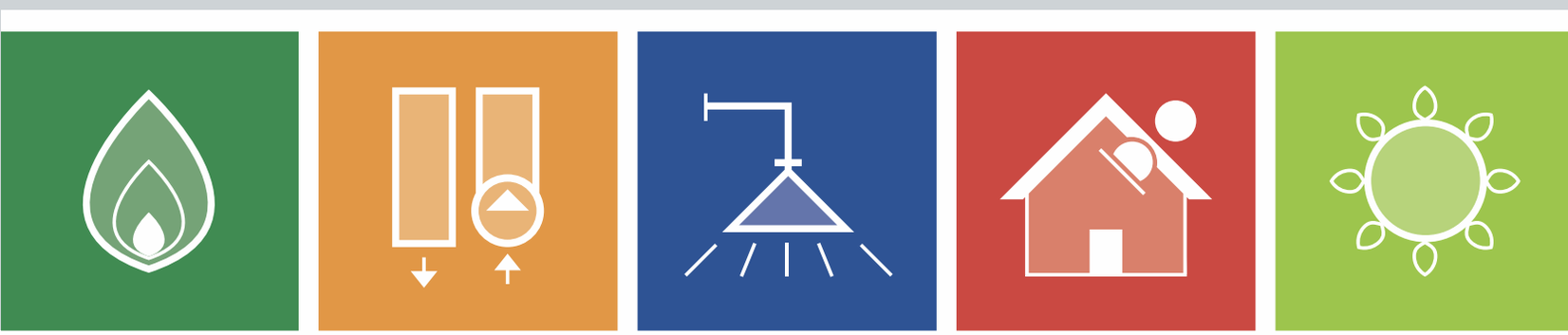
CALEFFI
Hydronic Solutions



GENERAL PRODUCT GUIDE 2017

Caleffi S.p.A. - Corporate Headquarters - Plant 1
Fontaneto d'Agogna - ITALY

1 COMPONENTS FOR CENTRAL HEATING SYSTEMS

2 AIR AND DIRT SEPARATION DEVICES

3 VALVES AND ACCESSORIES FOR RADIATORS

4 DISTRIBUTION MANIFOLDS, ZONE VALVES, BOXES AND ACCESSORIES

5 RADIANT PANEL SYSTEM CONTROL

6 COMPONENTS FOR DOMESTIC WATER SYSTEMS

7 BACKFLOW PREVENTION DEVICES

8 BALANCING DEVICES

9 FITTINGS

10 GAS SAFETY

11 EXPANSION VESSELS, MIXING VALVES, CHRONO-THERMOSTATS

12 HEAT SYSTEMS

13A COMPONENTS FOR SOLAR THERMAL SYSTEMS

13B COMPONENTS FOR HEAT PUMP SYSTEMS

13C COMPONENTS FOR BIOMASS SYSTEMS

14 SPARE PARTS

15 FITTING COUPLING

GENERAL INDEX

SERIES	Page
100	178
103 •	171
106	245
108	244
109	244
110	248-249-252
111	250
112	251-254
113	252
116	142
118	174
120	166-168
121	164
125	167-168
126	165
127	162
128	163
130	176
130 ≥ DN 65 •	176
130 •	178-250
132	175
140	177
142	177
145	160
146	161
150 •	108-109-233
151 •	108
1520 •	101-206
1522 •	266
161	101-207
165	98-100
166	98
167	99-100
171	102-103
172	104
182	105–108-113
200	46-54
201	54

SERIES	Page
202	55
203	55
204	55
205	44
209	44-46-54
210 •	53
210	52-53
220	49
221	49
222	49
223	49
224	49
225	50
226	50
227	49
240	230
250	226
251	226-227
2521	236
2522	237
2523 •	236
2527	237
253	226
2540	231
2543	231
2544	231
2545	231
2546	231
2547	231
2548	231
255 •	230
257 •	232-233
258	234
259 •	230
262	240-267
2620	235
263	241-263
264	238

SERIES	Page
265	239-267
278	228-229
279	229
280	258
281	259
282	260
2850	262
2851	263
2853	264
2855	265
3006	14
3010	64-65
3011	64-65
3012	64-65
3013	64-65
3014	65
3015	65
302	13
3037	144
3038	144
3041	158
3045	158
3046	158
3047	158
3048	158
305	13-246
309	9-145-242
311	7
312	7-9
313	7
314	7
315	15
319 •	147
3230	130-157
327	12
328	59
332	130-157
333	130-157

SERIES	Page
334	130-157
336	13
337	29
338	42-48
3380	48
339	42
340	56
341	56
342	42-48-56
343	42-56
347	94-95
347...S1	116
348	58
349	82-84
350	82
351	82
354	82-84-148
356	83
357	83
360	68-148
361	68
362	68
363	68
3640	83
3641	83-148
3642	83-92-148
3642..S1	116
381	60
382	60-91
383	48-60-91
384	60-91
385	91
386	91-93-116
3871	60
3872	61
391	89-117
391...S1	115
392	92

SERIES	Page
4001	44-46
4003	44–47
4004	44–47
4005	57
401	42
402	42
411	56
412	56
421	43
422	43
425	43
426	43
431	42-56
432	42-56
437	48-62-63
438	62-63
441	49
444	94-96
445	62-63
446	94
447	62
4490	49
4496	59
4497	59
4498	55
4501	58
452	58-59
453	59
454	59
455	58
456	57
459	59
472 •	55
475	55
501	26
5020	26-115
5021	26-27
5022	27

SERIES	Page
5024	27
5025	27
5026	27
5027	27
503 •	18
504	28
505	29
5054	29
5055	29
507	28
5080	29
5081	29
510	12
5121	7
513	9
514	9
519	12-100-178
520	131-135
5200	134
5201	134
521	131
5213	133-134
5217	133
5218	132
5219	132
522	131
5230 •	136
5231	136
524 •	137
525	144
5261	147
527 EST	6
528	146
5280	146
5281	146
529	12-257
530	8
531	8

SERIES	Page
5320	7
5321	8
5322	8
5327	8
5328	8
5330	122
5330..H	124-125
5331	122
5331..H	124
5332	122
5332..H	124
5334	122
5334..H	124
5335	123
5335..H	125
5336	122
5336..H	125
5337	122
5337..H	125
5338	122
5338..H	125
5339	123
534	145
5350	126
5350..H	127
5351	126
5360	128
5362	128
5365	128
5366	128
5370	144
537	128
538	15-178
539	129
540	11
541	10
542	11-256
543	11-256

THE CALEFFI GROUP

Caleffi S.p.A. - Plant 2
Fontaneto d'Agogna - ITALY

Caleffi S.p.A. - Plant 3
Gattico - ITALY

PRESSCO S.p.A. - Hot pressing and mechanical processing of brass components - Invorio - ITALY

Caleffi Armaturen GmbH
Mühlheim am Main - GERMANY

Caleffi International N.V.
Weert - BENELUX

Caleffi Lda
Maia Codex - PORTUGAL

GENERAL INDEX

SERIES	Page
544	11-257
5451	38
5452	38
5453	39-40-247
546	32-33
5461	32
5462	34
5463	36
5465	35
5466	37
5468	36
5469	34
547	12
547≥ DN 100 •	12
548	20
5495	21
550	23
551	26-30-31
5520	6
552080 •	6
5521	6
553	14
554	14
5557 •	145-202
556 •	202
5560 •	18
557 •	18
5580	16-203
558	16-203
559	22-23
560	29-61
561	27
5620	28
5621	28
5622	28
568 •	202
570	153-155
570≥ DN 150 •	155

SERIES	Page
572	152
573	152
573001	14
574	152-153
574000	15
574001	15
574011	14
575	153
575≥ DN 150 •	155
5750 •	155
576 •	129
577 •	19-155
578 •	129
579 •	19-155
580	154
5812	95
583	93
584	93
585	93
586	93
588	180-231
5881	180
5890	69
5891	69
591	95
592	84
598	85
5991	92-148
5993	92-148
5994	92
5995	92
5996	87-115
6000	138-139
6001	138-139
6001 •	138
6002 •	141
6005	140
603	149-242

SERIES	Page
605	109
610 •	204
611 •	204
612 •	204
6120	205
613 •	17-203
615 •	85
6150 •	203
6151 •	203
6152 •	203
616 •	206
617 •	176-206
618 •	208
619 •	209
620 •	209
6205 •	119-209
621 •	17
622 •	17-108
623 •	17
624 •	17
625 •	17-203
626	15
627 •	209
628 •	209
630	73
632	73
633	73
635	73
636	80
6370 •	205
637	80
638	78-79
639	81
641	75
642	75
643	75
6440	72-76-77
6442	72-76

SERIES	Page
6443	77-235
6443 3BY	72
6444	72
6450	71
6452	71
6453	71
6459	71
6460	70
6470	70
6480	70
6489	70
6490	70
650	85
6509	147
6561	51-74-90-119-160
6562	51-74-90-119
6563	51-74-90-119
6564	51-74-90-119
657	92
658	69-87-116
659	69-118
660	118
661	106-118
662	86-87-117
6620	86
6621	86
663	88-89
6630	89
6631	89
664	117
666...S1	114
667...S1	114
668...S1	114-115
669	92
670	112
671	112
675	107-113-116-118
676	74

SERIES	Page
677	74
678	74
679 •	61
679	62-63-94-95
680	94-95-116
681	48-62-63
683	12
687 •	18
688 •	18-92
689 •	18
690 •	16
691 •	16
692 •	16
693 •	16
694	16
695 •	16
738 •	208
739 •	208
740 •	210
741 •	210
75525	234
7558	139
837 •	197
838 •	198
839 •	196
841 •	195
842 •	195
8460 •	195
8461 •	195
847 •	194
848 •	194
850 •	194
852 •	195
8540 •	196
8541 •	197
855 •	199
8561 •	198
8562 •	198

SERIES	Page
8563 •	199
8565 •	199
860≥ Ø 75 •	186
860	186
861≥ Ø 75 •	186
861	186-254
862	187-254
863≥ Ø 75 •	187
863	187
864	187
865	187
866	188
867	188
868	188
869	188
870	188
871	188-252-254
875	186
876	186
877	192
878	192
879	192
886	192
887	192
888 •	187
890	191
891	191
893	191
894	191
900	183
903	183
904	183
9050	183
9057	184
9058	184
9060	184
9067	184
9068	185

SERIES	Page
910	185
913	185
914	185
930	181-185
933	181
936	48-60-181
940	182
941	182
942	182-254
943	182
944	182
945	182
946	182
947	182
948	182
960	189
961	189
962	189
963	189
964	189
966	190
967	190
968	190
970	190
975	189
980	190
986	190
R59681	28
R59720	28
R96006	181

THE CALEFFI GROUP

Caleffi North America Inc.
Milwaukee - UNITED STATES

Altecnic Ltd.
Stafford - UNITED KINGDOM

Caleffi Hidrotermika d.o.o.
Izola - SLOVENIA

Caleffi France
Valence - FRANCE

Caleffi China
Beijing - CHINA

Caleffi Japan
Tokyo - JAPAN

Caleffi South America
Montevideo - URUGUAY

Caleffi Romania
Bucharest - ROMANIA

Caleffi Brazil
Sau Paulo - BRAZIL

Caleffi Turkey
Istanbul - TURKEY

Caleffi Russia
Moscow - RUSSIA

All Valve Industries
Sydney - AUSTRALIA

Caleffi Poland
Krakow - POLAND

APPROVAL & CERTIFICATIONS

CISQ is a member of IQNet

ICIM

CERTIFICATO n. 0003/7
CERTIFICATE No.

CALEFFI S.p.A.

Sede e Unità Operativa
Strada Regionale 229, 25 - 28010 Fontaneto d'Agogna (NO)
Unità Operativa
Via Maggiate, 15 - 28013 Gattico (NO)
Italia

È CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD

UNI EN ISO 9001:2008

PER LE SEGUENTI ATTIVITÀ
FOR THE FOLLOWING ACTIVITIES

EA: 18

Progettazione, fabbricazione e commercializzazione per l'applicazione su impianti di riscaldamento, idrico-sanitari, solari, geotermici, biomassa, di: valvole di sicurezza, valvole e gruppi di regolazione, valvole per termosifoni, valvole per sfogo aria, valvole di bilanciamento, miscelatori termostatici, riduttori di pressione, valvole antiinquinamento, collettori di distribuzione, raccorderia, valvole di intercettazione, moduli d'utenza , satelliti d'utenza.

Design, manufacturing and trading for the application on heating, domestic water, solar, geothermal and biomass systems of: safety relief valves, regulating valves and units, radiator valves, air vents, flow balancing valves, thermostatic mixing valves, pressure reducing valves, antipollution valves, distribution manifolds, switches and fittings, check valves, zone box with distribution and temperature control, user modules with domestic water local production and zone temperature control.

Data emissione / First issue 11/06/1990
Emissione corrente / Current issue 07/05/2014
Data di scadenza / Expiring date 06/05/2017

ICIM S.p.A.

ACCREDIA

CISQ

bsi.

By Royal Charter

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that: Caleffi S.p.A.
S.R. 229 N. 25
Fontaneto d'Agogna (NO)
28010
Italy

Holds Certificate No: FM 21654

and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:

The design, manufacture and supply of safety relief valves, regulating valves and units, radiator valves, air vents, flow balancing valves, pressure reducing valves, backflow preventers, check valves, thermostatic mixing valves, filters, flow switches and fittings, zone box with distribution and temperature control, user modules with domestic water local production and zone temperature control.

For and on behalf of BSI:
Pietro Foschi - Strategic Delivery Director

Original Registration Date: 28/09/1992
Latest Revision Date: 13/04/2015
Effective Date: 08/05/2015
Expiry Date: 07/05/2018
Page: 1 of 2

IAF ANAB

...making excellence a habit.

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ICIM

CERTIFICATO n. 0512A/1
CERTIFICATE No.

CALEFFI S.p.A.

Sede e Unità Operativa
Strada Regionale 229, 25 - 28010 Fontaneto d'Agogna (NO)
Progettazione e fabbricazione di componenti idrotermici mediante lavorazioni meccaniche (transfer e plurimandrino) e assemblaggio
Unità Operativa
Via Maggiate, 15 - 28013 Gattico (NO)
Fabbricazione di componenti idrotermici mediante lavorazioni meccaniche (transfer), stampaggio plastico a iniezione e assemblaggio
Italia

È CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD

UNI EN ISO 14001:2004

PER LE SEGUENTI ATTIVITÀ
FOR THE FOLLOWING ACTIVITIES

EA: 18

Progettazione e fabbricazione di componenti idrotermici, sia per applicazioni in campo civile che industriale, realizzati mediante lavorazioni meccaniche (transfer e plurimandrino), stampaggio plastico a iniezione e assemblaggio.

Design and manufacture of hydrothermal components for civil and industrial applications, by mechanical processes (transference and multi-spindle), plastic injection molding and assembly.

Data emissione / First issue 05/06/2012
Emissione corrente / Current issue 05/06/2015
Data di scadenza / Expiring date 04/06/2018

ICIM S.p.A.

ACCREDIA

CISQ

COMUNITÀ EUROPEA

Certificato AEO

IT AEOF 12 0576

1. Titolare del Certificato AEO
CALEFFI SPA
Codice EORI IT01610430962

2. Autorità che rilascia il Certificato
Agenzia delle Dogane
Direzione centrale gestione tributi e rapporto con gli utenti - Ufficio per i regimi doganali e fiscali

Il Titolare indicato nel riquadro 1 è un

Operatore economico autorizzato

Semplificazioni doganali / Sicurezza (AEOF)

3. Data di validità del certificato 29/05/2012

Il Direttore dell'Ufficio
DR. [illegible]

CE

CE 1115

ENEC

ENEC 03

PZH

INAIL

DIN CERTCO

TÜVRheinland ZERTIFIZIERT

DIN DVGW CERT

DVGW CERT DIN EN 1567 UBA KTW

BELGAQUA

kiwa

SP 1002 Certifering

SVGW SSIG

NF

ACS ATTESTATION DE CONFORMITÉ SANITAIRE

BUILDCERT

TMV 2 SCHEME

WRAS APPROVED PRODUCT CERTIFICATION MARK

TMV 3 SCHEME

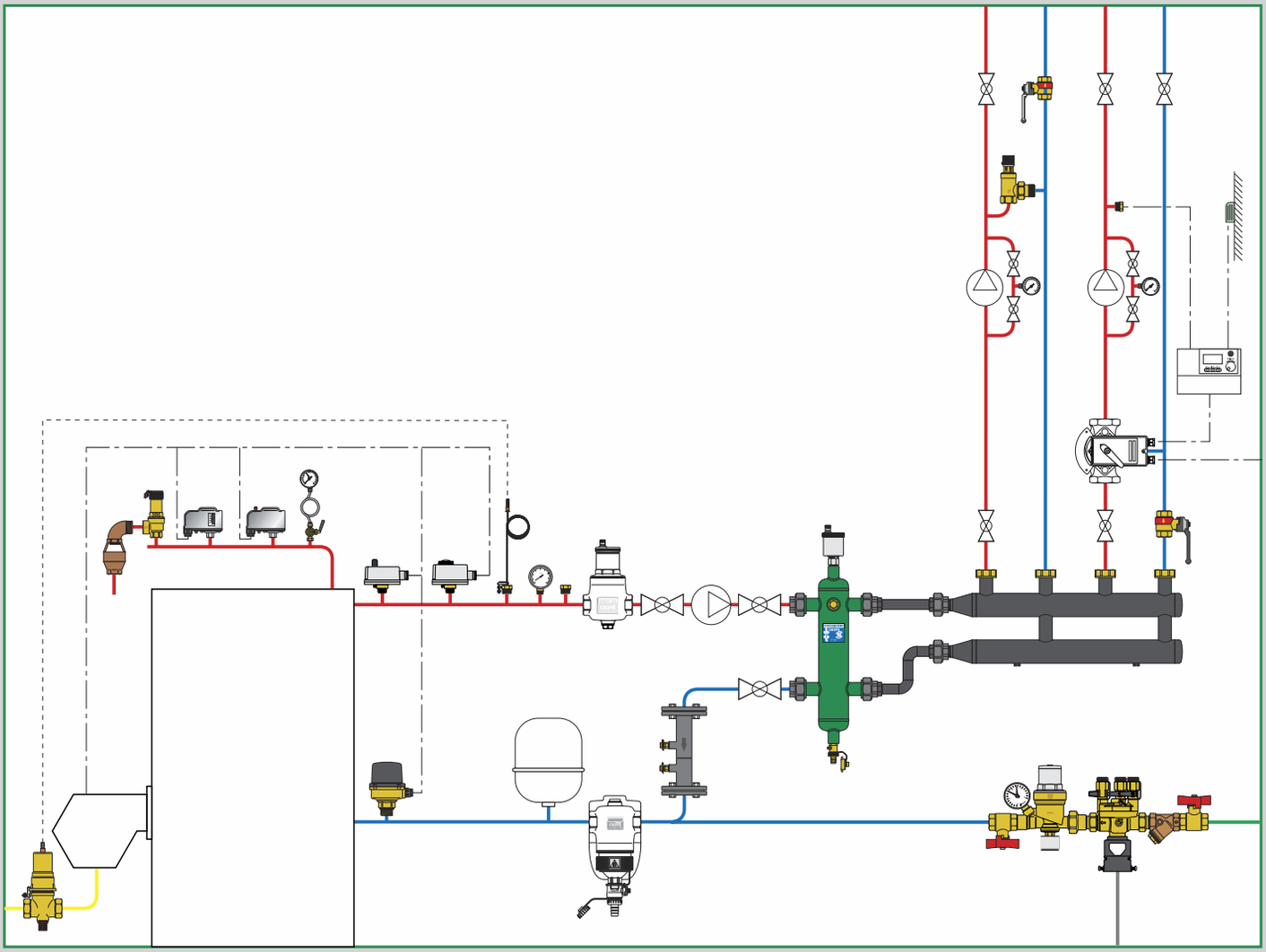
va

dtc

SABS APPROVED SANS 198

COMPONENTS FOR CENTRAL HEATING SYSTEMS

This diagram is just an indication



Safety relief valves
Fuel shut-off valves
Temperature relief valves
Differential by-pass valve
Air separators
Automatic filling units
Thermostats, pressure switches, flow switches
Pressure gauges and temperature gauges
Strainers
Hydraulic separators
Manifolds for central heating system

527 EST

tech. broch. 01053

Safety relief valve.
Female connections.
Discharge overpressure 10%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings: 2,25 - 2,5 - 2,7 - 3 - 3,5 - 4 - 4,5 - 5 - 5,4 - 6 bar.

Code				
5274••EST	1/2″	x 3/4″	1	25
5275••EST	3/4″	x 1″	1	20
5276••EST	1″	x 1 1/4″	1	5
5277••EST	1 1/4″	x 1 1/2″	1	5

527 EST
Special settings

tech. broch. 01053

Safety relief valve.
Female connections.
Discharge overpressure 10%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Non-standard pressure settings available on request: 1 - 1,5 - 2 - 7 - 8 bar.

Code				
5274••EST	1/2″	x 3/4″	1	25
5275••EST	3/4″	x 1″	1	20
5276••EST	1″	x 1 1/4″	1	5
5277••EST	1 1/4″	x 1 1/2″	1	5

•• Code completion

bar	••	bar	••	bar	••
1	**10**	2,7	**27**	5	**50**
1,5	**15**	3	**30**	5,4	**54**
2	**20**	3,5	**35**	6	**60**
2,25	**22**	4	**40**	7	**70**
2,5	**25**	4,5	**45**	8	**80**

5521

tech. broch. 01053

Elbow tundish.

Code				
552140	1/2″ M	x 3/4″ F	1	–
552150	3/4″ M	x 3/4″ F	1	–
552160	1″ M	x 1 1/4″ F	1	–
552170	1 1/4″ M	x 1 1/4″ F	1	–

5520

tech. broch. 01053

Straight tundish.

Code				
552050	3/4″ F	x 3/4″ F	1	25
552070	1 1/4″ F	x 1 1/4″ F	1	–

5520

tech. broch. 01053

Pre-formed “special” tundish.

Code				
552080	1 1/2″ F		1	–

311

tech. broch. 01253

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings: 2,5 - 3 - 3,5 - 4 - 5 - 6 - 7 - 8 bar.
2 bar for only 3/4" size.

Code			
3114 ●●	1/2"	1	50
3115 ●●	3/4"	1	50

311

tech. broch. 01253

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 15%.
Power rating: 110 kW.
Temperature range: 5–110°C.
Certified to NF P 52-001 - Class 2.

Code			
311431	1/2" 3 bar	1	50

312

tech. broch. 01253

Safety relief valve.
Male - female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings: 1,8 - 2,5 - 3 - 3,5 - 4 - 5 - 6 - 7 - 8 bar.

Code			
3124 ●●	1/2"	1	50

313

tech. broch. 01253

Safety relief valve.
Female connections.
With pressure gauge connection.
Discharge overpressure 20%.
Closing differential 15%.
Power rating: 110 kW.
Temperature range: 5–110°C.
Certified to NF P 52-001 - Class 2.

Code			
313433	1/2" 3 bar	50	–

313

tech. broch. 01253

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Max. pressure gauge temperature: 90°C.
Settings: 2,5 - 3 - 6 - 7 - 8 bar.

Code					
3134 ●●	1/2"	with pressure gauge		1	50
3135 ●●	3/4"	with pressure gauge		1	50
313432	1/2" 3	bar	with pressure gauge connection	1	50
313532	3/4" 3	bar	with pressure gauge connection	1	50

5121

Safety relief valve.
Male - female connections.
Discharge overpressure 20%.
Closing differential 15%.
Power rating: 110 kW.
Temperature range: 5–110°C.
Certified to NF P 52-001 - Class 2.

Code			
512131	1/2" 3 bar	50	–

314

tech. broch. 01253

Safety relief valve.
Male - female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Max. pressure gauge temperature: 90°C.
Settings: 2,5 - 3 - 6 - 7 - 8 bar.

Code					
3144 ●●	1/2"	with pressure gauge		1	50
314432	1/2" 3	bar	with pressure gauge connection	1	50
314462	1/2" 6	bar	with pressure gauge connection	1	50

5320

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Power rating: 50 kW.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.

www.tuv.com
ID 0000014051

Code				
532042	1/2" x 3/4" 2,5 bar	1	50
532043	1/2" x 3/4" 3 bar	1	50

5321

Safety relief valve. Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Power rating: 50 kW.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.
Max. pressure gauge temperature: 90°C.

www.tuv.com ID 0000014051

Code			
532142	1/2″ x 3/4″ 2,5 bar	1	50
532143	1/2″ x 3/4″ 3 bar	1	50

5322

Safety relief valve. Female connections.
With pressure gauge connection.
Discharge overpressure 20%.
Closing differential 20%.
Power rating: 50 kW.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.

www.tuv.com ID 0000014051

Code			
532242	1/2″ x 3/4″ 2,5 bar	1	50
532243	1/2″ x 3/4″ 3 bar	1	50

5327

Safety relief valve.
Male - female connections.
Discharge overpressure 20%.
Closing differential 20%.
Power rating: 50 kW.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.

www.tuv.com ID 0000014051

Code			
532742	1/2″ x 3/4″ 2,5 bar	48	–
532743	1/2″ x 3/4″ 3 bar	48	–

5328

Safety relief valve.
Male - female connections.
With pressure gauge connection.
Discharge overpressure 20%.
Closing differential 20%.
Power rating: 50 kW.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.

www.tuv.com ID 0000014051

Code			
532842	1/2″ x 3/4″ 2,5 bar	1	50
532843	1/2″ x 3/4″ 3 bar	1	50

530

Safety relief valve. Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.

www.tuv.com ID 0000013864

Code			
530525	3/4″ x 1″ 2,5 bar	1	25
530530	3/4″ x 1″ 3 bar	1	25

530

Safety relief valve. Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Max. percentage of glycol: 50%.
Temperature range: 5–120°C.
Settings: 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 bar.
Settings 4 - 5 - 6 - 7 - 8 - 9 bar without TÜV certification.

www.tuv.com ID 0000013864

Code			
5306 ••	1″ x 1 1/4″	1	25
5307 ••	1 1/4″ x 1 1/2″	1	10

531

Safety relief valve
for domestic water systems.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Medium: water.
Temperature range: 5–95°C.
Settings: 4 - 6 - 8 - 10 bar.

www.tuv.com ID 0000013973

Code			
5314 ••	1/2″ x 3/4″	1	50
5315 ••	3/4″ x 1″	1	25

531

Safety relief valve
for domestic water systems.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
Medium: water.
Temperature range: 5–95°C.
Settings: 4 - 6 - 8 - 10 bar.

www.tuv.com ID 0000013973

Code			
5316 ••	1″ x 1 1/4″	1	25
5317 ••	1 1/4″ x 1 1/2″	1	10

513

tech. broch. 01253

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings: 1,5 - 2 - 2,5 - 3 - 3,5 - 6 - 7 - 8 bar.

Code			
5134 ••	1/2″	1	50

513

tech. broch. 01253

Safety relief valve.
Female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings:
2,5 - 3 - 3,5 - 6 - 7 - 8 bar.
1,5 - 2 - 4 bar only for 1″ x 1 1/4″ size.

Code			
5136 ••	1″ x 1 1/4″	1	25
5137 ••	1 1/4″ x 1 1/2″	1	10

514

tech. broch. 01253

Safety relief valve.
Male - female connections.
Discharge overpressure 20%.
Closing differential 20%.
PN 10.
Temperature range: 5–110°C.
Settings: 2 - 2,5 - 3 - 3,5 - 4 - 5 - 6 - 7 - 8 bar.

Code			
5144 ••	1/2″	1	50

312

Safety relief valve.
CR dezincification resistant alloy body.
For domestic water systems.
M x Ø 15 compression end.
With stainless steel seat.
Discharge overpressure 20%.
Closing differential 20%.
Temperature range: 5–110°C.
Settings: 100 - 200 - 400 - 600 kPa.
5 - 8 bar.

SANS 198

Code			
312417	1/2″ M x Ø 15 - 100 kPa	50	–
312406	1/2″ M x Ø 15 - 200 kPa	50	–
312405	1/2″ M x Ø 15 - 400 kPa	50	–
312407	1/2″ M x Ø 15 - 600 kPa	50	–
312415	1/2″ M x Ø 15 - 5 bar	50	–
312418	1/2″ M x Ø 15 - 8 bar	50	–

309

tech. broch. 01130

Temperature and pressure relief valve.
CR dezincification resistant alloy body.
For domestic water system,
to protect the hot water storage.
Set temperature: 90°C.
Discharge rating: 1/2″ - 3/4″ x Ø 15: 10 kW.
3/4″ x Ø 22: 25 kW.
Settings: 3 - 4 - 6 - 7 - 10 bar.
Settings certified to EN 1490: 4 - 7 - 10 bar.

BUILDCERT

Code			Probe length (mm)		
309430	1/2″ M x Ø 15	3 bar	100	1	20
309440	1/2″ M x Ø 15	4 bar	100	1	20
309460	1/2″ M x Ø 15	6 bar	100	1	20
309470	1/2″ M x Ø 15	7 bar	100	1	20
309400	1/2″ M x Ø 15	10 bar	100	1	20
309542	3/4″ M x Ø 15	4 bar	100	1	20
309530	3/4″ M x Ø 22	3 bar	100	1	20
309560	3/4″ M x Ø 22	6 bar	100	1	20
309570	3/4″ M x Ø 22	7 bar	100	1	20
309500	3/4″ M x Ø 22	10 bar	100	1	20
309435	1/2″ M x Ø 15	3 bar	200	1	20
309445	1/2″ M x Ø 15	4 bar	200	1	20
309465	1/2″ M x Ø 15	6 bar	200	1	20
309475	1/2″ M x Ø 15	7 bar	200	1	20
309405	1/2″ M x Ø 15	10 bar	200	1	20
309547	3/4″ M x Ø 15	4 bar	200	1	20
309535	3/4″ M x Ø 22	3 bar	200	1	20
309565	3/4″ M x Ø 22	6 bar	200	1	20
309575	3/4″ M x Ø 22	7 bar	200	1	20
309505	3/4″ M x Ø 22	10 bar	200	1	20

309

Temperature and pressure relief valve.
CR dezincification resistant alloy body.
For domestic water system,
to protect the hot water storage.
Set temperature: 95°C.
Discharge rating: 25 kW.
Setting: 6 bar.
For systems with nominal pressure of 400 kPa.

SANS 198

Code			Probe length (mm)		
309563	3/4″ M x Ø 22	6 bar	100	1	20

•• Code completion

bar	••	bar	••	bar	••
1,5	**15**	3,5	**35**	8	**80**
1,8	**28**	4	**40**	9	**90**
2	**20**	5	**50**	10	**10**
2,5	**25**	6	**60**		
3	**30**	7	**70**		

FUEL SHUT-OFF VALVES

541

tech. broch. 01046

Fuel shut-off valve.
Brass body.
Female threaded connections.
Max. working pressure: 50 kPa.
Capillary length: 5 or 10 m.
Settings: 98°C, 110°C, 120°C, 140°C, 160°C, 180°C.

Code		Settings		
54104 •	1/2″	...°C	1	–
54105 •	3/4″	...°C	1	–
54106 •	1″	...°C	1	–
54107 •	1 1/4″	...°C	1	–
54108 •	1 1/2″	...°C	1	–
54109 •	2″	...°C	1	–
541140*	1/2″	110°C	1	–
541150*	3/4″	110°C	1	–
541160*	1″	110°C	1	–
541170*	1 1/4″	110°C	1	–
541180*	1 1/2″	110°C	1	–
541190*	2″	110°C	1	–

** Capillary length 5 m only*

541

tech. broch. 01046

Fuel shut-off valve.
Bronze body.
Flanged connections PN 16.
To be coupled
with flat counterflanges EN 1092-1.
Max. working pressure: 11 kPa.
Capillary length: 5 or 10 m.
Settings: 98°C, 110°C, 120°C, 140°C, 160°C, 180°C.

Code		Settings		
54160 •	DN 65	...°C	1	–
54180 •	DN 80	...°C	1	–
541620*	DN 65	110°C	1	–
541820*	DN 80	110°C	1	–

** Capillary length 5 m only*

541

tech. broch. 01046

Fuel shut-off valve
for high pressure use.
Bronze body.
Flanged connections PN 16.
To be coupled
with flat counterflanges EN 1092-1.
Max. working pressure: 50 kPa.
Capillary length: 5 or 10 m.
Settings: 98°C, 110°C, 120°C, 140°C, 160°C, 180°C.

Code		Settings		
54161 •	DN 65	...°C	1	–
54181 •	DN 80	...°C	1	–
541630*	DN 65	110°C	1	–
541830*	DN 80	110°C	1	–

** Capillary length 5 m only*

• Code completion

	541	**540**	capillary 5 m	capillary 10 m
setting	98°C	97°C	**0**	**1**
	120°C	120°C	**2**	**3**
	140°C	140°C	**4**	**5**
	160°C	160°C	**6**	**7**
	180°C	180°C	**8**	**9**

FUEL SHUT-OFF VALVES

540

tech. broch. 01074

Fuel shut-off valve.
Aluminium body.
Female threaded connections.
Max. working pressure: 50 kPa.
Capillary length: 5 m.
Setting: 98°C.

Code		Setting		
540040	1/2″	98°C	1	–
540050	3/4″	98°C	1	–
540060	1″	98°C	1	–
540070	1 1/4″	98°C	1	–
540080	1 1/2″	98°C	1	–
540090	2″	98°C	1	–

540

tech. broch. 01074

Fuel shut-off valve.
Aluminium body.
Flanged connections PN 16.
To be coupled
with flat counterflanges EN 1092-1.
Max. working pressure: 50 kPa.
Capillary length: 5 or 10 m.
Settings: 97°C, 110°C, 120°C, 140°C,
160°C, 180°C.

Code		Settings		
54060 •	DN 65	...°C	1	–
54080 •	DN 80	...°C	1	–
54010 •	DN 100	...°C	1	–
540610*	DN 65	110°C	1	–
540810*	DN 80	110°C	1	–
540110*	DN 100	110°C	1	–

** Capillary length 5 m only*

TEMPERATURE RELIEF VALVES

542

tech. broch. 01001

Temperature relief valve, with fail-safe action.
Manual reset for burner switch off
or alarm activation.
Working pressure: 0,3 bar ≤ P ≤ 10 bar.
Temperature range: 5–100°C.
Setting temperature: 98°C and 99°C.
Discharge rating:
1 1/2″ x 1 1/4″ - 136 kW.
1 1/2″ x 1 1/2″ - 419 kW.

Code		Setting		
542870	1 1/2″ M x 1 1/4″ F	98°C	1	10
542880	1 1/2″ M x 1 1/2″ F	99°C	1	10

543

tech. broch. 01057

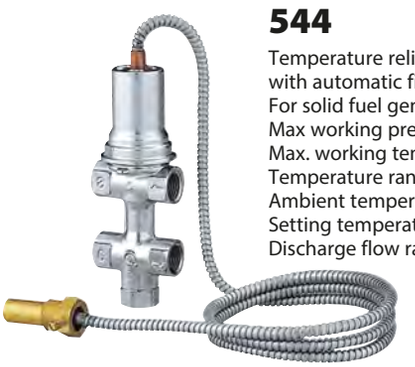
Temperature safety relief valve,
with double safety sensor,
for solid fuel generators.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.
Setting temperature: 98°C (0/-4°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 3000 l/h.
Capillary length: 1300 mm.
Certified to EN 14597.

www.tuv.com
ID 0000021744

Code		Setting			
543513	3/4″ F	98°C		1	10
543503	3/4″ F	98°C	yellow brass body	1	10

544

tech. broch. 01058



Temperature relief valve, with positive action
with automatic filling.
For solid fuel generators.
Max working pressure: 6 bar.
Max. working temperature: 110°C.
Temperature range: 5–110°C.
Ambient temperature range: 1–50°C.
Setting temperature: 100°C (0/-5°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 1600 l/h.
Capillary length: 1300 mm.

Code		Setting		
544400	1/2″	100°C	1	10

544

Temperature relief valve
with automatic filling for solid fuel generators,
with knob for manual discharge.
Max. working pressure: 6 bar.
Max. working temperature: 120°C.
Setting temperature: 100°C (0/-5°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 1800 l/h.

Code		Setting		
544501	3/4″	100°C	1	–

529

tech. broch. 01226

Draught regulating valve.
Male threaded connection.
Adjustment temperature range: 30–90°C.
Certified to EN 14597.

Code		Pocket length (mm)		
529050	3/4″ M ISO 7/1	58	1	10
529150	3/4″ M ISO 7/1	58	1	10
529151	3/4″ M ISO 7/1	78	1	10

327 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve for heating systems.
Low head losses.
Max. working pressure: 16 bar.
Temperature range: 5–110°C.

Code				
327400	1/2″	butterfly handle	10	–
327500	3/4″	butterfly handle	10	–
327600	1″	lever handle	4	–
327700	1 1/4″	lever handle	4	–
327800	1 1/2″	lever handle	2	–
327900	2″	lever handle	1	–

510

tech. broch. 01045

Anti-thermosiphon check valve to prevent natural circulation of water.
Removable cap allows straight or angled installations.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code			
510500	3/4″	1	20
510600	1″	1	20
510700	1 1/4″	1	20

519

tech. broch. 01007

Differential by-pass valve, adjustable with graduated scale.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Max. percentage of glycol: 30%.

Code		Setting range m w.g.		
519500	3/4″	1–6	1	50
519504	3/4″	10–40	1	50
519700	1 1/4″	1–6	1	10

547

Air separator.
Cast iron body.
Female connections.

Code			
547060	1″	1	10
547070	1 1/4″	1	10
547080	1 1/2″	1	10
547090	2″	1	10
547200	2 1/2″	1	–
547300	3″	1	–

547

Air separator.
Steel body.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.

Code			
547400	DN 100	1	–
547500	DN 125	1	–

683

tech. broch. 01040

Flow rate metering device.
Female connections.
Equipped with pressure test ports.
Max. working pressure: 10 bar.
Temperature range: -5–110°C.

Code			
683005	3/4″	1	–
683006	1″	1	–

683

tech. broch. 01040

Flow rate metering device.
Steel body. Flanged connections.
To be coupled with flat counterflanges EN 1092-1
DN 32–DN 100, PN 6;
DN 125–DN 200, PN 16.
Temperature range: -5–110°C.
Equipped with pressure test ports, counterflanges, bolts and seals.

Code			
683030	DN 32	1	–
683040	DN 40	1	–
683050	DN 50	1	–
683060	DN 65	1	–
683080	DN 80	1	–
683100	DN 100	1	–
683120	DN 125	1	–
683150	DN 150	1	–
683170	DN 175	1	–
683200	DN 200	1	–

For flow rate measurement, the electronic measuring station 130 series (page178), can be used.

336

Instrument holder for heating systems.
Equipped with automatic shut-off cock for expansion vessel and male connection for safety valve 531 series.
Max. working temperature: 110°C.
Up to 50 kW.

Code			
336600	3/4″	2	10

336

Assembled instrument holder for heating systems.
Equipped with air vent, safety relief valve, pressure gauge and automatic shut-off cock for expansion vessel.
Max. working temperature: 110°C.
Up to 50 kW.

Code			
336630	3/4″ 3 bar with automatic shut-off cock	1	5
336631	3/4″ 3 bar with automatic ball shut-off cock	1	5

302

Combined air separator with heating system accessories.
Equipped with air vent, safety relief valve and pressure gauge.
Max. working temperature: 110°C.
Up to 50 kW.

Code			
302630	1″ 3 bar	1	10
302631	1″ 3 bar with pre-formed insulation	1	10

305

Instrument holder kit in composite material for heating systems.
Equipped with air vent, safety relief valve in composite material, pressure gauge, automatic shut-off cock for expansion vessel and fixing bracket.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

Code			
305503	3/4″ 3 bar TÜV	1	–

305

Instrument holder in composite material for heating systems.
Equipped with air vent, safety relief valve in composite material and pressure gauge.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

Code			
305663	1″ 3 bar TÜV	1	5

305

Instrument holder in composite material for heating systems.
Equipped with air vent, safety relief valve and pressure gauge.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

Code			
305572	3/4″ 2,5 bar TÜV	1	–
305671	1″ 1,8 bar	1	–
305673	1″ 3 bar NF	1	–

3006
ROBOFIL

Boiler filling loop.
CR dezincification resistant alloy body.
Equipped with double check valve with shut-off valve, hose connection and shut-off valve.
Max. working pressure: 10 bar.
Max. working temperature: 95°C.
Flexible hose length: 400 mm.

Code			
300600		1	10

553

tech. broch. 01061

Pre-adjustable automatic filling unit, anti-scale, inspectionable, with pressure setting indicator, manual cock, strainer, check valve.
Setting pressure range: 0,2–4 bar.
Max. inlet pressure: 16 bar.
Max. working temperature: 65°C.

Code			
553540	1/2″ with pressure gauge connection	1	10
553640	1/2″ with pressure gauge	1	10

553

Pre-adjustable automatic filling unit, anti-scale, inspectionable, with pressure setting indicator, manual cock, strainer and check valve.
With hose connection.
Setting pressure range: 0,2–4 bar.
Max. inlet pressure: 16 bar.
Max. working temperature: 65°C.

Code			
553740	1/2″ with pressure gauge connection	1	10
553840	1/2″ with pressure gauge	1	10

553

tech. broch. 01025

Automatic filling unit, with manual cock, strainer, check valve.
Setting pressure range: 0,3–4 bar.
Max. inlet pressure: 16 bar.
Max. working temperature: 70°C.

Code			
553040	1/2″ with pressure gauge connection	1	10
553140	1/2″ with pressure gauge	1	10

554

tech. broch. 01125

Pre-adjustable automatic filling unit for high flow rates, with double shut-off valve, check valve.
Self-contained replaceable cartridge.
Setting pressure range: 1–6 bar.
Max. inlet pressure: 16 bar.
Max. working temperature: 60°C.

Code			
554040	1/2″ with pressure gauge connection	1	–
554140	1/2″ with pressure gauge	1	–
554150	3/4″ with pressure gauge	1	–

573001

tech. broch. 01061

Automatic charging unit with **CAa type** backflow preventer and shut-off valve.
Filling unit setting pressure range: 0,2–4 bar.
Max. working pressure: 10 bar.
Max. working temperature: 65°C.
Backflow preventer certified to EN 14367 standard.

Code			
573001	1/2″	1	5

574011

tech. broch. 01161

Compact automatic charging unit with **BA type** backflow preventer, shut-off valve and strainer.
With pre-formed insulation.
Filling unit setting pressure range: 0,2–4 bar.
Max. working pressure:10 bar.
Max. working temperature: 65°C.
Backflow preventer certified to EN 12729 standard.

SC0933-09

Code			
574011	1/2″	1	5

574000

tech. broch. 01061

Automatic charging unit with **BA type** backflow preventer, Y-strainer and shut-off valve.
Filling unit setting pressure range: 0,2–4 bar.
Max. working pressure: 10 bar.
Max. working temperature: 65°C.
Backflow preventer certified to EN 12729 standard.

Code			
574000	1/2″	1	5

574001

tech. broch. 01125

Automatic charging unit with **BA type** backflow preventer, Y-strainer and shut-off valve.
Pressure reducing valve setting pressure range: 1–6 bar.
Max. working pressure: 10 bar.
Max. working temperature: 60°C.
Backflow preventer certified to EN 12729 standard.

Code			
574001	3/4″	1	–

315

Flow switch
with magnetically operated contacts.
230 V - 0,02 A (an appropriate relais must be used in case of higher power consumption).
Max. working pressure: 6 bar.
Temperature range: -15–100°C.

Contact closing with **increasing flow rate** at: 156 l/h (1/2″) 456 l/h (3/4″)
Contact opening with **decreasing flow rate** at: 108 l/h (1/2″) 348 l/h (3/4″)

Code			
315400	1/2″	1	50
315500	3/4″	1	25

626

tech. broch. 01052

Flow switch.
Suitable for 1″ to 8″ pipes.
250 V (ac) - 15 (5) A.
Max. working pressure: 10 bar.
Temperature range: -30–120°C.
Protection class: IP 54.

Code			
626600	1″	1	5
626009	set of blades	1	–

538

Drain cock with hose connection and cap.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code			
538201	1/4″ M	1	–
538400	1/2″ M	1	100

558

Automatic shut-off cock,
for expansion vessels.
For domestic water circuit.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code			
558500	3/4″	1	50

558

Automatic shut-off cock,
for expansion vessel,
with drain cock.
For domestic water circuit.
Max. working pressure: 6 bar.
Max. working temperature: 85°C.

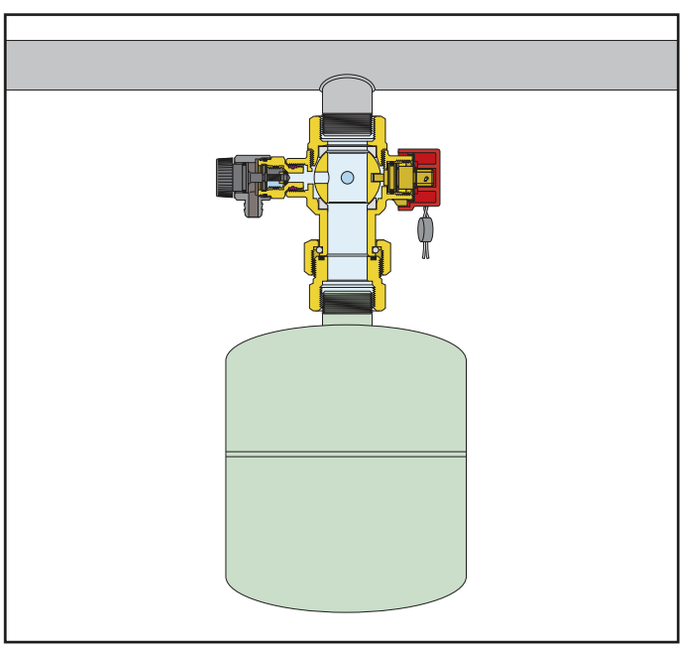
Code			
558510	3/4″	1	50

5580

Ball shut-off valve,
for expansion vessels,
with drain cock.
For domestic water circuit.
Max. working pressure: 6 bar.
Max. working temperature: 85°C.

Code			
558050	3/4″	1	20
558060	1″	1	20
558070	1 1/4″	1	20

Application diagram of shut-off valve 5580 series



690

Three way tap for INAIL
master pressure gauge.
Max. working pressure: 15 bar.
Temperature range: 5–90°C.

Code			
690200	1/4″	5	–
690300	3/8″	5	–
690400	1/2″	5	–

691

Water hammer reducing loop.
In chrome plated copper.

Code			
691200	1/4″	5	–
691300	3/8″	5	–
691400	1/2″	5	–

692

Thermometer in sleeve.
1/2″ pocket connection.

Code	Pocket length	°C		
692000	45 mm	0–120	1	–

693

Bulb thermometer.

Code	°C		
693000	0–120	1	–

694

INAIL test pocket,
1/2″ connection.

Code	Pocket length		
694045	45 mm	1	–
694100	100 mm	1	–

695

System filling test pump. Complete with pressure gauge and hose for connection to the system.
Max. working pressure: 50 bar.
Water content: 12 l.
Pressure gauge scale: 0–60 bar.
Hose connection: 1/2″.
Hose length: 1,5 m.
Can be used also with glycol solutions for solar thermal systems.

Code			
695000		1	–

THERMOSTATS AND PRESSURE SWITCHES

621

Adjustable contact thermostat.
Temperature range: 20–90°C.
Protection class: IP 20.

Code			
621000	1	10

622

Adjustable immersion thermostat.
Temperature range: 0–90°C.
With 1/2" connection pocket.
Protection class: IP 40.

Code			
622000	1	10

623

Double immersion thermostat:
- safety thermostat with manual reset, setting 100°C (+0°C -6°C), setting 110°C (+0°C -6°C)
- adjustment thermostat, temperature range: 0–90°C, temperature range: 0–100°C.

With 1/2" connection pocket.
Protection class: IP 40.

Code	Safety setting	Adjustment range		
623000	100°C	0–90°C	1	5
623100	110°C	0–100°C	1	5

624

Immersion safety thermostat, with manual reset,
- setting 100°C (+0°C -6°C),
- setting 110°C (+0°C -6°C).

With 1/2" connection pocket.
Protection class: IP 40.

Code	Safety setting		
624000	100°C	1	10
624100	110°C	1	10

625

Safety pressure switch, with manual reset.
250 V - 16 (10) A.
Max. working pressure: 5 bar.
Ambient temperature range: -10–50°C.
Medium temperature range: 0–110°C.
1/4" female connection.
Protection class: IP 44.

Code	Setting range		
625000	1–5 bar	1	50

625

Minimum pressure safety switch, with manual reset.
250 V - 16 (10) A.
Max. working pressure: 5 bar.
Ambient temperature range: -10–50°C.
Medium temperature range: 0–110°C.
1/4" female connection.
Protection class: IP 44.

Code	Setting range		
625100	0,5–1,7 bar	1	10

625

Pressure switch for boosting sets.
Up to 500 V three-pole - 16 A.
Max. working pressure: 12 bar.
Ambient temperature range: -10–55°C.
Medium temperature range: 0–55°C.
1/4" female connection.
Protection class: IP 44.

Code	Setting range		
625005	1–5 bar	1	10
625010	3–12 bar	1	10

613

Float switch,
250 V - 10 A.
Heavy duty approved.

Code	Cable length		
613030	3 m	1	5
613050	5 m	1	5

557

Pressure gauge.
Accuracy class: UNI 2,5.
Temperature range: -20–90°C.

Code	bar		Position	Ø		
557104	0–4	1/4″	central back conn.	50	1	–
557204	0–4	1/4″	"off-centred" back conn.	50	1	–
557304	0–4	1/4″	bottom conn.	50	1	–
557106	0–6	1/4″	central back conn.	50	1	–
557306	0–6	1/4″	bottom conn.	50	1	–
557310	0–10	1/4″	bottom conn.	50	1	–
557410	0–10	1/4″	central back conn.	63	1	–
557425	0–25	1/4″	central back conn.	63	1	–
557704	0–4	3/8″	bottom conn.	80	1	–
557706	0–6	3/8″	bottom conn.	80	1	–
557710	0–10	3/8″	bottom conn.	80	1	–

503

Temperature/pressure gauge.
1/2″ central back connection.
With shut-off pocket.
Ø 80 mm.
Accuracy class:
- temperature gauge UNI 2;
- pressure gauge UNI 2,5.

Code	bar	°C		
503040	0–4	0–120	1	10
503060	0–6	0–120	1	10

503

Temperature/pressure gauge.
1/2″ bottom connection.
With shut-off pocket.
Ø 80 mm.
Accuracy class:
- temperature gauge UNI 2;
- pressure gauge UNI 2,5.

Code	bar	°C		
503140	0–4	0–120	1	20
503160	0–6	0–120	1	20

5560

Pressure gauge
for expansion vessel pressure test.
Accuracy class: UNI 2,5.

Code	bar		
556000	0–10	1	–

688

Temperature gauge.
1/2″ central back connection.
With pocket.
Ø 80 mm.
Accuracy class: UNI 2.

Code	Pocket length	°C		
688000	45 mm	0–120	1	10
688010	100 mm	0–120	1	5
688011	without pochet	0–120	1	5

688

Temperature gauge.
1/2″ bottom connection.
With pocket.
Ø 80 mm.
Accuracy class: UNI 2.

Code	Pocket length	°C		
688100	45 mm	0–120	1	10

687

Temperature gauge for cooling systems.
1/2″ central back connection.
With pocket.
Ø 80 mm.
Accuracy class: UNI 2.

Code	Pocket length	°C		
687000	45 mm	-30–50	1	–
687010	100 mm	-30–50	1	–

687

Temperature gauge for cooling.
1/2″ bottom connection.
With pocket.
Ø 80 mm.
Accuracy class: UNI 2.

Code	Pocket length	°C		
687110	100 mm	-30–50	1	10

689

Flow gauge.
3/8″ bottom connection.
Ø 80 mm.
Accuracy class: UNI 1,6.
Temperature range: -20–90°C.

Code	m w.g.		
689010	0–10	1	20
689016	0–16	1	20
689025	0–25	1	30

For higher pressures see pressure gauges 557 series.

STRAINERS

577

Y-strainer.
Bronze body,
1/2"–2": PN 16,
2 1/2" - 3": PN 10.
Female connections.
Temperature range: -20–110°C.
Max. percentage of glycol: 30%.
Strainer on stainless steel stretched plate.

Code		Mesh size Ø (mm)		
577004	1/2"	0,40	1	–
577005	3/4"	0,40	1	–
577006	1"	0,40	1	–
577007	1 1/4"	0,47	1	–
577008	1 1/2"	0,47	1	–
577009	2"	0,53	1	–
577020	2 1/2"	0,53	1	–
577030	3"	0,53	1	–

579

Y strainer for heating systems.
Grey cast iron body.
Max. working pressure: 16 bar.
Temperature range: -10–100°C.
Max. percentage of glycol: 50%.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-2.
Filtering mesh in stainless steel AISI 304.

Code		Mesh size Ø (mm)		
579051	DN 50	0,87	1	–
579061	DN 65	0,87	1	–
579081	DN 80	1,55	1	–
579101	DN 100	1,55	1	–
579121	DN 125	1,55	1	–
579151	DN 150	1,55 *	1	–
579201	DN 200	1,55 *	1	–
579251	DN 250	1,55 *	1	–

** Rhomboidal reinforcing mesh*

HYDRAULIC SEPARATORS

548

tech. broch. 01076

Hydraulic separator.
Epoxy resin coated steel body.
With pre-formed insulation.
Female union connections.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.
Complete with:
air vent with automatic shut-off cock,
drain cock.

Code		Max. recommended flow rate m³/h		
548006	1″	2,5	1	–
548007	1 1/4″	4	1	–
548008	1 1/2″	6	1	–
548009	2″	8,5	1	–

Choice of hydraulic separator 548 series
The hydraulic separator should be sized according to the **maximum flow rate value at the inlet**. The selected design value must be the greatest between the primary circuit and the secondary circuit.

548

tech. broch. 01076

Hydraulic separator.
Epoxy resin coated steel body.
With pre-formed insulation.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125 - DN 150).
Temperature probe connection: 1/2″ F.
Complete with:
automatic air vent, shut-off valve,
drain valve.

Code			Max. recommended flow rate m³/h		
548052	DN	50	9	1	–
548062	DN	65	18	1	–
548082	DN	80	28	1	–
548102	DN	100	56	1	–
548122	DN	125	75	1	–
548152	DN	150	110	1	–

548

tech. broch. 01076

Hydraulic separator.
Epoxy resin coated steel body.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Temperature probe connection: 1/2″ F.
Complete with:
automatic air vent, shut-off valve,
drain valve.

Code			Max. recommended flow rate m³/h		
548050	DN	50	9	1	–
548060	DN	65	18	1	–
548080	DN	80	28	1	–
548100	DN	100	56	1	–
548120	DN	125	75	1	–
548150	DN	150	110	1	–

548

tech. broch. 01076

Hydraulic separator.
Epoxy resin coated steel body.
Flanged connections PN 10.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Temperature probe connection: 1/2″ F.
Complete with:
automatic air vent, shut-off valve,
drain valve.

Code			Max. recommended flow rate m³/h		
548200	DN	200	180	1	–
548250	DN	250	300	1	–
548300	DN	300	420	1	–

MULTIFUNCTION HYDRAULIC SEPARATOR

5495
SEP4

tech. broch. 01249

Multifunction hydraulic separator.
Epoxy resin coated steel body.
With pre-formed insulation.
Female union connections.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.
Complete with:
- hydraulic separator,
- automatic air vent,
- dirt separator,
- magnetic ring,
- drain cock with hose connection.

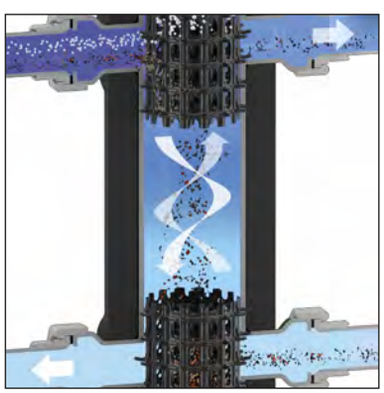
Code		Max. recommended flow rate m³/h		
549506	1″	2,5	1	–
549507	1 1/4″	4	1	–
549508	1 1/2″	6	1	–
549509	2″	8,5	1	–

Function

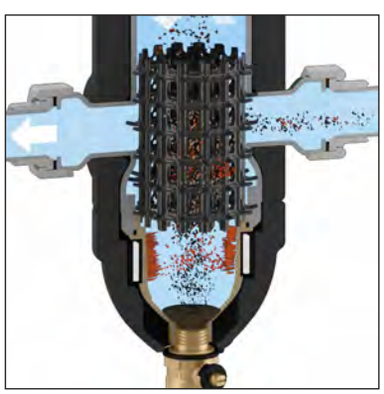
The multifunction hydraulic separator combines different functional components, each of them to satisfy specific needs of air conditioning system circuits.
It is supplied complete with hot pre-formed shell insulation to ensure perfect thermal insulation when used with both hot and chilled water.
The device is designed to carry out the following functions:

- **Hydraulic separation**
  To keep connected hydraulic circuits totally independent from each other.
- **Deaeration**
  Utilises the combined action of several physics principles: the widening of the cross section decreases the flow velocity and the technopolymer mesh creates whirling movements so as to facilitate the release of micro-bubbles. The bubbles, fusing with each other, increase in volume and, rising towards the top of the unit, are released through a float-operated automatic air vent.
- **Dirt separation**
  The dirt separator separates and collects any impurities in the circuits as they collide with the surface of the internal element.
- **Removal of magnetic particles**
  The special patented magnetic system also attracts ferromagnetic impurities in the water: the ferromagnetic particles are trapped in the collection zone, meaning they are prevented from being recirculated.

Hydraulic separation

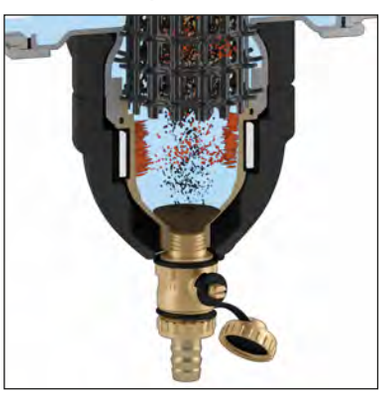


Dirt removal



Deaeration

Removal of magnetic particles



HYDRAULIC SEPARATORS-MANIFOLDS

559 SEPCOLL 2+2.

tech. broch. 01084

Hydraulic separator-manifold
for heating systems. Steel body, PN 6.
With pre-formed insulation.
1 1/4" F main connections.
1 1/2" outlet connections with captive nut:
two at the top and two at the bottom.
Temperature range: 0–110°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559222	125 mm	1	–

559 SEPCOLL 3+1.

tech. broch. 01084

Hydraulic separator-manifold for
heating systems. Steel body, PN 6.
With pre-formed insulation.
1 1/4" F main connections.
1 1/2" outlet connections with captive nut:
three at the top and one at the bottom (can be inverted).
Temperature range: 0–110°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559231	125 mm	1	–

559 SEPCOLL 2+1.

tech. broch. 01084

Hydraulic separator-manifold for
heating systems. Steel body, PN 6.
With pre-formed insulation.
1" F main connections.
Outlet connections: two 1 1/2" at the top
with captive nut and one 1" F at the side.
Temperature range: 0–110°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559221	125 mm	1	–

559 SEPCOLL 2.

tech. broch. 01084

Hydraulic separator-manifold for
heating systems. Steel body, PN 6.
With pre-formed insulation.
1" F main connections.
Outlet connections: two 1 1/2" at the top
with captive nut.
Temperature range: 0–110°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559220	125 mm	1	–

559

Pair of plugs with gaskets for unused outlets.
For 559 and 550 series.

Code			
559001		1	–

559 SEPCOLL 2.

tech. broch. 01084

Hydraulic separator-manifold for
heating and air conditiong systems.
Steel body, PN 6.
With pre-formed insulation.
1 1/4" F main connections.
Outlet connections: two 1 1/2" at the top
with captive nut.
Temperature range: 0–100°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559320	125 mm	1	–

559 SEPCOLL 3+1.

tech. broch. 01084

Hydraulic separator-manifold for
heating and air conditiong systems.
Steel body, PN 6.
With pre-formed insulation.
1 1/4" F main connections.
1 1/2" outlet connections with captive nut:
three at the top and one at the bottom (can be inverted).
Temperature range: 0–100°C.
Complete with mounting brackets.

Code	Outlet centre distance		
559331	125 mm	1	–

Insulation

SEPCOLL versions with codes 559320 and 559331 are supplied complete with hot pre-formed shell insulation.
This system ensures not only perfect thermal insulation, but also the tightness required to prevent water vapour entering the device from the ambient. For this reason, this type of insulation may also be used in chilled water circuits as it prevents condensation from forming on the surface of the body of the device.

MANIFOLDS FOR CENTRAL HEATING SYSTEM

550 2

tech. broch. 01261

Manifold for heating and air conditioning systems.
Steel body.
1 1/4″ M main connections.
Outlet connections: 1 1/2″ F with captive nut.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code	Outlet centre distance		
550020	125 mm	1	–

550 2+1

tech. broch. 01261

Manifold for heating and air conditioning systems.
Steel body.
1 1/4″ M main connections.
Outlet connections: 1 1/2″ F with captive nut.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code	Outlet centre distance		
550021	125 mm	1	–

550 3

tech. broch. 01261

Manifold for heating and air conditioning systems.
Steel body.
1 1/2″ M main connections.
Outlet connections: 1 1/2″ F with captive nut.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code	Outlet centre distance		
550030	125 mm	1	–

550 3+1

tech. broch. 01261

Manifold for heating and air conditioning systems.
Steel body.
1 1/2″ M main connections.
Outlet connections: 1 1/2″ F with captive nut.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code	Outlet centre distance		
550031	125 mm	1	–

550 4

tech. broch. 01261

Manifold for heating and air conditioning systems.
Steel body.
1 1/2″ M main connections.
Outlet connections: 1 1/2″ F with captive nut.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.

Code	Outlet centre distance		
550040	125 mm	1	–

Insulation for manifolds
for central heating system 550 series.
For heating and air conditioning systems.

Code			
CBN550020	for manifold 2	1	–
CBN550021	for manifold 2+1	1	–
CBN550030	for manifold 3	1	–
CBN550031	for manifold 3+1	1	–
CBN550040	for manifold 4	1	–

NEW

559

Pair of fitting with gaskets.
For 550 and 559 series.

Code			
559002	1 1/2″ M x 1″ M	1	–

NEW

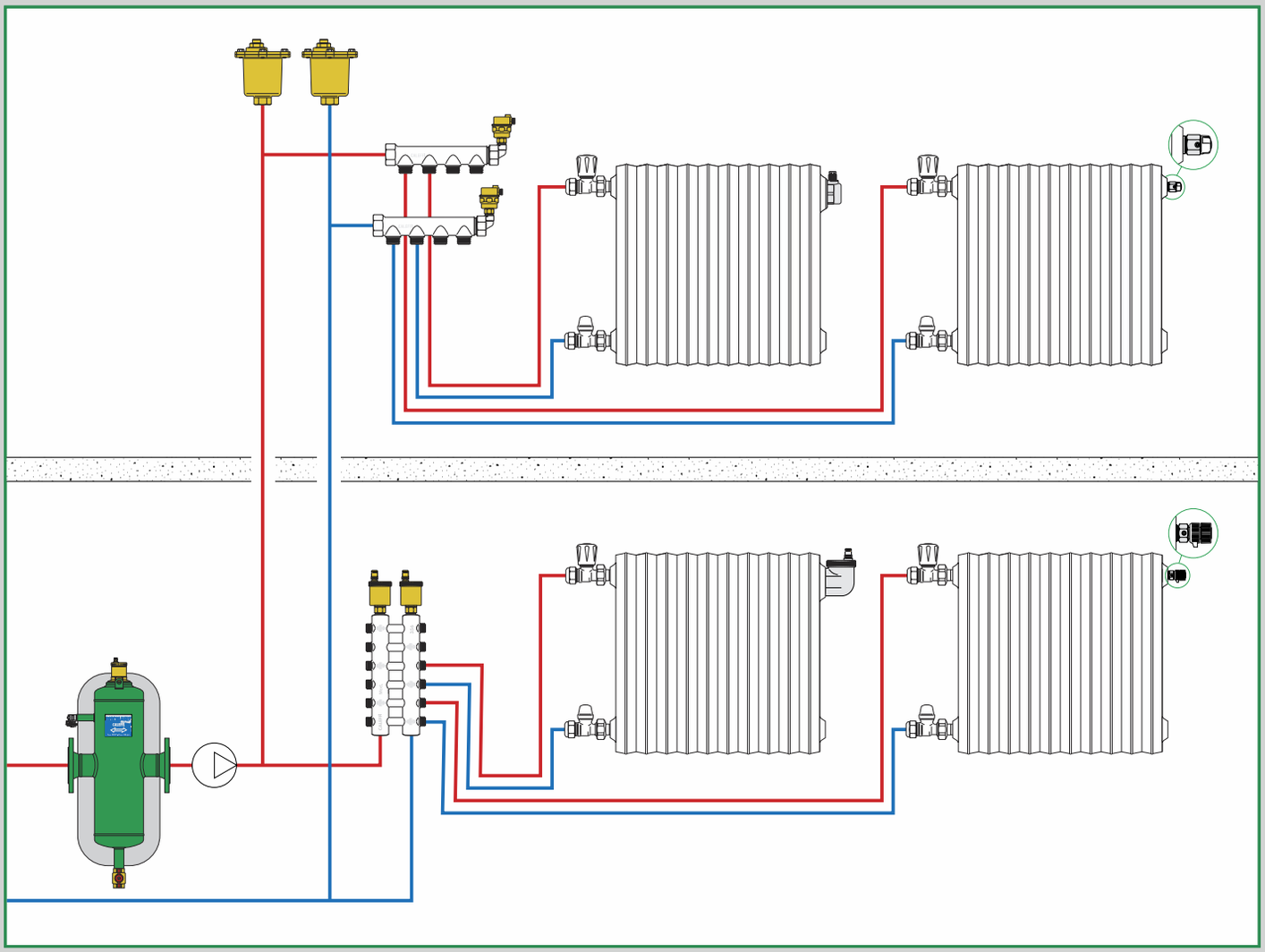
550

Kit for 550 series manifold pipe connection to 548 series hydraulic separator.

Code			
550001	1 1/4″ x 1 1/4″	1	–
550002	1 1/2″ x 1 1/4″	1	–
550003	1 1/2″ x 1 1/2″	1	–
550004	2″ x 1 1/2″	1	–

AIR AND DIRT SEPARATION DEVICES

The diagram is just an indication



Automatic air vents
End plug for radiators with automatic air vent, AERCAL
Manual air vents
Drain cocks
Deaerators, DISCAL®
Deaerators-dirt separators, DISCALDIRT®
Dirt separators, DIRTCAL®
Dirt separators with magnet, DIRTMAG®
Composite under-boiler dirt separators with magnet, DIRTMAGSLIM®
Composite dirt separators with magnet, DIRTMAG®
Multifunction device with dirt separator and strainer, DIRTMAGPLUS®

501 MAXCAL

tech. broch. 01031

Automatic air vent for heating, air conditioning and refrigeration.
High discharge capacity.
Brass body and cover, stainless steel internal components.
Max. working pressure: 16 bar.
Max. discharge pressure: 6 bar.
Temperature range: -20–120°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
501500	3/4″ F x 3/8″ F	1	5

551 DISCALAIR®

tech. broch. 01124

High performance automatic air vent.
Brass body.
Female connection.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

Code			
551004	1/2″	1	10

5020 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 120°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502030	3/8″ M	10	50
502040	1/2″ M	10	50

5020 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
With hygroscopic safety cap.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 120°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502050	3/4″ M	2	50
502060	1″ M	2	50

5020 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Chrome plated.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 120°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502031	3/8″ M	10	50
502041	1/2″ M	10	50

5020 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Chrome plated.
With hygroscopic safety cap.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 120°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502051	3/4″ M	2	50
502061	1″ M	2	50

5021 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
With automatic shut-off cock.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 110°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502130	3/8″ M	10	100
502140	1/2″ M	10	100

5021 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Chrome plated.
With automatic shut-off cock.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 110°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502131	3/8″ M	10	100
502141	1/2″ M	10	100

5021 MINICAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Chrome plated.
With automatic shut-off cock and hygroscopic safety cap.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 110°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502132	3/8" M	10	100
502142	1/2" M	10	100

5022 VALCAL

tech. broch. 01054

Automatic air vent.
In hot-stamped brass.
Chrome plated.
Max. working pressure: 10 bar.
Max. discharge pressure: 4 bar.
Max. working temperature: 120°C.

Code			
502221	1/4" M	1	25
502231	3/8" M	1	25
502241	1/2" M	1	25

561

tech. broch. 01054

Automatic shut-off cock.
For automatic air vents 502**.** series.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code				
561230	1/4" x 3/8" M		50	500
561300	3/8" x 3/8" M		10	–
561340	3/8" x 1/2" M		10	–
561400	1/2" x 1/2" M	without PTFE seal on thread	10	–

561

tech. broch. 01054

Automatic shut-off cock.
For automatic air vents 5020 and 5022 series.
Chrome plated.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code				
561301	3/8" x 3/8" M		10	–
561401	1/2" x 1/2" M	without PTFE seal on thread	10	–

5024 ROBOCAL

tech. broch. 01033

Automatic air vent.
In hot-stamped brass.
Max. working pressure: 10 bar.
Max. discharge pressure: 4 bar.
Max. working temperature: 115°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502420	1/4" M	112	–
502430	3/8" M	1	50

5025 ROBOCAL

tech. broch. 01033

Automatic air vent.
In hot-stamped brass.
With automatic shut-off cock.
Max. working pressure: 10 bar.
Max. discharge pressure: 4 bar.
Max. working temperature: 110°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502533	3/8" M	10	100
502543	1/2" M	10	100

5026 ROBOCAL

tech. broch. 01033

Automatic air vent.
In hot-stamped brass.
Max. working pressure: 10 bar.
Max. discharge pressure: 6 bar.
Max. working temperature: 115°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502630	3/8" M	10	50
502640	1/2" M	10	100

5027 ROBOCAL

tech. broch. 01033

Automatic air vent.
In hot-stamped brass.
With automatic shut-off cock.
Max. working pressure: 10 bar.
Max. discharge pressure: 6 bar.
Max. working temperature: 110°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
502730	3/8" M	10	100

507 AERCAL

tech. broch. 01032

End plug for radiators
with automatic air vent.
In hot-stamped brass.
Chrome plated.
With hygroscopic safety cap.
With rubber seal.
Max. working pressure: 10 bar.
Max. discharge pressure: 6 bar.
Max. working temperature: 100°C.

Code			
507611	1″ M right	1	25
507621	1″ M left	1	25
507711	1 1/4″ M right	1	25
507721	1 1/4″ M left	1	25

504 AERCAL

tech. broch. 01055

Automatic air vent for radiators.
In hot-stamped brass.
Chrome plated.
With hygroscopic safety cap.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 100°C.

Code			
504401	1/2″ M	1	25
504501	3/4″ M	1	25
504611	1″ M right	1	25
504621	1″ M left	1	25

R59720 AQUASTOP

tech. broch. 01032

Hygroscopic safety cap.
For end plugs 507 series.
Chrome plated.

Code		
R59720	1	–

R59681 AQUASTOP

tech. broch. 01054

Hygroscopic safety cap.
For automatic air vents 5020 and
5021 series.

Code		
R59681	1	–

5620 AQUASTOP

tech. broch. 01054

Hygroscopic safety cap.
For automatic air vents
5020, 5021, 5022 and 504 series.
Chrome plated.

Code		
562000	50	–

5621

tech. broch. 01054

Anti-vacuum cap.
For automatic air vents
5020, 5021 and 5022 series.

Code		
562100	100	–

5622

tech. broch. 01033

Anti-vacuum cap.
For automatic air vents
5024, 5025, 5026 and 5027 series.

Code		
562200	100	–

505

tech. broch. 01056

Manual air vent for radiators.
Chrome plated.
White POM (acetal resin) knob.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
505111	1/8" M	50	–
505121	1/4" M	50	500
505131	3/8" M	50	500

5055

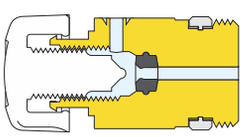
tech. broch. 01056

Manual air vent for radiators.
Rubber seal.
Chrome plated.
White POM (acetal resin) knob.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
505511	1/8" M	10	100
505521	1/4" M	10	100
505531	3/8" M	10	100
505541	1/2" M	10	50

Manual air vent for radiators 5055 series

The identifying detail of this valve is an internal seal in a special elastic material which provides a tight seal in relation to limited tightening of the knob and possible temperature changes.



The knob of the valve is shaped so as to be similar in appearance to Caleffi thermostatic valve heads, which enhances the uniformity of the radiator component range.

For all the radiator air vents, the knob should be tightened with the system still cold.

5054

tech. broch. 01056

Manual air vent for radiators.
Chrome plated.
White POM (acetal resin) knob.
Adjustable outlet.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
505411	1/8" M	50	–
505421	1/4" M	50	–
505431	3/8" M	50	–
505441	1/2" M	50	–

5080

tech. broch. 01056

Automatic hygroscopic air vent for radiators. Chrome plated.
White POM (acetal resin) knob.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code			
508011	1/8" M	25	–
508021	1/4" M	25	–
508031	3/8" M	25	–
508041	1/2" M	25	–

5081

tech. broch. 01056

Spare hygroscopic cartridge for 5080 series.

Code			
508100	12 p.1,5	25	–

337

Drain cock.
Adjustable outlet.
PTFE seal on thread.
Max. working pressure: 6 bar.
Max. working temperature: 85°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

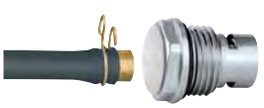
Code			
337121	1/4"	50	200
337131	3/8"	50	200

337

Drain cock with metal seal.
Adjustable outlet.
PTFE seal on thread.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code			
337221	1/4"	80	400
337231	3/8"	50	250



560

tech. broch. 01056

Drain cock for radiators and wall-mounted boilers.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code			
560421 ◆	1/2"	10	–
560000	extractor drain hose	25	–

◆ *One extractor drain hose code 560000 is included in each 10-item package*

DEAERATORS

551 DISCALAIR®

tech. broch. 01124

High performance automatic air vent.
Brass body. **Female connection**.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

Code			
551004	1/2″	1	10

551 DISCAL®

tech. broch. 01060

Deaerator for vertical pipes.
Brass body. **Female connections** and **Ø 22 mm with compression ends**.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

Code			
551905	3/4″	1	5
551906	1″	1	5
551902	Ø 22	1	5

551 DISCAL®

tech. broch. 01060

Deaerator.
Brass body. **Female connections** and **Ø 22 mm with compression ends**.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

Code			
551003	3/4″	1	10
551002	Ø 22	1	10

551 DISCAL®

NEW

Deaerator.
Brass body.
Female connections and **Ø 22 and Ø 28 mm with compression ends**.
Adjustable for horizontal and vertical pipes.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

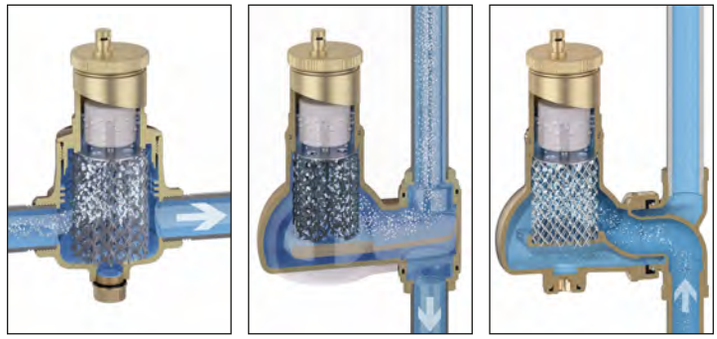
Code			
551705	3/4″	1	–
551706	1″	1	–
551702	Ø 22	1	–
551703	Ø 28	1	–

Operating principle

The deaerator uses the combined action of several physical principles. The active part consists of an assembly of concentric metal mesh surfaces. These elements create the whirling movement required to facilitate the release of micro-bubbles and their adhesion to these surfaces. The bubbles, fusing with each other, increase in volume until the hydrostatic thrust is such as to overcome the adhesion force to the structure. They rise towards the top of the unit from which they are released through a float-operated automatic air release valve. It is designed in such a way that the direction in which the medium is flowing inside it makes no difference.

Air separation efficiency

The amount of air which may be removed from a circuit depends on various parameters: it increases as the circulation speed and pressure values fall.
After just 25 recirculations at the maximum recommended speed, almost all the air artificially introduced into the circuit is eliminated by the deaerator, with variable percentages according to the pressure within the circuit.
The small amount which remains is then gradually eliminated during normal system operation. In conditions where the speed is slower or the temperature of the medium is higher, the amount of air separated is even greater.



DEAERATORS

551 DISCAL®

tech. broch. 01060

Deaerator.
Brass body.
Female connections.
With drain.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.

Code			
551005	3/4″	1	–
551006	1″	1	–
551007	1 1/4″	1	–
551008	1 1/2″	1	–
551009	2″	1	–

Insulation
for deaerators 551 series.

Code	Use		
CBN551005	551005-551006	1	–
CBN551007	551007-551008	1	–
CBN551009	551009	1	–

551 DISCAL®

tech. broch. 01060

Deaerator.
Epoxy resin coated steel body.
Weld ends.
With insulation.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125-DN 150),
0–110°C (without insulation).

Code					
551053	DN	50		1	–
551063	DN	65		1	–
551083	DN	80		1	–
551103	DN	100		1	–
551123	DN	125		1	–
551153	DN	150		1	–
551051	DN	50	without insulation	1	–
551061	DN	65	without insulation	1	–
551081	DN	80	without insulation	1	–
551101	DN	100	without insulation	1	–
551121	DN	125	without insulation	1	–
551151	DN	150	without insulation	1	–

551 DISCAL®

tech. broch. 01060

Deaerator.
Epoxy resin coated steel body.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
With insulation.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125-DN 150),
0–110°C (without insulation).

Code					
551052	DN	50		1	–
551062	DN	65		1	–
551082	DN	80		1	–
551102	DN	100		1	–
551122	DN	125		1	–
551152	DN	150		1	–
551050	DN	50	without insulation	1	–
551060	DN	65	without insulation	1	–
551080	DN	80	without insulation	1	–
551100	DN	100	without insulation	1	–
551120	DN	125	without insulation	1	–
551150	DN	150	without insulation	1	–

551 DISCAL®

tech. broch. 01060

Deaerator.
Epoxy resin coated steel body.
Flanged connections PN 10.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range:
0–110°C.
Temperature probe connection: 1/2″ F.

Code				
551200	DN	200	1	–
551250	DN	250	1	–
551300	DN	300	1	–

DEAERATORS-DIRT SEPARATORS

546 DISCAL*DIRT*®

tech. broch. 01123

Deaerator-dirt separator.
Brass body.
Female connections and
Ø 22 mm with compression ends.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 μm.

Code			
546005	3/4″	1	–
546006	1″	1	–
546007	1 1/4″	1	–
546002	Ø 22	1	–

Insulation
for deaerators-dirt separators 546 series.

Code	Use		
CBN546002	546002-546005-546006	1	–
CBN546007	546007	1	–

5461 DISCAL*DIRTMAG*

tech. broch. 01123

Deaerator-dirt separator **with magnet**.
Brass body.
Female connections.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 μm.

Code			
546105	3/4″	1	–
546106	1″	1	–
546107	1 1/4″	1	–

NEW

5461 DISCAL*DIRTMAG*

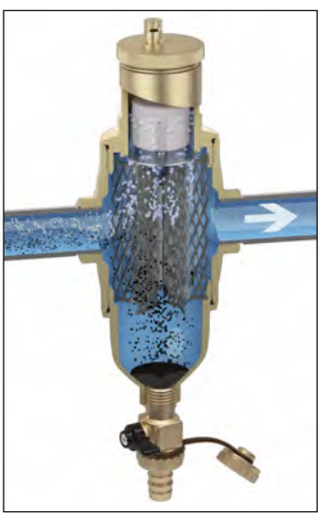
tech. broch. 01123

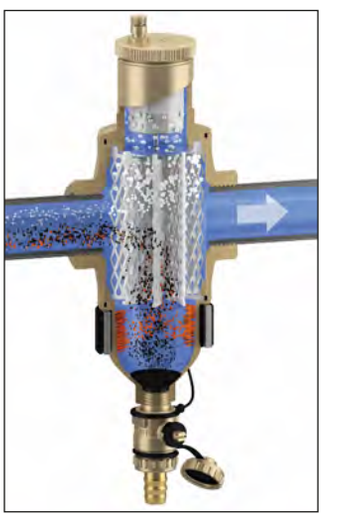
Deaerator-dirt separator **with magnet**.
Brass body.
Female connections.
With insulation.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 μm.

Code			
546118	1 1/2″	1	–
546119	2″	1	–

Operating principle

The deaerator-dirt separator uses the combined action of several physical principles. The active part consists of an assembly of concentric metal mesh surfaces. These elements create the whirling movement required to facilitate the release of micro-bubbles and their adhesion to these surfaces.
The bubbles, fusing with each other, increase in volume until the hydrostatic thrust is such as to overcome the adhesion force to the structure. They rise towards the top of the unit from which they are released through a float-operated automatic air release valve.
The impurities in the water, colliding with the metal surfaces of the internal element, are separated out and fall to the bottom of the valve body.





DEAERATORS-DIRT SEPARATORS

546 DISCALDIRT®

tech. broch. 01123

Deaerator-dirt separator.
Epoxy resin coated steel body.
Weld ends.
With insulation.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125-DN 150),
0–110°C (without insulation).
Particle separation rating
down to 5 μm.

Code					
546053	DN	50		1	–
546063	DN	65		1	–
546083	DN	80		1	–
546103	DN	100		1	–
546123	DN	125		1	–
546153	DN	150		1	–
546051	DN	50	without insulation	1	–
546061	DN	65	without insulation	1	–
546081	DN	80	without insulation	1	–
546101	DN	100	without insulation	1	–
546121	DN	125	without insulation	1	–
546151	DN	150	without insulation	1	–

546 DISCALDIRT®

tech. broch. 01123

Deaerator-dirt separator.
Epoxy resin coated steel body.
Flanged connections PN 16.
To be coupled with flat
counterflanges EN 1092-1.
With insulation.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125-DN 150),
0–110°C (without insulation).
Particle separation rating
down to 5 μm.

Code					
546052	DN	50		1	–
546062	DN	65		1	–
546082	DN	80		1	–
546102	DN	100		1	–
546122	DN	125		1	–
546152	DN	150		1	–
546050	DN	50	without insulation	1	–
546060	DN	65	without insulation	1	–
546080	DN	80	without insulation	1	–
546100	DN	100	without insulation	1	–
546120	DN	125	without insulation	1	–
546150	DN	150	without insulation	1	–

546 DISCALDIRT®

tech. broch. 01123

Deaerator-dirt separator.
Epoxy resin coated steel body.
Flanged connections PN 10.
To be coupled with flat
counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: 0–110°C.
Temperature probe connection: 1/2" F.
Particle separation rating
down to 5 μm.

Code				
546200	DN	200	1	–
546250	DN	250	1	–
546300	DN	300	1	–

DIRT SEPARATORS

5462

tech. broch. 01137

DIRTCAL®

Dirt separator.
Brass body.
Female connections.
Drain cock with hose connection.
Top connection with plug.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 μm.

Code			
546205	3/4″	1	6
546206	1″	1	6
546207	1 1/4″	1	6
546208	1 1/2″	1	6
546209	2″	1	6

Insulation
for dirt separators 5462 series.

Code	Use		
CBN546205	546205-546206	1	–
CBN546207	546207-546208	1	–
CBN546209	546209	1	–

5469

tech. broch. 01137

DIRTCAL®

Dirt separator for vertical pipes.
Brass body.
Ø 22 mm with compression ends.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.

Code			
546902	Ø 22	1	5

5469

tech. broch. 01137

DIRTCAL®

Dirt separator for vertical pipes.
Brass body.
Female connections.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.

Code			
546905	3/4″	1	5
546906	1″	1	5

Operating principle

The separating action performed by the dirt separator is based on using the internal element with reticular surfaces in place of the ordinary filter. The screen, by its nature, offers little resistance to the flow of medium while ensuring separation.
This occurs due to the particles colliding with the reticular surfaces and then settling, and not by filtration; an action by which the filter, over time, gets progressively clogged by the sludge it removes.

Particle separation rating - Dirt separator efficiency

The Caleffi DIRTCAL® dirt separator, thanks to the special design of its internal element, is able to completely separate the impurities in the circuit down to a minimum particle size of 5 μm.
Following tests carried out at a specialized laboratory (TNO - Science and Industry - NL) it was found that the DIRTCAL® dirt separator (5462 and 5465 series) is able to quickly separate nearly all the impurities after only 50 recirculations, approximately one day of operation.
They are effectively removed from the circuit for particles of diameter greater than 100 μm and on average up to 80% taking account of the smallest particles.
The continual passing of the medium during normal operation of the system gradually leads to complete dirt removal.

DIRT SEPARATORS

5465
tech. broch. 01137

DIRTCAL®

Dirt separator.
Epoxy resin coated steel body.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
With insulation.
Max. working pressure: 10 bar.
Temperature range:
0–105°C (DN 50–DN 100),
0–100°C (DN 125-DN 150).
Particle separation rating down to 5 µm.

Code			
546550	DN 50	1	–
546560	DN 65	1	–
546580	DN 80	1	–
546510	DN 100	1	–
546512	DN 125	1	–
546515	DN 150	1	–

5465
tech. broch. 01137

DIRTCAL®

Dirt separator.
Epoxy resin coated steel body.
Flanged connections PN 10.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Temperature probe connection: 1/2" F.
Particle separation rating down to 5 µm.

Code			
546520	DN 200	1	–
546525	DN 250	1	–
546530	DN 300	1	–

DIRT SEPARATORS WITH MAGNET

5463 DIRTMAG®

tech. broch. 01137

Dirt separator **with magnet**.
Brass body.
Female connections.
Drain cock with hose connection.
Top connection with plug.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 µm.

PCT INTERNATIONAL APPLICATION PENDING

Code			
546305	3/4″	1	6
546306	1″	1	6
546307	1 1/4″	1	5
546308	1 1/2″	1	5
546309	2″	1	5

5468 DIRTMAG®

tech. broch. 01137

Dirt separator **with magnet**
for vertical pipes.
Brass body.
Female connections.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
546805	3/4″	1	5
546806	1″	1	5

5463 DIRTMAG®

tech. broch. 01137

Dirt separator **with magnet**.
Brass body.
Female connections.
Drain cock with hose connection.
Top connection with plug.
With insulation.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Particle separation rating down to 5 µm.

PCT INTERNATIONAL APPLICATION PENDING

Code			
546315	3/4″	1	–
546316	1″	1	8
546317	1 1/4″	1	–
546318	1 1/2″	1	–
546319	2″	1	–

5468 DIRTMAG®

tech. broch. 01137

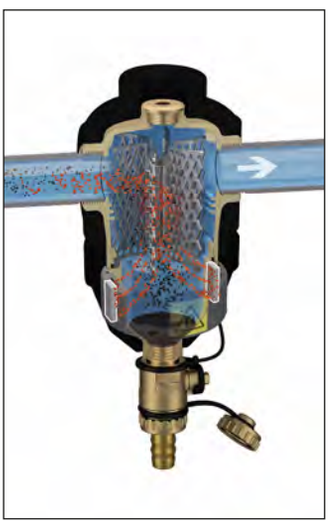
Dirt separator **with magnet**
for vertical pipes.
Brass body.
Ø 22 and Ø 28 mm with compression ends.
Drain cock with hose connection.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
546802	Ø 22	1	5
546803	Ø 28	1	5

Operating principle

The magnetic dirt separator, in addition to the traditional dirt separation function, is equipped with a patented device to collect ferrous impurities contained within the system water.
A specific ring, featuring two slots for housing the magnets, is placed outside the body in the part for collecting the impurities.
The ferrous particles are trapped in this way in the collection zone, thus avoiding they return in circulation. By removing the ring and opening the drain cock, impurities and sludge are eliminated from the system.



DIRT SEPARATORS WITH MAGNET

5466 DIRTMAG®

tech. broch. 01137

Dirt separator **with magnet**.
Epoxy resin coated steel body.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
With insulation.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.
Temperature probe connection: 1/2" F.
Particle separation rating down to 5 μm.

Code			
546650	DN 50	1	–
546660	DN 65	1	–
546680	DN 80	1	–
546610	DN 100	1	–
546612	DN 125	1	–
546615	DN 150	1	–

5466 DIRTMAG®

tech. broch. 01137

Dirt separator **with magnet**.
Epoxy resin coated steel body.
Flanged connections PN 10.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.
Temperature probe connection: 1/2" F.
Particle separation rating down to 5 μm.

Code			
546620	DN 200	1	–
546625	DN 250	1	–
546630	DN 300	1	–

Operating principle

The magnetic dirt separator, in addition to the traditional dirt separation function, is equipped with a patented device to collect ferrous impurities contained within the system water.
A magnetic probe is positioned inside the body to collect all the ferrous impurities and magnetite circulating within the system.
The ferrous particles are trapped in this way in the collection zone, thus avoiding they return in circulation.

COMPOSITE UNDER-BOILER DIRT SEPARATORS WITH MAGNET

NEW

5451 DIRTMAGSLIM®

tech. broch. 01327

Dirt separator **with magnet**
for under-boiler installation.
Technopolymer body.
Drain cock with hose connection (in package).
Fitting for wall connection: 3/4″ M.
Fitting for connection pipe: 3/4″ F.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545105	3/4″ M x 3/4″ F	1	6

5451 DIRTMAGSLIM®

tech. broch. 01327

Dirt separator **with magnet**
for under-boiler installation.
Technopolymer body.
Drain cock with hose connection (in package).
Fitting for wall connection: 3/4″ M.
Fitting for copper pipe Ø 18 mm and Ø 22 mm.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545101	3/4″ M - Ø 18	1	6
545102	3/4″ M - Ø 22	1	6

Accessory kit for composite dirt separator 5451 series.

Code			
F0000117	"S" shaped off-centre connection kit	1	–

5452 DIRTMAGSLIM®

tech. broch. 01327

Dirt separator **with magnet**
for under-boiler installation.
Suitable for non-linear installations,
with crossed pipes.
Technopolymer body.
Drain cock with hose connection (in package).
Fitting for wall connection: 3/4″ M.
Fitting for connection with flexible pipe: 3/4″ F.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545205	3/4″ M x 3/4″ F	1	6

Accessory for composite dirt separator 5451 series.

Code			
F0000439	elbow fitting 3/4″ F	1	–

Accessory for composite dirt separator 5451 and 5452 series.

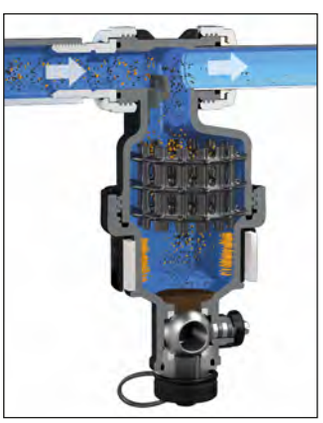
Code			
F0000401	fitting 3/4″ F	1	–

Protective cover.

Code			
545100		1	–

Operating principle

The **DIRTMAG**SLIM® magnetic dirt separator removes and collects impurities present in the circuit thanks to an internal deflector located in the medium flow. This device creates turbulence in the medium that helps to transfer impurities to the decanting chamber where, thanks to the low medium velocity, the particles are captured and unable to return to the circuit.
This operating principle makes it possible to keep the head loss inside the device to the minimum.
Separation efficacy is enhanced by the presence of an external magnetic collar.



Installation of code 54510.

Installation of code 545105

Installation of code 545205

DIRT SEPARATORS IN COMPOSITE WITH MAGNET

5453 DIRTMAG®

tech. broch. 01240

Dirt separator **with magnet**.
Technopolymer body.
Female connections.
Adjustable for horizontal and vertical pipes.
Drain cock with hose connection.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545305	3/4″	1	5
545306	1″	1	5

5453 DIRTMAG®

tech. broch. 01240

Dirt separator **with magnet**.
Technopolymer body.
Ø 22 and Ø 28 mm with compression ends.
Adjustable for horizontal and vertical pipes.
Drain cock with hose connection.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545302	Ø 22	1	5
545303	Ø 28	1	5

NEW

Insulation
for dirt separators 5453 series.

Code		
CBN545305	1	–

5453 DIRTMAG®

tech. broch. 01240

Dirt separator with ball valves **and magnet**.
Technopolymer body.
Female connections.
Adjustable for horizontal, vertical or 45° pipes.
Drain cock with hose connection.
Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545345	3/4″	1	5
545346	1″	1	5
545347	1 1/4″	1	5

NEW

Insulation
for dirt separators with ball valves 5453 series.

Code		
CBN545345	1	–

Operating principle

The polymer dirt separator with magnet, in addition to the traditional function of dirt separation, is equipped with a patented system for collecting ferrous impurities contained in the circuit water.
The impurities in the water, on striking the internal reticular surfaces, get separated, dropping into the bottom of the body where they are collected.
The impurities are captured inside the dirt separator body by the action of two magnets inserted in the special outer removable ring.
The large internal volume of the DIRTMAG® slows down the flow speed of the medium thus helping, by gravity, to separate the contained particles.

Separation of ferrous impurities

This series of dirt separators, fitted with a magnet, offer greater efficiency in the separation and collection of ferrous impurities.
The impurities are trapped inside the dirt separator body by the strong magnetic field created by the magnets inserted in the special outer ring.
The outer ring can also be removed from the body to allow their decantation and subsequent expulsion while the system is still running.
Since the magnetic ring is positioned outside the dirt separator body, the hydraulic characteristics of the device are not altered.

MULTIFUNCTION DEVICE IN COMPOSITE WITH DIRT SEPARATOR AND STRAINER

5453

tech. broch. 01258

DIRTMAGPLUS®

Multifunction device
with dirt separator and strainer.
Specific for the complete cleaning of the hydraulic circuit, to protect continuously generator and components.
Technopolymer body.
Dirt separator with tecnopolimer internal element, **with magnet**.
Two inspectable strainers with stainless steel mesh:
1 for initial cleaning (blue colour) already installed,
1 for maintenance (grey colour) in package.
Shut-off valve with nut, brass body.
Female connections.
Adjustable for horizontal, vertical or 45° pipes.
Drain cock with hose connection.

PCT INTERNATIONAL APPLICATION PENDING

Max. working pressure: 3 bar.
Temperature range: 0–90°C.

Code			
545375	3/4"	1	5
545376	1"	1	5

5453

tech. broch. 01258

DIRTMAGPLUS®

Multifunction device
with dirt separator and strainer.
Specific for the complete cleaning of the hydraulic circuit, to protect continuously generator and components.
Technopolymer body.
Dirt separator with tecnopolimer internal element, **with magnet**.
Two inspectable strainers with stainless steel mesh:
1 for initial cleaning (blue colour) already installed,
1 for maintenance (grey colour) in package.
Shut-off valve with nut, brass body.
Ø 22 and Ø 28 mm with compression ends.
Adjustable for horizontal, vertical or 45° pipes.
Drain cock with hose connection.

PCT INTERNATIONAL APPLICATION PENDING

Max. working pressure: 3 bar.
Temperature range: 0–90°C.

Code			
545372	Ø 22	1	5
545373	Ø 28	1	5

Dirt collector

First cleaning strainer
Mesh size Ø = 0,30 mm

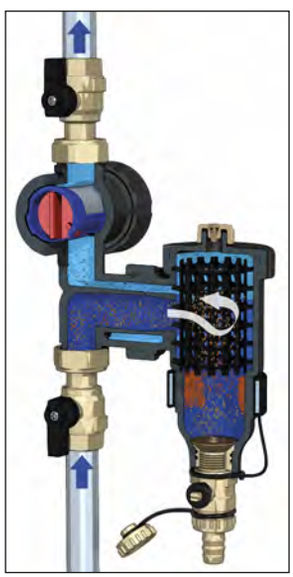
Maintenance strainer
Mesh size Ø = 0,80 mm

Accessory kit for circuit filling and flushing and strainer accessories for device DIRTMAGPLUS® 5453 series.

Code			
F49476	accessory kit	1	10
F49474/BL	first cleaning strainer (blue colour)	1	10
F49474/GR	maintenance strainer (grey colour)	1	10

Operating principle

The multifunction device is obtained by coupling a dirt separator and a cartridge strainer arranged in series. The water circulating in the system flows, in sequence, first through the dirt separator and then through the cartridge strainer. The dirt separator separates the impurities contained in the water by means of the action of the internal element.
Ferrous impurities are also trapped inside the body of the device thanks to the action of the two magnets inserted in a special removable outer ring.
The first passage through the dirt separator makes it possible to separate a high percentage of the impurities in the circulating water, down to minimal particle sizes.
The cartridge strainer separates impurities by means of mechanical selection of the particles in accordance with their size, by means of a special metal mesh.
All the particles with diameter bigger than the mesh size are automatically stopped and separated, **with maximum separation efficiency at the first passage**.



Additives dosing

The multifunction device can also be used as an access point to inject into the circuit chemical additives designed to protect the system.

Circuit cleaning and maintenance

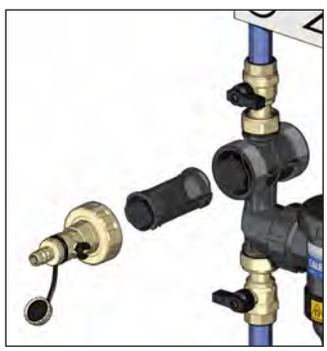
The strainer (blue colour) downstream of the dirt separator and fitted with a specific strainer mesh is able to intercept all particles remaining in circulation, thereby ensuring optimal initial cleaning of the pipe, to protect generator and system components.
The strainer is available also with a second cartridge (grey colour) fitted with a filtering mesh of bigger passage cross-section, which can be used **during maintenance phase after the first cleaning**.

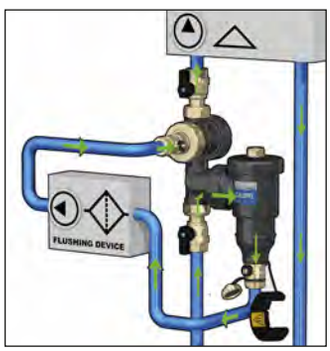
Cartridge strainer

The high-capacity strainer cartridge consists of two parts: an outer body with stainless steel mesh and a specially shaped internal element for collecting impurities.
The complete collection of impurities is always optimal, whether the installation is vertical, horizontal or 45°.

Accessory kit for circuit filling and flushing

A specific accessory kit (F49476), composed of a plug with a drain cock and an internal element for flow separation (black colour), allows the connection to an external machine for system flushing.

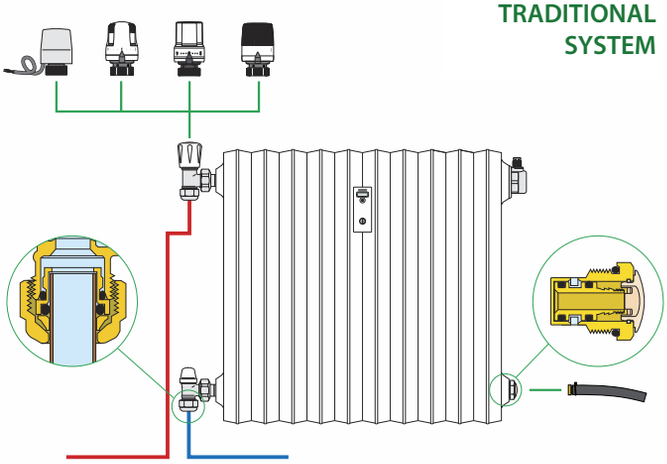




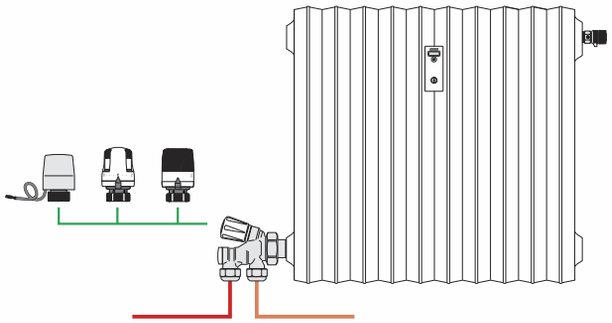
VALVES AND ACCESSORIES FOR RADIATORS

This diagram is just an indication

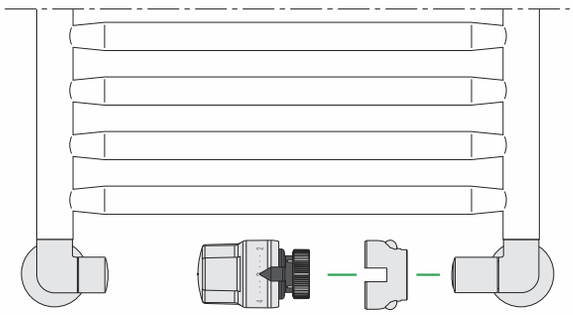
TRADITIONAL SYSTEM



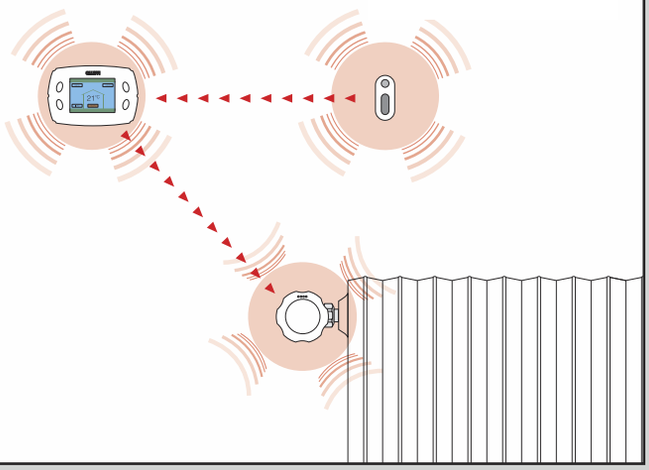
ONE-PIPE SYSTEM
TWO-PIPE SYSTEM



DESIGNER HEATING SYSTEM



RADIO WAVE



Convertible radiator and lockshield valves
Convertible radiator valves with pre-setting
Convertible radiator valves for designer heating systems
Thermostatic radiator valves
Double-angled thermostatic radiator and lockshield valves
Thermo-electric actuators
Electronic thermal control system for radiators
Thermostatic control heads
Manual radiator and lockshield valves
One-pipe and two-pipe radiator valves
Drain cock
Fittings
Valves for panel radiators

CONVERTIBLE RADIATOR AND LOCKSHIELD VALVES

338

tech. broch. 01009

Angled convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
338302	3/8″	23 p.1,5	2,22	10	50
338402	1/2″	23 p.1,5	2,70	10	50
338452	1/2″	3/4″	2,70	10	50

342

tech. broch. 01009

Angled lockshield valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) fully open		
342302	3/8″	23 p.1,5	2,42	10	50
342402	1/2″	23 p.1,5	3,99	10	50
342452	1/2″	3/4″	3,99	10	50

339

tech. broch. 01009

Straight convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
339302	3/8″	23 p.1,5	1,35	10	50
339402	1/2″	23 p.1,5	1,79	10	50
339452	1/2″	3/4″	1,79	10	50

343

tech. broch. 01009

Straight lockshield valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) fully open		
343302	3/8″	23 p.1,5	1,32	10	50
343402	1/2″	23 p.1,5	2,17	10	50
343452	1/2″	3/4″	2,17	10	50

401

tech. broch. 01009

Angled convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection		Kv (m³/h)		
401302	3/8″		2,22	10	50
401402	1/2″		2,70	10	50
401500	3/4″	without rubber seal	3,36	5	25
401603	1″	without rubber seal	4,47	5	25

431

tech. broch. 01009

Angled lockshield valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection		Kv (m³/h) fully open		
431302	3/8″		2,42	10	50
431402	1/2″		3,99	10	50
431503	3/4″	without rubber seal	4,52	5	25
431603	1″	without rubber seal	5,64	5	25

402

tech. broch. 01009

Straight convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection		Kv (m³/h)		
402302	3/8″		1,35	10	50
402402	1/2″		1,79	10	50
402500	3/4″	without rubber seal	2,58	5	25
402603	1″	without rubber seal	4,43	5	25

432

tech. broch. 01009

Straight lockshield valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection		Kv (m³/h) fully open		
432302	3/8″		1,32	10	50
432402	1/2″		2,17	10	50
432503	3/4″	without rubber seal	2,58	5	25
432603	1″	without rubber seal	4,81	5	25

CONVERTIBLE RADIATOR VALVES WITH PRE-SETTING

425

tech. broch. 01195

Angled convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
With pre-setting.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection		
425302	3/8″	23 p.1,5	1	20
425402	1/2″	23 p.1,5	1	20

426

tech. broch. 01195

Straight convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
With pre-setting.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection		
426302	3/8″	23 p.1,5	1	20
426402	1/2″	23 p.1,5	1	20

421

tech. broch. 01195

Angled convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
With pre-setting.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection			
421302	3/8″		1	20
421402	1/2″		1	20
421500	3/4″	without rubber seal	1	20

422

tech. broch. 01195

Straight convertible radiator valve
fitted for thermostatic control heads
and thermo-electric actuators.
With pre-setting.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection			
422302	3/8″		1	20
422402	1/2″		1	20
422500	3/4″	without rubber seal	1	20

Pre-setting device

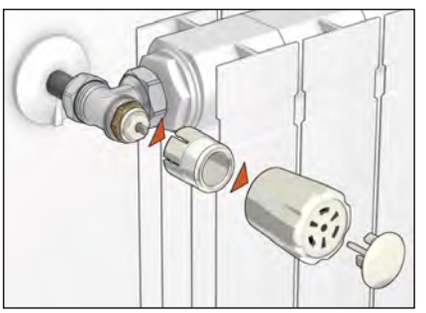
The convertible radiator valves are equipped with an internal device for pre-setting the head loss hydraulic characteristics.
Specific passage cross sections can be selected by means of the control nut, in order to generate the required resistance to the motion of the medium.

Each passage cross section determines a specific Kv value for the creation of the head loss, which corresponds to a setting position on a graduated scale.

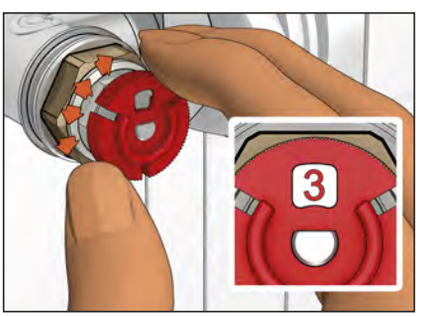
Depending on the position in the system, the valve can be pre-setted so as to obtain an immediate balancing of the hydraulic circuit, valid for both manual and thermostatic operation.

Pre-setting operation

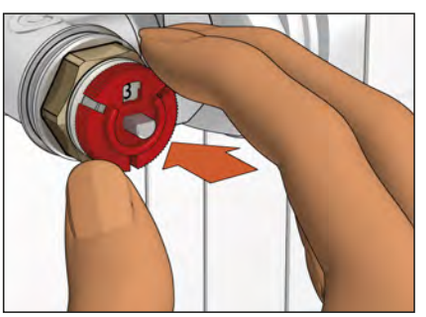
Remove the valve knob.



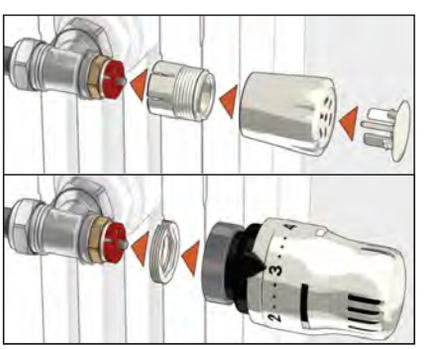
Lift the special control ring nut of the pre-setting device and turn the control stem to select the required position on the graduated scale.



Lower the ring nut again.



Position the manual knob, thermostatic control head or thermo-electric actuator on the valve.



HIGH-STYLE CONVERTIBLE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

4001

tech. broch. 01140

Pair consisting of:
- angled convertible radiator valve fitted for thermostatic control head **205 series**;
- angled lockshield valve;
- two pipe-covering/wall-covering shells and allen key.

To be used with fittings 437, 447, 681 and 679 series.

White finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) valve	Kv (m³/h) lockshield valve (f.o.)		
400101	1/2"	23 p.1,5	2,0	1,92	1	5

4003

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head **205 series**;
- lockshield valve, double-angled connections;
- two pipe-covering/wall-covering shells and allen key.

Right-hand version.

To be used with fittings 437, 447, 681 and 679 series.

White finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) valve	Kv (m³/h) lockshield valve (f.o.)		
400301	1/2"	23 p.1,5	1,27	1,37	1	5

4004

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head **205 series**;
- lockshield valve, double-angled connections;
- two pipe-covering/wall-covering shells and allen key.

Left-hand version.

To be used with fittings 437, 447, 681 and 679 series.

White finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) valve	Kv (m³/h) lockshield valve (f.o.)		
400401	1/2"	23 p.1,5	1,27	1,37	1	5

205

tech. broch. 01140

Thermostatic control head
for designer heating system valves.
Built-in sensor with liquid-filled element.
For valves 4001, 4003 and 4004 series.
White finish.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter, tamper-proof cap and special key for tamper-proof cap.

Code		
205005	1	10

205

tech. broch. 01140

Thermostatic control head
for designer heating system valves.
Built-in sensor with liquid-filled element.
For valves 4001, 4003 and 4004 series.
White finish.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter.

Code		
205000	1	5

209

tech. broch. 01140

Tamper-proof anti-theft cap for use in public places.
For thermostatic control heads 200, 204, 202 and 205 series.
To be used with special allen key code 209001.

Code		
209000	1	10

209

tech. broch. 01140

Special allen key for tamper-proof anti-theft cap.
To be used with tamperproof cap 209 series.

Code		
209001	1	10

HIGH-STYLE CONVERTIBLE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

4003

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head **205 series**;
- lockshield valve, double-angled connections;
- pipe-covering/wall-covering shell, connections: 50 mm centre distance.

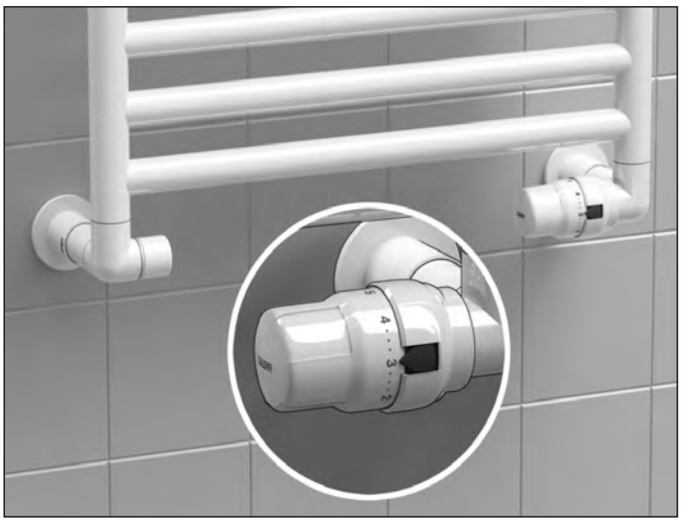
Central connections.
Right-hand version.

To be used with fittings 437, 447, 681 and 679 series.

White finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400311	1/2″	23 p.1,5	1,27	1,37	1	5

Example of HIGH-STYLE valve installation for designer heating systems, right-hand version, with thermostatic control head



4004

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head **205 series**;
- lockshield valve, double-angled connections;
- pipe-covering/wall-covering shell, connections: 50 mm centre distance.

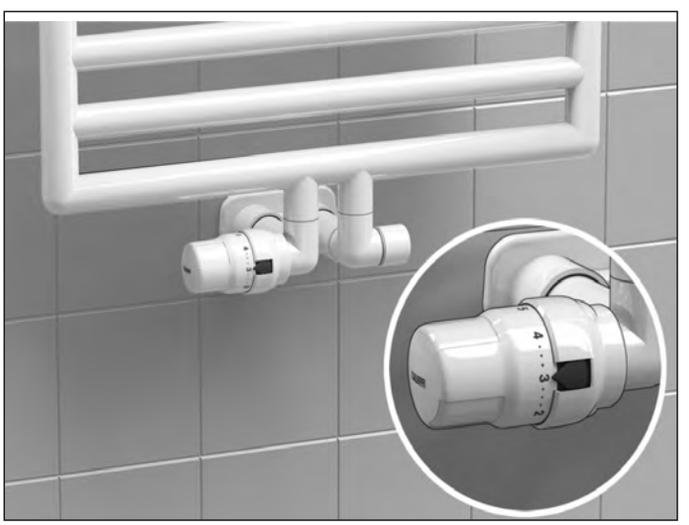
Central connections.
Left-hand version.

To be used with fittings 437, 447, 681 and 679 series.

White finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400411	1/2″	23 p.1,5	1,27	1,37	1	5

Example of HIGH-STYLE valve installation for designer heating systems with central connection, left-hand version, with thermostatic control head



HIGH-STYLE CONVERTIBLE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

4001

tech. broch. 01140

Pair consisting of:
- angled-convertible radiator valve fitted for thermostatic control head code 200015;
- angled lockshield valve;
- two pipe-covering/wall-covering shells and allen key.

To be used with fittings 437, 447, 681 and 679 series.

High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.


Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400100	1/2″	23 p.1,5	2,0	1,92	1	5

4003

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head code 200015;
- lockshield valve, double-angled connections;
- two pipe-covering/wall-covering shells and allen key.

Right-hand version.

To be used with fittings 437, 447, 681 and 679 series.

High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.


Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400300	1/2″	23 p.1,5	1,27	1,37	1	5

4004

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head code 200015;
- lockshield valve, double-angled connections;
- two pipe-covering/wall-covering shells and allen key.

Left-hand version.

To be used with fittings 437, 447, 681 and 679 series.

High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.


Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400400	1/2″	23 p.1,5	1,27	1,37	1	5

200

tech. broch. 01140

Thermostatic control head
for designer heating system valves.
Built-in sensor with liquid-filled element.
For valves 4001, 4003, 4004 and 3380 series.
High chrome finish.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter, tamper-proof cap and special key for tamper-proof cap.

Code		
200015	1	5

200

tech. broch. 01140

Thermostatic control head
for designer heating system valves.
Built-in sensor with liquid-filled element.
For valves 4001, 4003, 4004 and 3380 series.
High chrome finish.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter.

Code		
200013	1	10

209

tech. broch. 01140

Tamper-proof anti-theft cap for use in public places.
For thermostatic control heads 200 series.
High chrome finish.
To be used with special allen key code 209001.

Code		
209004	1	10

209

tech. broch. 01140

Special allen key for tamper-proof anti-theft cap.
To be used with tamperproof cap 209 series.

Code		
209001	1	10

HIGH-STYLE CONVERTIBLE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

4003

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head code 200015;
- lockshield valve, double-angled connections;
- pipe-covering/wall-covering shell, connections: 50 mm centre distance.

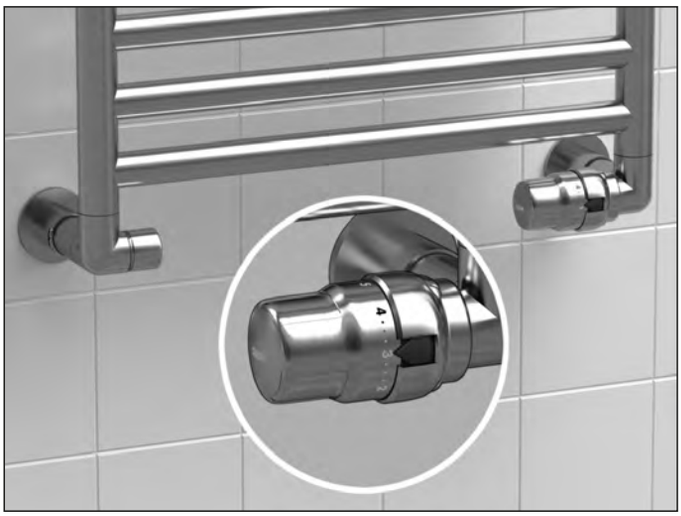
Central connections.
Right-hand version.

To be used with fittings 437, 447, 681 and 679 series.

High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400310	1/2"	23 p.1,5	1,27	1,37	1	5

Example of HIGH-STYLE valve installation for designer heating systems, right-hand version, with thermostatic control head



4004

tech. broch. 01140

Pair consisting of:
- double-angled convertible radiator valve fitted for thermostatic control head code 200015;
- lockshield valve, double-angled connections;
- pipe-covering/wall-covering shell, connections: 50 mm centre distance.

Central connections.
Left-hand version.

To be used with fittings 437, 447, 681 and 679 series.

High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m^3/h) valve	Kv (m^3/h) lockshield valve (f.o.)		
400410	1/2"	23 p.1,5	1,27	1,37	1	5

Example of HIGH-STYLE valve installation for designer heating systems with central connection, left-hand version, with thermostatic control head

CONVERTIBLE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

3380

Pair consisting of:
- convertible radiator valve fitted for thermo-electric actuators and thermostatic control heads;
- lockshield valve.

Angled connections.
High chrome finish.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) valve	Kv (m³/h) lockshield valve (f.o.)		
338040	1/2" M	23 p.1,5	2,70	3,99	1	5

437

Compression fitting, for annealed copper, hard copper, brass, mild and stainless steel pipes.
With O-Ring seal. **High chrome finish**.
Max. working pressure: 10 bar.
Temperature range : -25–120°C.

Code			
437112	23 p.1,5 - Ø 12	1	50
437114	23 p.1,5 - Ø 14	1	50

681

DARCAL

Self-adjustable diameter fitting for single and multilayer plastic pipes.
High chrome finish.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).

Code		$Ø_{inside}$	$Ø_{outside}$		
681101	23 p.1,5	9,5–10	12–14,4	1	50
681124	23 p.1,5	11,5–12	14–16,4	1	50

383

Fitting for conversion from copper to steel connection.

Code			
383231	23 p.1,5 F x 3/8" F	1	10
383241	23 p.1,5 F x 1/2" F	1	10

CONVERTIBLE RADIATOR AND LOCKSHIELD VALVES WITH PUSH FIT CONNECTION

338

Angled convertible radiator valve fitted for thermostatic control head and thermo-electric actuators.
Chrome plated.
Push fit connection for Ø 15 hard and annealed copper pipes or for extension code 936415.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
338415	1/2"	Ø 15	2,70	1	50

342

Angled lockshield valve.
Chrome plated.
Push fit connection for Ø 15 hard and annealed copper pipes or for extension code 936415.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

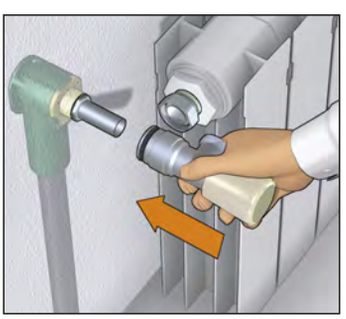
Code	Radiator connection	Pipe connection	Kv (m³/h) fully open		
342415	1/2"	Ø 15	3,99	1	50

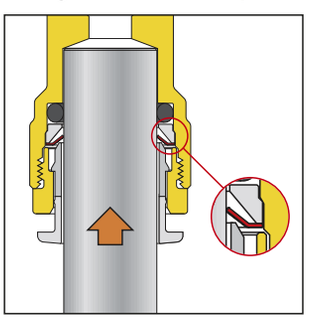
936

Extension for convertible radiator valves with push fit connection to wall connection fitting.
In polished stainless steel.
With shaped rubber seal.
Length: 100 mm (useful 88 mm).

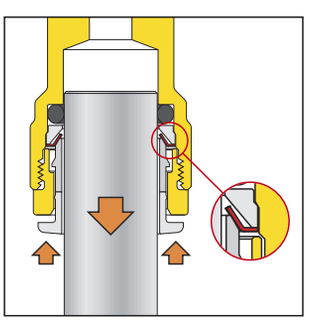
Code			
936415	1/2" x Ø 15	1	10

Installation of the valve on the pipe and locking with suitable clamps





Release by pressing on the outer ring



THERMOSTATIC RADIATOR VALVES

220

tech. broch. 01034

Angled thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kvs (m³/h)*		
220302	3/8″		2,29	10	50
220402	1/2″		2,39	10	50
220500	3/4″	without rubber seal	3,19	5	25

221

tech. broch. 01034

Straight thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kvs (m³/h)*		
221302	3/8″		1,05	10	50
221402	1/2″		1,52	10	50
221500	3/4″	without rubber seal	2,20	5	25

222

tech. broch. 01034

Angled thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
222302	3/8″	23 p.1,5	2,29	10	50
222402	1/2″	23 p.1,5	2,39	10	50

223

tech. broch. 01034

Straight thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
223302	3/8″	23 p.1,5	1,05	10	50
223402	1/2″	23 p.1,5	1,52	10	50

224

tech. broch. 01034

Reverse thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code		Kvs (m³/h)*		
224302	3/8″	0,93	1	20
224402	1/2″	1,39	1	20

227

tech. broch. 01034

Reverse thermostatic radiator valve
fitted for thermostatic control heads and
thermo-electric actuators. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
227402	1/2″	23 p.1,5	1,39	1	20

441

Compression fitting with metal olive.
For valves 220, 221, 224 and 225 series.
Chrome plated.
For copper pipes.

Code				
441312	3/8″ - Ø 12	olive	100	–
441414	1/2″ - Ø 14	single groove	100	–
441415	1/2″ - Ø 15	olive	100	–
441416	1/2″ - Ø 16	single groove	100	–

4490

Knob for thermostatic radiator valves.
For valves 220, 221, 222, 223, 224, 225, 226,
227 series.

Code		
449010	1	100

***Kvs:** flow rate for the valve equipped with thermostatic control head at the maximum open position.*

028

The EN 215 certification covers the combination of codes 200000/200001 and 201, 204 series thermostatic control heads with valves 220, 221, 222, 223, 224, 225, 226 and 227 series.

DOUBLE-ANGLED THERMOSTATIC RADIATOR AND LOCKSHIELD VALVES

225

tech. broch. 01034

Double-angled thermostatic radiator valve fitted for thermostatic control heads and thermo-electric actuators.
Right-hand version. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code		Kvs (m³/h)*		
225312	3/8"	0,96	1	20
225412	1/2"	1,40	1	20

225

tech. broch. 01034

Double-angled lockshield valve.
Right-hand version. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code		Kvs (m³/h)*		
225352	3/8"	1,05	1	20
225452	1/2"	1,40	1	20

225

tech. broch. 01034

Double-angled thermostatic radiator valve fitted for thermostatic control heads and thermo-electric actuators.
Left-hand version. Chrome plated.
For steel pipe (for copper pipe with 441 series). Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code		Kvs (m³/h)*		
225322	3/8"	0,96	1	20
225422	1/2"	1,40	1	20

225

tech. broch. 01034

Double-angled lockshield valve.
Left-hand version. Chrome plated.
For steel pipe (for copper pipe with 441 series).
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code		Kvs (m³/h)*		
225362	3/8"	1,05	1	20
225462	1/2"	1,40	1	20

226

tech. broch. 01034

Double-angled thermostatic radiator valve fitted for thermostatic control heads and thermo-electric actuators.
Right-hand version. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
226412	1/2"	23 p.1,5	1,40	1	20

226

tech. broch. 01034

Double-angled lockshield valve.
Right-hand version. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
226452	1/2"	23 p.1,5	1,40	1	20

226

tech. broch. 01034

Double-angled thermostatic radiator valve fitted for thermostatic control heads and thermo-electric actuators.
Left-hand version. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
226422	1/2"	23 p.1,5	1,40	1	20

226

tech. broch. 01034

Double-angled lockshield valve.
Left-hand version. Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kvs (m³/h)*		
226462	1/2"	23 p.1,5	1,40	1	20

028

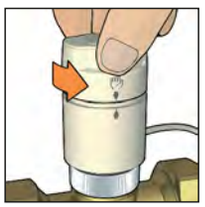
The EN 215 certification covers the combination of codes 200000/200001 and 201, 204 series thermostatic control heads with valves 220, 221, 222, 223, 224, 225, 226 and 227 series.

***Kvs:** flow rate for the valve equipped with thermostatic control head at the maximum open position.*

THERMO-ELECTRIC ACTUATORS

6563

tech. broch. 01142



Thermo-electric actuator.
With manual opening and position indicator.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 456, 220, 221, 222, 223, 224, 225, 226 and 227 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Starting current (656344/54): ≤ 250 mA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–50°C.
Protection class: IP 40.
Cable length: 80 cm.

CE

Code	Supply voltage V			
656312	230		1	10
656314	24		1	10
656302	230	without auxiliary microswitch	1	10
656304	24	without auxiliary microswitch	1	10

With low power consumption NEW

Code	Supply voltage V			
656354	24		1	–
656344	24	without auxiliary microswitch	1	–

6561

tech. broch. 01042

Thermo-electric actuator.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 456, 220, 221, 222, 223, 224, 225, 226 and 227 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 44 (vertical stem).
Cable length: 80 cm.

CE

Code	Supply voltage V			
656112	230		1	10
656114	24		1	10
656102	230	without auxiliary microswitch	1	10
656104	24	without auxiliary microswitch	1	10

6562

tech. broch. 01198

Thermo-electric actuator.
With opening position indicator.
Quick-coupling installation, with a clip adapter.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 456, 220, 221, 222, 223, 224, 225, 226 and 227 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

CE 13 SEV

Code	Supply voltage V			
656212	230		1	10
656214	24		1	10
656202	230	without auxiliary microswitch	1	10
656204	24	without auxiliary microswitch	1	10

6564

tech. broch. 01198

Thermo-electric actuator
with low power consumption.
With opening position indicator.
Quick-coupling installation, with a clip adapter.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 456, 220, 221, 222, 223, 224, 225, 226 and 227 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 250 mA.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

CE 13 SEV

Code	Supply voltage V			
656412	230		1	10
656414	24		1	10
656402	230	without auxiliary microswitch	1	10
656404	24	without auxiliary microswitch	1	10

Adapter for installing thermostatic and thermo-electric actuator with valves 338, 339, 401, 402, 425, 426, 421, 422, 455 and 456 series.

Code
F36077

ELECTRONIC THERMAL CONTROL SYSTEM FOR RADIATORS

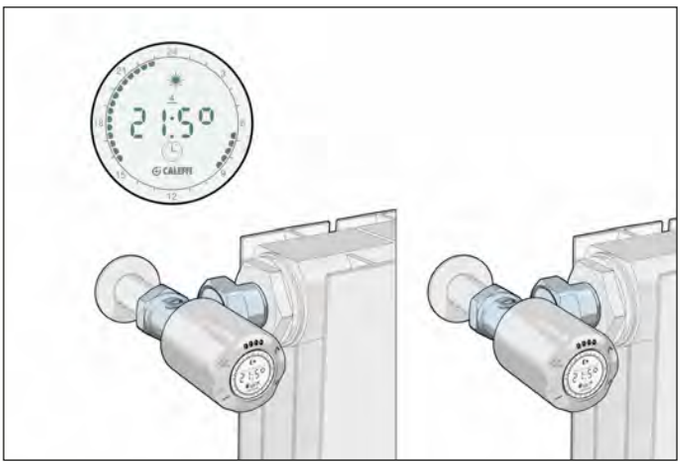
STAND ALONE system

210 WiCal®

tech. broch. 01263

Stand alone chrono-thermostatic control head, with backlit display.
For thermostatic and convertible radiator valves.
Touch button operation,
built-in temperature sensor.
Programmable directly, with displaying of temperatures and comfort-set back cycles.
Battery electric supply: 2 x 1,5 V AA (in package).
Quick-coupling installation with adaptor.
Protection class: IP 30.

Code			
210500		1	10



RADIO WAVE system

210 WiCal®

tech. broch. 01263

Electronic **radio wave** control head.
For thermostatic and convertible radiator valves.
Touch button operation,
built-in temperature sensor.
Can be connected to multi-zone thermal controller code 210100.
Radio communication
RF 868 MHz - Standard EnOcean®.
Battery electric supply:
2 x 1,5 V AA (in package).
Quick-coupling installation with adaptor.
Protection class: IP 30.

Code			
210510		1	10

Operating principle

The **radio wave** thermal control system comprises:
- multi-zone thermal controller
- electronic control head for radiator valve
- ambient temperature sensor (optional)

The thermal controller manages the temperature in different rooms by controlling the electronic actuators installed on the valves on each radiator. The actual temperature is measured by the sensors in the room and/or integrated into the control head. Depending on the set temperature parameters and the comfort or set back cycles, the controller sends a modulating opening or closing signal to the actuators and an ON/OFF signal to the boiler. The system is managed by radio wave signals.

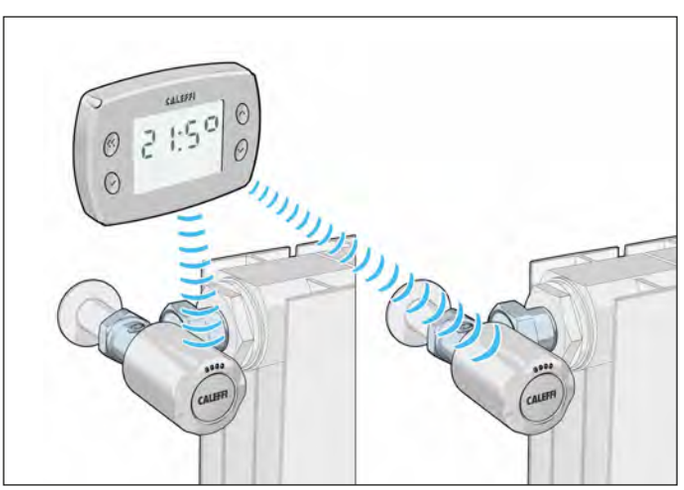
The functional details include:
- easy and quick linking of wireless devices for rapid installation;
- management of up to 8 temperature zones, which in turn are each able to control up to 4 actuators, thus with maximum system expansion of up to 32 actuators;
- easy individual time band programming for each zone, for every day of the week. Pre-set time band programmes and customisable programmes.

210 WiCal®

tech. broch. 01263

Radio wave multi-zone thermal controller.
For managing electronic control heads code 210510.
Radio communication
RF 868 MHz - Standard EnOcean®.
Transmission distance 30 m in closed rooms.
Colour TFT graphic display.
Touch button operation.
Possibility to control the heat settings in up to 8 different zones.
Auto - Holiday - Eco - Comfort functions.
Electric supply: 24 V (dc).
Auxiliary contact for heating request: 5 A.
Protection class: IP 30.
Power supply unit: **230 V (ac) / 24 V (dc)**.

Code				
210100	I - GB - D - F	1	10
210101	ES - NL - PT - F	1	10
210102	SL - HR - SR - SK	1	10



ELECTRONIC THERMAL CONTROL SYSTEM FOR RADIATORS

RADIO WAVE system

210 WiCal®

tech. broch. 01263

Radio wave ambient temperature sensor.
For controlling the temperature in each zone or room.
Radio communication RF 868 MHz - Standard EnOcean®.
Can be connected to multi-zone thermal controller 210 series.
Electric supply with photovoltaic cell and buffer battery.
Protection class: IP 30.

enocean®

Code			
210001		1	14

NEW

210 WiCal®

Radio wave open window sensor.
For controlling the temperature in each zone or room.
Radio communication RF 868 MHz - Standard EnOcean®.
Can be connected to multi-zone thermal controller 210 series.
Electric supply with photovoltaic cell and buffer battery.
Protection class: IP 30.

enocean®

Code			
210009		1	–

210

tech. broch. 01263

1st and 2nd level wireless signal repeater with antenna.
Recessed or false ceiling version.
Electric supply: 230 V (ac).
Radio communication RF 868 MHz - Standard EnOcean®.
Transmission distance 30 m in closed rooms.
Stand-by power consumption: 0,6 W.

enocean®

Code			
210010		1	–

210

tech. broch. 01263

Radio wave 1st and 2nd level signal repeater with plug for power output.
Electric supply: 230 V (ac).
Radio communication RF 868 MHz - Standard EnOcean®.
Transmission distance 30 m in closed rooms.
Stand-by power consumption: 0,9 W.

enocean®

Code			
210011		1	–

210

tech. broch. 01263

Click switch - Radio wave and battery-less switch transmitter.
Radio communication RF 868 MHz - Standard EnOcean®.

The three buttons allow to activate for all the zones the operating modes ECO (saving mode), AUTO (automatic mode), OFF (switched off mode) without acting directly on the controller.

enocean®

Code			
210006		1	–

NEW

210

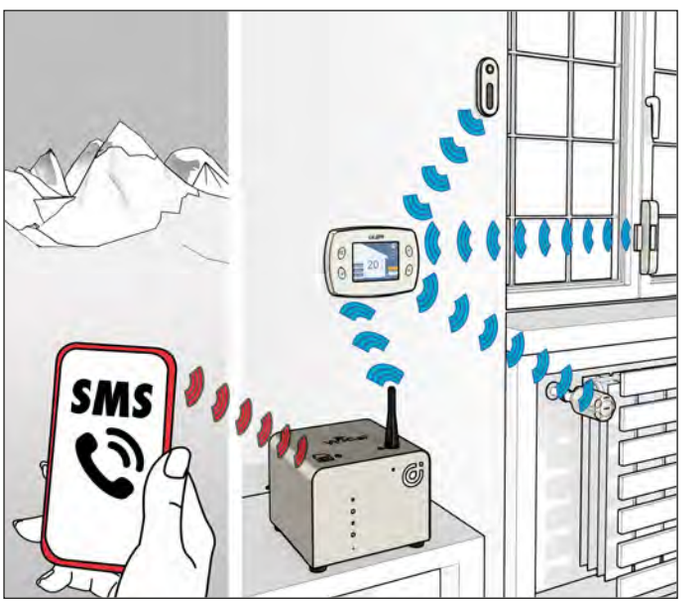
GSM interface module
for remote control of WiCal®,
complete with room temperature probe.
Radio communication
RF 868 MHz - Standard EnOcean®.
Electric supply: 230 V (ac).
GSM / GPRS Quadri-band.
Power consumption: max. 1,4 W.
Installation in DIN template.

enocean®

Code			
210015		1	–

Operating principle

The module allows a GSM connection to the WiCal® controller. Through an SMS it is possible to set the WiCal® controller in the operating mode "AUTO" or "OFF". The module shows, via SMS, the temperature as detected by the on-board sensor.



Accessories and spare parts for electronic thermal control system 210 series.

Code			
210008	pair of lithium batteries	1	–
210005	tamper-proof kit for actuators	1	10
F49671	adapter for 455 series	1	–
210007	radio signals checking and validation tester	1	–
210004	power supply unit spare part for code 210100	1	–

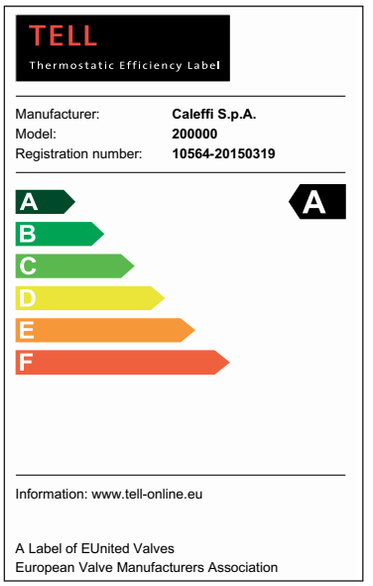
THERMOSTATIC CONTROL HEADS

Thermostatic control heads in A Class

EUnited Valves (The European Valve Manufacturers Association set up in Brussels) has prepared a classification system for products that manage home comfort and water responsibly in the residential field and, more specifically, for thermostatic valves.

Caleffi thermostatic control heads were included in the list of **TELL**-approved (Thermostatic Efficiency Label) products and were placed in the **A Efficiency Class**.

This classification guarantees that thermostatic valves are able to contribute to the energy saving of heating systems.



201

tech. broch. 01034

Thermostatic control head for thermostatic and convertible radiator valves.
With remote sensor.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
Capillary length: 2 m.
With adapter.

Code		
201000	1	10

200

tech. broch. 01034

Thermostatic control head for convertible radiator valves.
Built-in sensor with liquid-filled element.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter.

Code		
200000	10	50

200

tech. broch. 01034

Thermostatic control head for convertible radiator valves.
Built-in sensor with liquid-filled element.
For valves 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.

Code		
200001	1	10

209

tech. broch. 01034

Tamper-proof anti-theft cap for use in public places.
For thermostatic control heads 200, 204, 202 and 205 series.
To be used with speciale allen key code 209001.

Code		
209000	1	10

209

tech. broch. 01034

Special allen key for tamper-proof anti-theft cap.
To be used with tamperproof cap 209 series.

Code		
209001	1	10

THERMOSTATIC CONTROL HEADS

204

tech. broch. 01242

Thermostatic control head
for convertible radiator valves.
Built-in sensor with liquid-filled element.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
With adapter.

Code		
204000	10	50

204

tech. broch. 01242

Thermostatic control head for thermostatic and convertible radiator valves.
With remote sensor.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 455, 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
Capillary length: 2 m.
With adapter.

Code		
204100	1	10

202

tech. broch. 01009

Thermostatic control head for radiator valves.
Built-in sensor with liquid-filled element.
With LCD type ambient temperature indicator.
For valves 338, 339, 401, 402, 455, 220, 221, 222, 223, 224, 225, 226 and 227 series.
Graduated scale from ❄ to 5 corresponding to a temperature adjustment range from 7°C to 28°C.
Room temperature indicator range: 16–26°C.
With adapter.

Visibility with sufficient lighting

Room temperature indicator

The room temperature indicator is a LCD type. It gets green coloured in correspondence with the actual room temperature reading.
A particular pivoting system keeps the indicator always in vertical position, thus allowing its optimal visualization.

Code		
202000	1	5

203

tech. broch. 01034

Thermostatic control head for thermostatic and convertible radiator valves;
with contact probe,
for medium temperature limiting.
For valves 220, 221, 222, 223, 224, 225, 226, 227, 338, 339, 401, 402 and 455 series.
Pre-set temperature scale.
Capillary length: 2 m.

Code	Temperature range		
203502	20–50°C	1	25
203702	40–90°C	1	–

475

Contact probe mounting bracket.
For thermostatic control heads 203 series.

Code			
475001		1	–

475

Probe pocket.
For thermostatic control heads 203 series.

Code			
475002	for code 203502	1	–
475003	for code 203702	1	–

472

Thermostatic control head with remote adjusting knob, liquid-filled element.
For valves 220, 221, 222, 223, 224, 225, 226, 227 series (direct coupling).
For valves 338, 339, 401, 402, 455 series (coupling with adapter).
Temperature range: 6–28°C.
Capillary length: 2 m.

Code		
472000	1	5

4498

Single wall-covering plate in white ABS.

Code		
449800	100	–

MANUAL RADIATOR AND LOCKSHIELD VALVES

340

tech. broch. 01030

Angled manual radiator valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
340302	3/8″	23 p.1,5	2,42	10	50
340402	1/2″	23 p.1,5	3,99	10	50
340452	1/2″	3/4″	3,99	10	50

341

tech. broch. 01030

Straight manual radiator valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
341302	3/8″	23 p.1,5	1,32	10	50
341402	1/2″	23 p.1,5	2,17	10	50

342

tech. broch. 01030

Angled lockshield valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) fully open		
342302	3/8″	23 p.1,5	2,42	10	50
342402	1/2″	23 p.1,5	3,99	10	50
342452	1/2″	3/4″	3,99	10	50

343

tech. broch. 01030

Straight lockshield valve.
Chrome plated.
For copper, single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) fully open		
343302	3/8″	23 p.1,5	1,32	10	50
343402	1/2″	23 p.1,5	2,17	10	50

411

tech. broch. 01030

Angled manual radiator valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kv (m³/h)		
411302	3/8″		2,42	10	50
411402	1/2″		3,99	10	50
401500*	3/4″	without rubber seal	3,36	5	25
401603*	1″	without rubber seal	4,47	5	25

** convertible radiator valve*

412

tech. broch. 01030

Straight manual radiator valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kv (m³/h)		
412302	3/8″		1,32	10	50
412402	1/2″		2,17	10	50
402500*	3/4″	without rubber seal	2,58	5	25
402603*	1″	without rubber seal	4,43	5	25

** convertible radiator valve*

431

tech. broch. 01030

Angled lockshield valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kv (m³/h) fully open		
431302	3/8″		2,42	10	50
431402	1/2″		3,99	10	50
431503	3/4″	without rubber seal	4,52	5	25
431603	1″	without rubber seal	5,64	5	25

432

tech. broch. 01030

Straight lockshield valve.
Chrome plated.
For steel pipe.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			Kv (m³/h) fully open		
432302	3/8″		1,32	10	50
432402	1/2″		2,17	10	50
432503	3/4″	without rubber seal	2,58	5	25
432603	1″	without rubber seal	4,81	5	25

ONE-PIPE AND TWO-PIPE RADIATOR VALVES FOR DESIGNER HEATING SYSTEMS

NEW

4005

tech. broch. 01324

Convertible radiator valve fitted for thermostatic control heads and thermo-electric actuator.
High chrome finish.
Factory set for one-pipe systems, adjustable for two-pipe systems.
Right-hand version.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator:
- with manual control knob: 45%,
- with thermostic control head (proportional band 2K): 30%.

Outlet centre distance: 40 mm.
Brass probe: 40 cm.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) one-pipe	Kv (m³/h) two-pipe		
400510	1/2″	23 p.1,5	1,6	0,96	1	5

4005

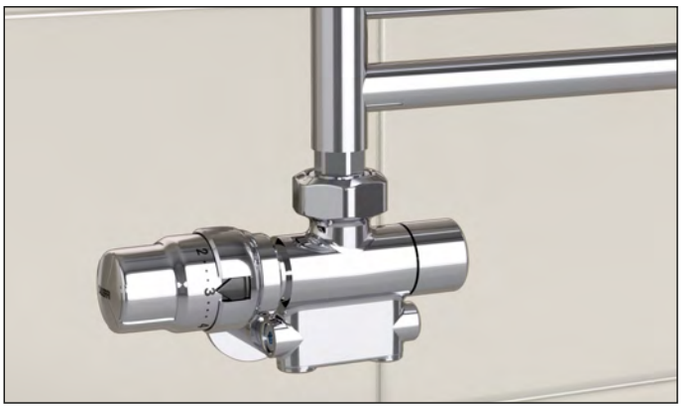
tech. broch. 01324

Convertible radiator valve fitted for thermostatic control heads and thermo-electric actuator.
High chrome finish.
Factory set for one-pipe systems, adjustable for two-pipe systems.
Left-hand version.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator:
- with manual control knob: 45%,
- with thermostic control head (proportional band 2K): 30%.

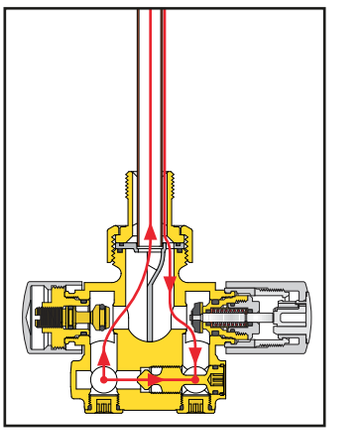
Outlet centre distance: 40 mm.
Brass probe: 40 cm.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h) one-pipe	Kv (m³/h) two-pipe		
400520	1/2″	23 p.1,5	1,6	0,96	1	5

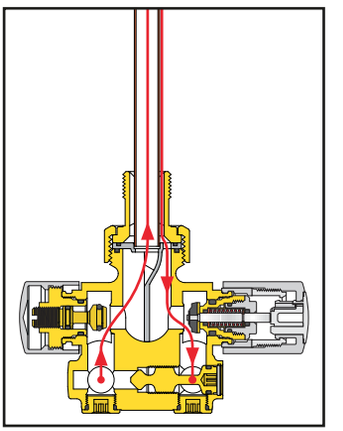
Installation example of the designer heating system radiator valve, vertical probe, left-hand version, with thermostatic control head



One-pipe application



Two-pipe application



Flow and return connections can be inverted by means of the rotation of the specific deflector.

VALVES FOR ONE-PIPE SYSTEMS

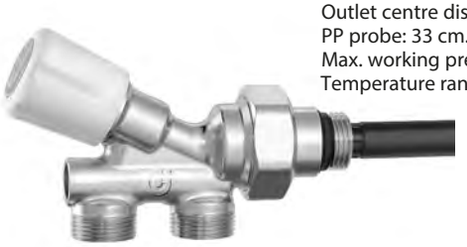
NEW

456

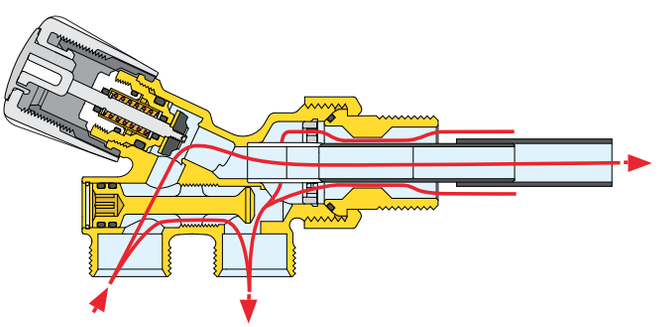
tech. broch. 01323

Convertible radiator valve fitted for thermostatic control heads and thermo-electric actuator.
For one-pipe systems.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator:
- with manual control knob: 27%,
- with thermostic control head (proportional band 2K): 20%.

Outlet centre distance: 35 mm.
PP probe: 33 cm.
Max. working pressure: 10 bar.
Temperature range: 5÷100°C.



Code	Radiator connection	Pipe connection	Kv (m³/h)		
456400	1/2″	23 p.1,5	1,6	10	–
456500	3/4″	23 p.1,5	1,6	10	–



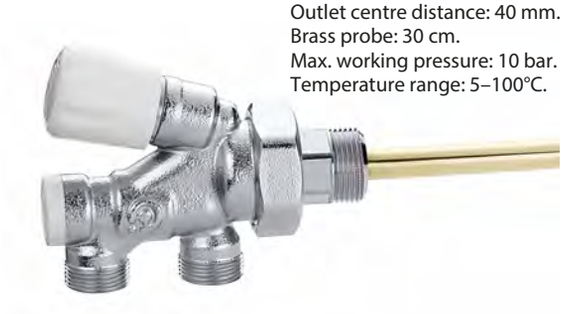
Flow and return connections can be inverted

ONE-PIPE AND TWO-PIPE RADIATOR VALVES

455

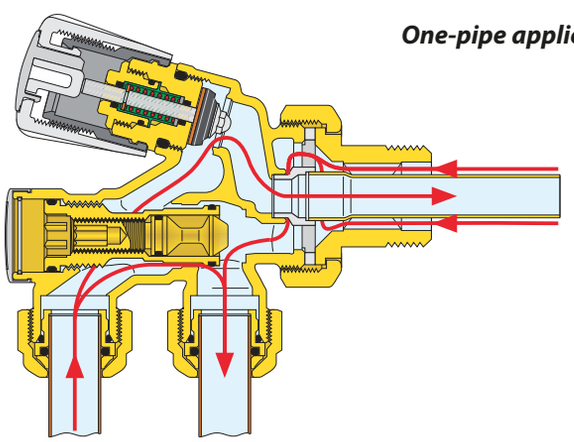
tech. broch. 01051

Convertible radiator valve fitted for thermostatic control heads and thermo-electric actuator.
Chrome plated.
Factory set for one-pipe systems, adjustable for two-pipe systems.
For copper, single and multilayer plastic pipes.
Outlet centre distance: 40 mm.
Brass probe: 30 cm.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

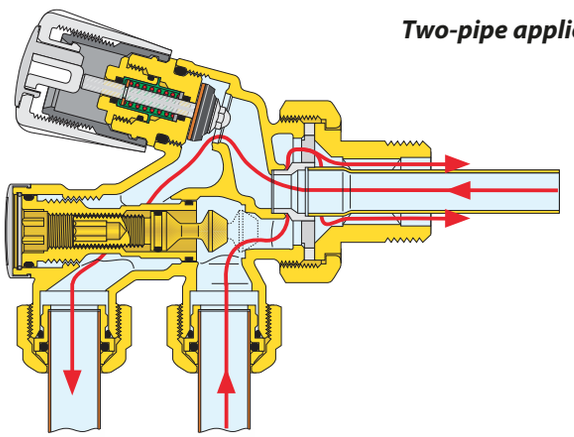


Code	Radiator connection	Pipe connection	Kv (m³/h) one-pipe	Kv (m³/h) two-pipe		
455400	1/2″	23 p.1,5	2,00	1,10	10	–
455500	3/4″	23 p.1,5	2,00	1,10	10	–
455600	1″ right	23 p.1,5	2,00	1,10	10	–
455601	1″ left	23 p.1,5	2,00	1,10	10	–

One-pipe application



Two-pipe application



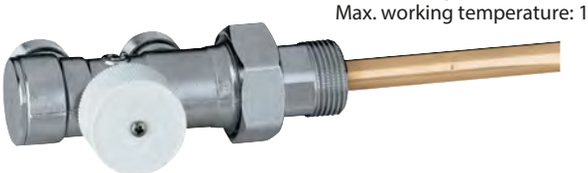
4501

Radiator valve for one-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator: 100%.
Without template and wall-covering plate.
Outlet centre distance: 40 mm.
Brass probe: 30 cm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
450140	1/2″	23 p.1,5	3,20	10	40
450150	3/4″	23 p.1,5	3,70	10	–

348

Radiator valve for one-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator: 100%.
With front adjusting handle.
Without template and wall-covering plate.
Outlet centre distance: 40 mm.
Brass probe: 30 cm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.



Code	Radiator connection	Pipe connection	Kv (m³/h)		
348400	1/2″	23 p.1,5	3,10	10	–
348500	3/4″	23 p.1,5	3,50	10	–

452

Radiator valve for one-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator: 50%.
For Ø 15 mm outside probe (454 series).
Wall connections.
Complete with template, wall-covering plate and probe connection.
Outlet centre distance: 40 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)			
452400	1/2″	23 p.1,5	2,20	**36,35**	1	25

ONE-PIPE AND TWO-PIPE RADIATOR VALVES AND ACCESSORIES

452

Radiator valve for two-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
For Ø 15 mm outside probe (454 series).
Wall connections.
Complete with template, wall-covering plate and probe connection.
Outlet centre distance: 40 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
452401	1/2"	23 p.1,5	1,80	1	25

328

Radiator valve for one-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
Flow rate to the radiator: 50%.
For Ø 15 mm outside probe (454 series).
Floor connections.
Complete with probe connection.
Outlet centre distance: 40 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
328400	1/2"	23 p.1,5	2,20	1	20

328

Radiator valve for two-pipe systems.
Chrome plated.
For copper, single and multilayer plastic pipes.
For Ø 15 mm outside probe (454 series).
Floor connections.
Complete with probe connection.
Outlet centre distance: 40 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection	Kv (m³/h)		
328401	1/2"	23 p.1,5	1,80	1	20

459

Angled connection for one-pipe valves 328 and 452 series and convertible radiator valves code 339402.
Chrome plated.

Code			
459001	1/2" M x 3/4" F nut	10	–

4496

Wall template.
For valves 4501, 452, 328, 348 and 455 series.
Outlet centre distance: 40 mm.

Code		
449640	10	–

4497

Wall-covering plate.
For valves 4501, 452, 328, 348 and 455 series.
In white ABS.
Outlet centre distance: 40–50 mm.

Code		
449740	50	–

453

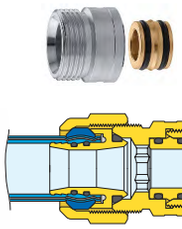
Brass pipe extension for probe.
For valves 348, 4501 and 455 series.

Code			
453020	200 mm (x 348-4501-455400-455500)	10	–
453030	300 mm (x 455600-455601)	10	–

454

Ø 15 mm brass outside probe. Chrome plated.
To be connected with valves 452 and 328 series at the bottom and radiator valves 223, 227, 339 and 341 series.

Code			
454060	600 mm	5	–
454090	900 mm	5	–



383

Connection fitting
with O-Ring seal
for use with 3/4" 679 and 681 series.
Chrome plated.

Code			
383551	3/4" M x 23 p.1,5 F	10	100

382

Reduced tailpiece.
Chrome plated.

Code			
382532	3/4" F nut x 3/8" M	1	–

381

Telescopic union tailpiece with nut
for radiator valves and lockshield valves.
Extension range: 15 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Chrome plated.

Code			
381302	1/2" F nut x 3/8" M	1	10
381402	3/4" F nut x 1/2" M	1	10

383

Female fitting - olive coupling.
Chrome plated.

Code			
383151	3/4" M x 23 p.1,5 F	10	–

384

Male fitting - olive coupling.
Chrome plated.

Code			
384031	3/8" M x 23 p.1,5 M	10	–
384041	1/2" M x 23 p.1,5 M	10	–

382

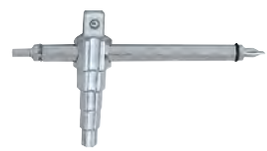
Fitting with 23 p.1,5 captive nut.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code			
382000	23 p.1,5 M x 23 p.1,5 F nut	10	–

936

Extension for connection between
elbow fitting 933 series and radiator valves.
Annealed copper, chrome plated.
With shaped rubber seal.
Length: 200 mm
(useful 188 mm).

Code			
936400	1/2" x Ø 16	1	50



3871

Universal key.
Use for 3/8" to 1" union tailpiece.

Code			
387127		1	10

3871

Wrench for 26 and 30 mm hexagonal nuts.
For fittings 437, 444, 445, 447, 679, 680,
681 23 p.1,5 and 3/4" series.

Code			
387100		1	4

560

tech. broch. 01056

Drain cock for radiators
and wall-mounted boilers.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Chrome plated.

Code			
560421 ◆	1/2"	10	–
560000	extractor hose connection	25	–

◆ *One extractor hose connection code 560000 is included in each 10-item package.*

3872

Replacement kit for convertible and thermostatic radiator valves headwork.
Equipped with 20 spare headworks.
Only for 3/8" and 1/2" valves.
For valves 338, 339, 401, 402, 425, 426, 421, 422, 220, 221, 222, 223 224, 225, 226 and 227 series.

Code		
387200	1	–

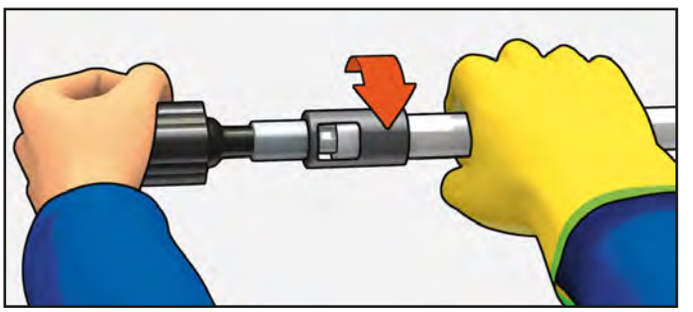
CALIBRATOR FOR MULTILAYER PIPES

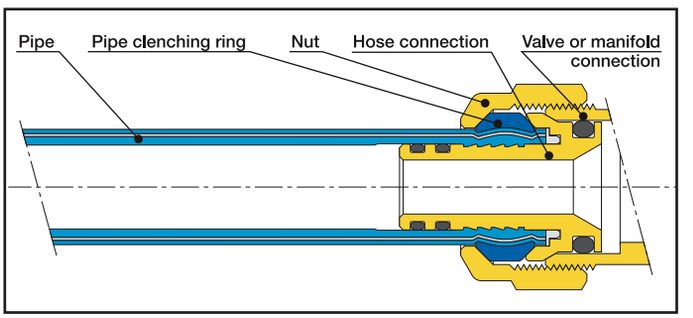
679

Calibrator and handle to adjust multilayer pipes diameter before
use with fittings 679 series.

Code			
679001	calibrator Ø 14x2	1	–
679002	calibrator Ø 16x2	1	–
679003	calibrator Ø 16x2,25	1	–
679004	calibrator Ø 18x2	1	–
679006	calibrator Ø 20x2	1	–
679007	calibrator Ø 20x2,25	1	–
679008	calibrator Ø 20x2,5	1	–
679009	handle for calibrator	1	–

Multilayer pipe calibration and installation of fitting components 679 series





FITTINGS

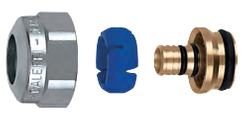
679

DARCAL

Fitting for multilayer plastic pipes
for continuous high temperature use.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series (see page 61).

Code			
679014	23 p.1,5 - Ø 14x2	10	100
679024	23 p.1,5 - Ø 16x2	10	100
679025	23 p.1,5 - Ø 16x2,25	10	100
679044	23 p.1,5 - Ø 18x2	10	100



681

DARCAL

Self-adjustable diameter fitting
for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).
Chrome plated.

Code		$Ø_{inside}$	$Ø_{outside}$		
681000	23 p.1,5	7,5– 8	12–14	10	100
681002	23 p.1,5	9 – 9,5	14–16	10	100
681001	23 p.1,5	9,5–10	12–14	10	100
681006	23 p.1,5	9,5–10	14–16	10	100
681015	23 p.1,5	10,5–11	14–16	10	100
681017	23 p.1,5	10,5–11	16–18	10	100
681024	23 p.1,5	11,5–12	14–16	10	100
681026	23 p.1,5	11,5–12	16–18	10	100
681035	23 p.1,5	12,5–13	16–18	10	100
681044	23 p.1,5	13,5–14	16–18	10	100

447

Pre-assembled compression fitting,
for soft annealed copper, hard copper,
brass, mild and stainless steel pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.
Chrome plated.

Code			
447010	23 p.1,5 - Ø 10	100	–
447012	23 p.1,5 - Ø 12	100	–
447014	23 p.1,5 - Ø 14	100	–
447015	23 p.1,5 - Ø 15	100	–
447016	23 p.1,5 - Ø 16	100	–

437

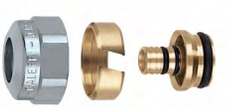
Compression fitting,
for soft annealed copper, hard copper,
brass, mild and stainless steel pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.
Chrome plated.

Code			
437010	23 p.1,5 - Ø 10	1001	–
437012	23 p.1,5 - Ø 12	0010	–
437014	23 p.1,5 - Ø 14	0	–
437015	23 p.1,5 - Ø 15	100	–
437016	23 p.1,5 - Ø 16	100	–

438

Compression fitting for copper pipe, with
PTFE seal.
Chrome plated.

Code			
438010	23 p.1,5 - Ø 10	100	–
438012	23 p.1,5 - Ø 12	100	–
438014	23 p.1,5 - Ø 14	100	–
438015	23 p.1,5 - Ø 15	100	–
438016	23 p.1,5 - Ø 16	100	–
438018	23 p.1,5 - Ø 18 with metal olive	100	–

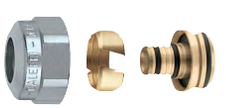


445

Compression fitting,
for PE coated copper pipes,
"**Q-tec®**" **KME** and "**TUBOTECH®**" series.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

"Q-tec®" and "TUBOTECH®" pipes must be cut and prepared using the specific tool indicated by the manufacturer.

Code			
445014	23 p.1,5 - Ø 14	10	100
445016	23 p.1,5 - Ø 16	10	100



445

Compression fitting,
for "VIEGA" multilayer pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

"VIEGA" pipes must be calibrated using the specific tool indicated by the manufacturer.

Code			
445024	23 p.1,5 - Ø 16x2,2	10	100

FITTINGS

679

DARCAL

Fitting for multilayer plastic pipes
for continuous high temperature use.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series (see page 61).

Code			
679264	3/4" - Ø 20x2	10	100
679265	3/4" - Ø 20x2,25	10	100
679266	3/4" - Ø 20x2,5	10	100

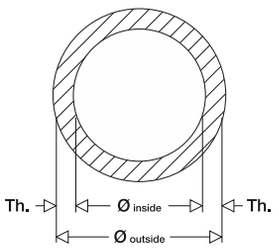
681

DARCAL

Self-adjustable diameter fitting
for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).
Chrome plated.

Code		$Ø_{inside}$	$Ø_{outside}$		
681502	3/4"	7,5– 8	12–14	10	100
681500	3/4"	9 – 9,5	14–16	10	100
681501	3/4"	9,5–10	12–14	10	100
681506	3/4"	9,5–10	14–16	10	100
681515	3/4"	10,5–11	14–16	10	100
681517	3/4"	10,5–11	16–18	10	100
681524	3/4"	11,5–12	14–16	10	100
681526	3/4"	11,5–12	16–18	10	100
681535	3/4"	12,5–13	16–18	10	100
681537	3/4"	12,5–13	18–20	10	100
681546	3/4"	13,5–14	18–20	10	100
681555	3/4"	14,5–15	18–20	10	100
681556	3/4"	15 –15,5	18–20	10	100
681564	3/4"	15,5–16	18–20	10	100

Example: 681 series fitting selection



Known both the outside and inside diameters (**ex.: 17 mm** and **13 mm**);

or known the outside diameter (**ex.: Øo 17 mm**) and the thickness (**ex.: th. 2 mm**) and considering that:

$Ø_{outside}$ – 2 · th. = $Ø_{inside}$

17 – 2 · 2 = 13 mm

Look within the table for the code matching both diameters:

Code		$Ø_{inside}$	$Ø_{outside}$
681035	23 p.1,5	12,5–13	16–18

437

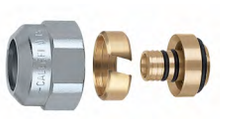
Compression fitting,
for annealed copper, hard copper, brass,
mild and stainless steel pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.
Chrome plated.
For connecting pipes to special valves
for panel radiators.

Code			
437510	3/4" - Ø 10	100	–
437512	3/4" - Ø 12	100	–
437514	3/4" - Ø 14	100	–
437515	3/4" - Ø 15	100	–
437516	3/4" - Ø 16	100	–
437518	3/4" - Ø 18	10	–

438

Compression fitting for copper pipe,
with PTFE seal.
Chrome plated.

Code			
438512	3/4" - Ø 12	100	–
438514	3/4" - Ø 14	100	–
438515	3/4" - Ø 15	100	–
438516	3/4" - Ø 16	100	–
438518	3/4" - Ø 18	100	–

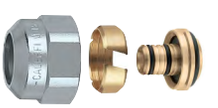


445

Compression fitting,
for PE coated copper pipes,
"**Q-tec®**" **KME** and "**TUBOTECH®**" series.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

"Q-tec®" and "TUBOTECH®" pipes must be cut and prepared using the specific tool indicated by the manufacturer.

Code			
445514	3/4" - Ø 14	10	100
445516	3/4" - Ø 16	10	100
445520	3/4" - Ø 20	10	100



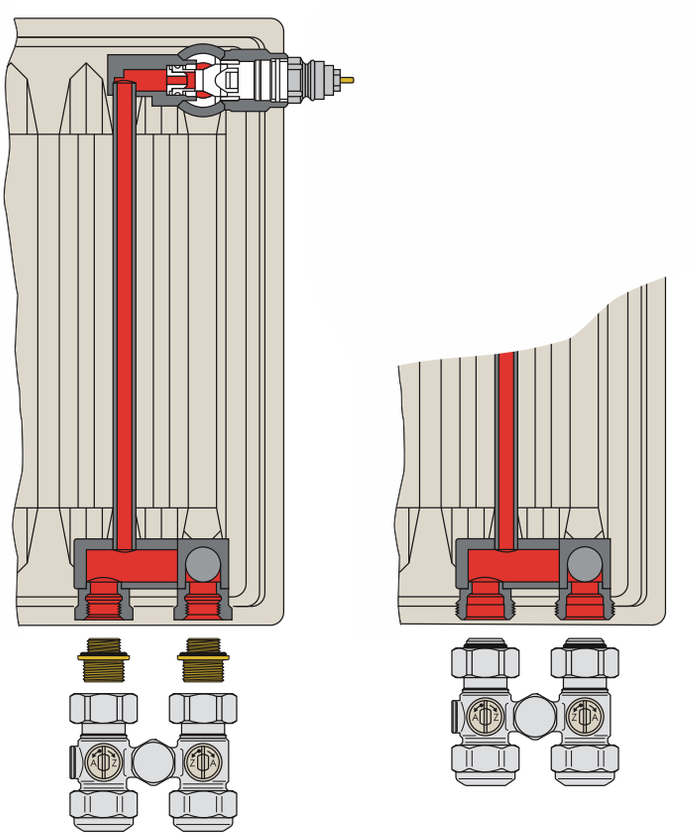
445

Compression fitting,
for "VIEGA" multilayer pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.
Chrome plated.

"VIEGA" pipes must be calibrated using the specific tool indicated by the manufacturer.

Code			
445524	3/4" - Ø 16x2,2	10	100
445546	3/4" - Ø 20x2,8	10	100

VALVES FOR PANEL RADIATORS



This valves are installed on a particular kind of panel radiators, featuring both the connections at the bottom and an inner pipe, invisible from outside, providing the flow medium to the upper valve.

They come in two versions: for two-pipe and one-pipe systems. Both are available straight (pipes exiting the floor) and angled (pipes exiting the wall). The two-pipe version is equipped with two ball shut-off valves; the one-pipe, in addition to the shut-off valves, is equipped with an adjustable by-pass from 30% to 50% of the flow rate towards the radiator.

3010

Valve for panel radiators
with built-in thermostatic valve unit.
Single valve straight version
(floor connections) with 1/2″ F radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301040	1/2″ M	3/4″	1	25

3011

Valve for panel radiators
with built-in thermostatic valve unit.
Single valve angled version
(wall connections) with 1/2″ F radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301140	1/2″ M	3/4″	1	25

3012

Valve for panel radiators
with built-in thermostatic valve unit.
One-pipe straight version
(floor connections) with 1/2″ F radiator connections.
With adjustable by-pass.
With non-return device.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301241	1/2″ M	3/4″	1	25

3013

Valve for panel radiators
with built-in thermostatic valve unit.
One-pipe angled version
(wall connections) with 1/2″ F radiator connections.
With adjustable by-pass.
With non-return device.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301341	1/2″ M	3/4″	1	25

VALVES FOR PANEL RADIATORS

3010

Valve for panel radiators
with built-in thermostatic valve unit.
Single valve straight version
(floor connections)
with 3/4" M radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301050	3/4" F	3/4"	1	25

3014

Straight single valve for panel radiators
with built-in thermostatic valve unit
(floor connections)
with 1/2" F radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301440	1/2" M	3/4"	1	50

3011

Valve for panel radiators
with built-in thermostatic valve unit. Single valve angled version
(wall connections)
with 3/4" M radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301150	3/4" F	3/4"	1	25

3015

Angled single valve for panel radiators
with built-in thermostatic valve unit
(wall connections)
with 1/2" F radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301540	1/2" M	3/4"	1	50

3012

Valve for panel radiators
with built-in thermostatic valve unit.
One-pipe straight version
(floor connections)
with 3/4" M radiator connections.
With adjustable by-pass.
With non-return device.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301250	3/4" F	3/4"	1	25

3014

Straight single valve for panel radiators
with built-in thermostatic valve unit
(floor connections)
with 3/4" M radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301450	3/4" F	3/4"	1	50

3013

Valve for panel radiators
with built-in thermostatic valve unit.
One-pipe angled version
(wall connections)
with 3/4" M radiator connections.
With adjustable by-pass.
With non-return device.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301350	3/4" F	3/4"	1	25

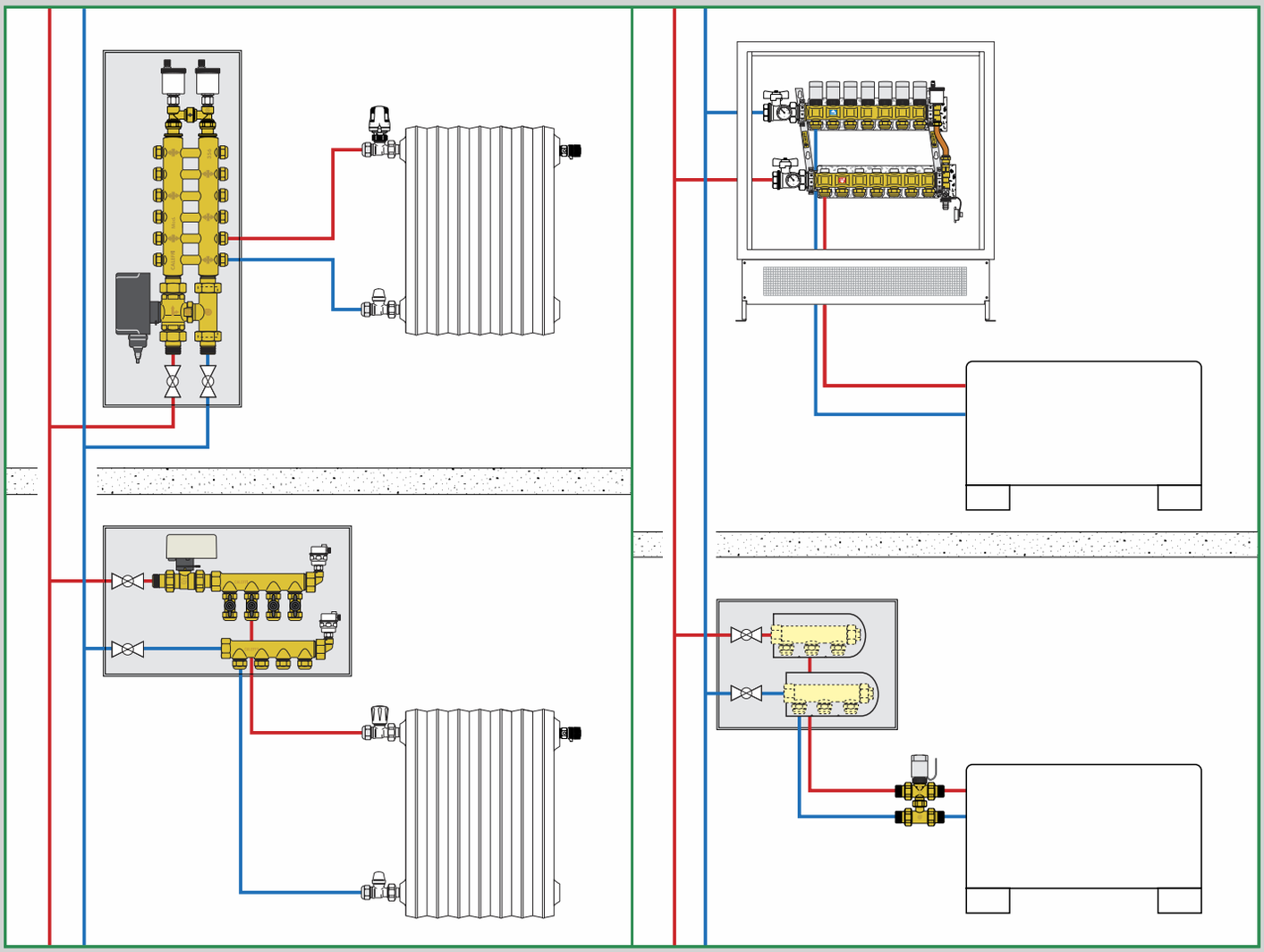
3015

Angled single valve for panel radiators
with built-in thermostatic valve unit
(wall connections)
with 3/4" M radiator connections.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Radiator connection	Pipe connection		
301550	3/4" F	3/4"	1	50

DISTRIBUTION MANIFOLDS, ZONE VALVES, BOXES AND ACCESSORIES

This diagram is just an indication



Inspection wall boxes
Motorised ball zone valves
Thermo-electric zone piston valves
Motorised valves with spring return
Motorised ball valves
Motorised valves for central heating systems
Motorised butterfly valves
Simple and dual distribution manifolds
Simple distribution manifolds for air conditioning systems
Distribution manifolds with shut-off and pre-regulating valves
Thermo-electric actuators
Accessories and fittings for distribution manifolds

PLASTIC INSPECTION WALL BOXES

361

Plastic inspection wall port,
with zinc plated sheet steel frame.
White colour RAL 9010.

Code	Dim. (h x w)		
361032	320 x 250	1	5
361050	500 x 250	1	10

360

Plastic inspection wall box.
For distribution manifolds 349, 350, 592 and 354 series.
Version with foldable side walls.
White colour RAL 9010.

Code	Dim. (h x w x d)		
360032	320 x 250 x 90	1	10
360050	500 x 250 x 90	1	10

363

tech. broch. 01091

Inspection wall port and frame in plastic.
Ventilated.
White colour RAL 9010.

Code	Dim. (h x w)		
363036	360 x 270	1	10
363056	560 x 330	1	5
363073	730 x 360	1	5

362

tech. broch. 01091

Plastic inspection wall box.
For dual distribution manifolds 356, 357 series and single distribution manifolds 349, 350, 592 and 354 series.
Ventilated.
Equipped with lateral protections.
Adjustable depth from 100 to 80 mm.
White colour RAL 9010.

Code	Dim. (h x w x d)		
362036	360 x 270 x 100/80	1	10
362056	560 x 330 x 100/80	1	5
362073	730 x 360 x 100/80	1	5

360

tech. broch. 01091

Pair of mounting brackets for 3/4" and 1" dual distribution manifolds 356, 356 IS and 357 series.
For plastic inspection boxes 360 and 362 series.

Code		
360003	1	–

360

Pair of stainless steel mounting brackets for distribution manifolds 354 series.
For plastic inspection boxes 360 and 362 series.

Code		
360210	1	10

360

tech. broch. 01091

Mounting brackets for 1" single distribution manifolds 350 and 592 series,
for 3/4" and 1" distribution manifolds 351 and 598 series.
For plastic inspection boxes 360 and 362 series.
In package:
– N. 2 long brackets
– N. 2 short brackets.

Code		
360001	1	10

360

tech. broch. 01091

Mounting brackets for 3/4" single distribution manifolds 349, 350 and 592 series.
For plastic inspection boxes 360 and 362 series.
In package:
– N. 2 long brackets
– N. 2 short brackets.

Code		
360002	1	10

362

tech. broch. 01091

Mounting brackets for dual distribution manifolds 356 and 357 series.
For plastic inspection boxes 362 series.

Code		
362001	1	10

SHEET STEEL INSPECTION WALL BOXES

5890

Recessed inspection wall port with frame.
In zinc plated sheet steel.

Code	Dim. (h x w)		
589003	370 x 275	1	10
589005	540 x 275	1	10

5891

Recessed inspection wall box with frame.
For dual distribution manifolds 356 series.
In zinc plated sheet steel.
Adjustable depth 70, 90 or 110 mm.
Supplied with manifold mounting bracket.

Code	Dim. (h x w x d)		
589103	370 x 275 x 70/90/110	1	3
589105	540 x 275 x 70/90/110	1	3

659

tech. broch. 01144

Inspection wall box for distribution manifolds 349, 350, 592, 662, 663, 671 and 668...S1 series.
Wall or floor installations (with 660 series).
Closure with a push-fit clamp.
In painted sheet steel.
Adjustable depth from 110 to 140 mm.

Code	Dim. (h x w x d)		
659044	500 x 400 x 110–140	1	–
659064	500 x 600 x 110–140	1	–
659084	500 x 800 x 110–140	1	–
659104	500 x 1000 x 110–140	1	–
659124	500 x 1200 x 110–140	1	–

659

tech. broch. 01144

Inspection wall port with frame.
In painted sheet steel.

Code			
659504	for 659045	1	–
659506	for 659065	1	–
659508	for 659085	1	–
659510	for 659105	1	–

659

tech. broch. 01144

Inspection wall box for distribution manifolds 349, 350, 592, 662 and 671 series.
Complete with specific support for manifold brackets.
Closure with a push-fit clamp.
In painted sheet steel.
Adjustable depth from 80 to 120 mm.

Code	Dim. (h x w x d)		
659045	500 x 400 x 80–120	1	–
659065	500 x 600 x 80–120	1	–
659085	500 x 800 x 80–120	1	–
659105	500 x 1000 x 80–120	1	–

659

tech. broch. 01144

Inspection wall port with frame.
In painted sheet steel.

Code			
659304	for 659044	1	–
659306	for 659064	1	–
659308	for 659084	1	–
659310	for 659104	1	–
659312	for 659124	1	–

658

Pair of mounting brackets for distribution manifolds 592, 350 and 351 series.
With insulating clamps, screws and wall anchors.
To be used with boxes 659 series or directly wall mounted.

Code			
658000		1	20

658

Pair of mounting brackets for distribution manifolds 663 and 668...S1 series.
With screws and wall anchors.
To be used with boxes 659 series or directly wall mounted.

Code			
658100		1	20

658

Pair of mounting brackets for 3/4" and 1" distribution manifolds 350 and 592 series.
With clamps and screws.
To connect manifolds to zone valves.
To be used with boxes 659 series.

Code			
658200		1	–

MOTORISED BALL ZONE VALVES

6460

tech. broch. 01015

Actuator for ball zone valves 6470, 6480 and 6489 series.
Supply: 230 V (ac) or 24 V (ac).
With auxiliary microswitch.
Power consumption: 4 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V) - 1,3 A (24 V).
Operating time: 50 s.
Max. ambient temperature: 55°C.
Protection class: IP 43.

Code	Supply voltage V		
646002	230 (±20%)	1	10
646004	24 (±10%)	1	10

6470

tech. broch. 01015

Two-way ball zone valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.
New O-Ring seal.

Code		Kv (m³/h)		
647040	1/2″	17,00	1	10
647050	3/4″	17,27	1	10
647060	1″	36,58	1	5
647070	1 1/4″	39,50	1	5

6480

tech. broch. 01015

Three-way ball zone valve.
3/4″ F by-pass connection.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.
New O-Ring seal.

Code		Kv (m³/h) straight	Kv (m³/h) by-pass		
648040	1/2″	14,10	2,45	1	10
648050	3/4″	14,43	2,50	1	10
648060	1″	33,52	3,60	1	5
648070	1 1/4″	36,00	3,80	1	5

6489

tech. broch. 01015

Three-way ball zone valve with by-pass tee.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.
Tee complete with nozzle U6.
Adjustable outlet centre distance from 49 to 63 mm.
New O-Ring seal.

Code		Kv (m³/h) straight	Kv (m³/h) by-pass		
648950	3/4″	14,43	1,20	1	10

6490

tech. broch. 01015

Balanced by-pass tee.
For ball zone valves 6480 series.
Max. working pressure: 10 bar.
Temperature range: -5–110°C.
New O-Ring seal.

Code			Kv (m³/h) tee + valve in by-pass		
649040	1/2″	without nozzle	2,20	1	10
649044	1/2″	U4	0,78	1	10
649046	1/2″	U6	1,16	1	10
649048	1/2″	U8	1,40	1	10
649050	3/4″	without nozzle	2,25	1	10
649054	3/4″	U4	0,87	1	10
649056	3/4″	U6	1,20	1	10
649058	3/4″	U8	1,50	1	10
649060	1″	without nozzle	3,25	1	5
649064	1″	U4	1,90	1	5
649066	1″	U6	2,50	1	5
649068	1″	U8	3,25	1	5
649070	1 1/4″	without nozzle	3,40	1	5

6480

tech. broch. 01015

Pair of off-centre fittings for connecting zone valves unit 6480, 633 series and respective by-pass tee 6490, 635 series to any dual manifold with outlet centre distance between 50 and 70 mm.

Code			
648005	3/4″	1	–
648006	1″	1	–

6480

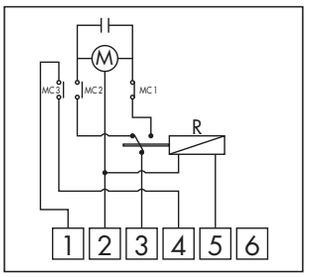
tech. broch. 01015

Off-centre kit connecting to the zone valves unit 6480, 6453, 633 series and respective by-pass tee 6490, 6459, 635 series, for installation in manifold box 659 and 661 series and connection to distribution manifolds 349, 350, 592 and 668...S1 series.
Max. working pressure: 10 bar.
Temperature range: -5–110°C.

Code			
648018	1	10	

Wiring diagram for 6460 series, two point actuator with internal relais, valve in closed position

- R relay
- MC1 opening end microswitch.
- MC2 closing end microswitch.
- MC3 free auxiliary microswitch. With the valve open, the free microswitch contacts are closed.



MOTORISED BALL ZONE VALVES FOR AIR-CONDITIONING SYSTEMS

6452

tech. broch. 01199

Motorised two-way ball zone valve,
for air-conditioning systems.
With manual opening lever.
With insulation.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.

With auxiliary microswitch.
Supply: 230 V (ac) o 24 V (ac).
Power consumption: 6 VA.
Auxiliary microswitch contact rating:
6 (2) A (230 V).
Ambient temperature range: -10–55°C.
Protection class: IP 65.
Operating time: 50 s (90° rotation).
Lenght of supply cable: 80 cm.

Code		Supply voltage V	Kv (m³/h)		
64542	1/2″	230	17,00	1	–
64552	3/4″	230	17,27	1	–
64562	1″	230	36,58	1	–
64572	1 1/4″	230	39,50	1	–
64544	1/2″	24	17,00	1	–
64554	3/4″	24	17,27	1	–
64564	1″	24	36,58	1	–
64574	1 1/4″	24	39,50	1	–

6453

tech. broch. 01199

Motorised three-way ball zone valve,
for air-conditioning systems.
With manual opening lever.
With insulation.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.

With auxiliary microswitch.
Supply: 230 V (ac) o 24 V (ac).
Power consumption: 6 VA.
Auxiliary microswitch contact rating:
6 (2) A (230 V).
Ambient temperature range: -10–55°C.
Protection class: IP 65.
Operating time: 50 s (90° rotation).
Lenght of supply cable: 80 cm.

Code		Supply voltage V	Kv (m³/h) straight	Kv (m³/h) by-pass		
645342	1/2″	230	14,10	2,45	1	–
645352	3/4″	230	14,43	2,50	1	–
645362	1″	230	33,52	3,60	1	–
645372	1 1/4″	230	36,00	3,80	1	–
645344	1/2″	24	14,10	2,45	1	–
645354	3/4″	24	14,43	2,50	1	–
645364	1″	24	33,52	3,60	1	–
645374	1 1/4″	24	36,00	3,80	1	–

6459

tech. broch. 01199

By-pass tee.
For motorised ball zone valves
6453 series.
With insulation.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.

Code			Kv (m³/h) tee + valve in by-pass		
645940	1/2″	without nozzle	2,20	1	–
645950	3/4″	without nozzle	2,25	1	–
645960	1″	without nozzle	3,25	1	–
645970	1 1/4″	without nozzle	3,40	1	–

6450

tech. broch. 01199

Spare actuator for motorised ball zone
valves 6452 and 6453 series.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
645002	230	1	10
645004	24	1	10

6459

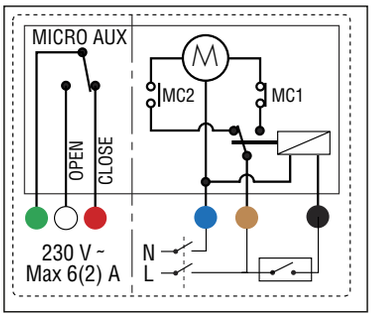
tech. broch. 01199

Shell insulation
for motorised ball zone valves
6453 series with by-pass tee 6459
and 6490 series.
Fitted for manifolds 356... IS series.

Code			
645901	1/2″ - 3/4″	1	–
645900	1″ - 1 1/4″	1	–

Wiring diagram for 6452 and 6453 series valves, two point actuator with internal relais, valve in closed position

- R relay
- MC1 opening end microswitch.
- MC2 closing end microswitch.
- MICRO AUX free auxiliary microswitch.



MOTORISED BALL ZONE VALVES

6442

tech. broch. 01131

Motorised two-way ball zone valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Equipped with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 4 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem), IP 40 (horizontal stem).
Operating time: 40 s (90° rotation).
Lenght of supply cable: 100 cm.

Code		Supply voltage V	Kv (m³/h)		
644242	1/2″	230	11,1	1	10
644252	3/4″	230	11,1	1	10
644262	1″	230	11,1	1	10
644244	1/2″	24	11,1	1	10
644254	3/4″	24	11,1	1	10
644264	1″	24	11,1	1	10

6443.. 3BY

tech. broch. 01131

Motorised three-way ball zone valve, by-pass version.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Equipped with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 4 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem), IP 40 (horizontal stem).
Operating time: 40 s (90° rotation).
Lenght of supply cable: 100 cm.

Code		Supply voltage V	Kv (m³/h) straight	Kv (m³/h) by-pass		
644342 3BY	1/2″	230	10,3	1,8	1	5
644352 3BY	3/4″	230	10,3	1,8	1	5
644362 3BY	1″	230	10,3	1,8	1	5
644344 3BY	1/2″	24	10,3	1,8	1	5
644354 3BY	3/4″	24	10,3	1,8	1	5
644364 3BY	1″	24	10,3	1,8	1	5

6444

tech. broch. 01131

Motorised three-way ball zone valve with telescopic by-pass tee.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.
Tee complete with nozzle U6.
Adjustable outlet centre distance from 49 to 63 mm.

Equipped with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 4 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem), IP 40 (horizontal stem).
Operating time: 40 s (90° rotation).
Lenght of supply cable: 100 cm.

Code		Supply voltage V	Kv (m³/h) straight	Kv (m³/h) by-pass		
644442	1/2″	230	10,3	1,2	1	5
644452	3/4″	230	10,3	1,2	1	5
644462	1″	230	10,3	1,2	1	5
644444	1/2″	24	10,3	1,2	1	5
644454	3/4″	24	10,3	1,2	1	5
644464	1″	24	10,3	1,2	1	5

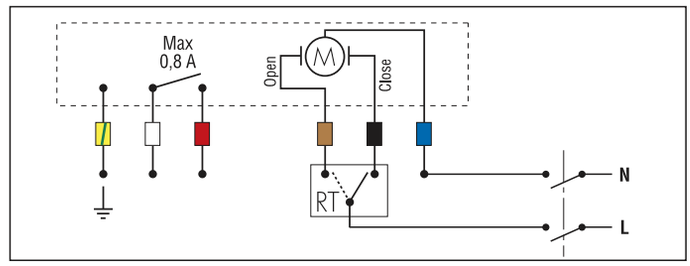
6440

tech. broch. 01131

3-contact control spare actuator for motorised ball zone valves 6442, 6443..3BY and 6444 series.
Operting time 40 s.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
644002	230	1	10
644004	24	1	10

Wiring diagram for valves 6442 - 6443..3BY - 6444 series with 3-contact actuator



THERMO-ELECTRIC PISTON ZONE VALVES

632

tech. broch. 01039

Two-way piston zone valve.
Max. working pressure: 10 bar.
Max. Δp: 1 bar.
Temperature range: -5–95°C.

Code		Kv (m³/h)		
632400	1/2″	5,10	1	5
632500	3/4″	6,27	1	5
632600	1″	6,38	1	5

633

tech. broch. 01039

Three-way piston zone valve.
3/4″ F by-pass connection.
Max. working pressure: 10 bar.
Max. Δp: 1 bar.
Temperature range: -5–95°C.

Code		Kv (m³/h) straight	Kv (m³/h) by-pass		
633400	1/2″	4,99	4,33	1	5
633500	3/4″	6,19	4,91	1	5
633600	1″	6,45	5,30	1	5

635

tech. broch. 01039

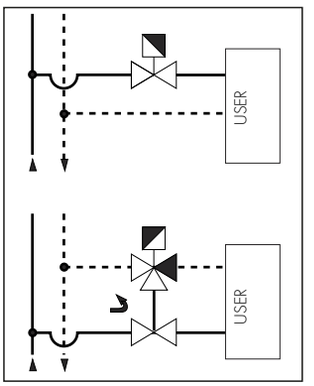
Balanced by-pass tee.
For zone valves 633 series.
Max. working pressure: 10 bar.
Max. Δp: 1 bar.
Temperature range: -5–95°C.

Code			Kv (m³/h) tee + valve in by-pass		
635440	1/2″	U4	0,96	1	5
635460	1/2″	U6	1,32	1	5
635480	1/2″	U8	1,73	1	5
635540	3/4″	U4	0,98	1	5
635560	3/4″	U6	1,36	1	5
635580	3/4″	U8	1,79	1	5
635640	1″	U4	1,02	1	5
635660	1″	U6	1,43	1	5
635680	1″	U8	1,88	1	5

Installation

1. The 2-way zone valve 632 series should be installed on the circuit flow pipe.
   The 2-way valve cannot be converted into 3-way valve by removing the plug.

2. The 3-way zone valve 633 series should bealways installed on the circuit return pipe.
   The 3-way valve cannot be converted into 2-way valve by applying a plug.



630

tech. broch. 01039

Thermo-electric actuator.
For zone valves 632 and 633 series.
Normally closed.
Supply: 230 V (ac) or 24 V (ac).
With auxiliary microswitch.
Power consumption: - starting 11 W.
- operating 4 W.
Auxiliary microswitch contact rating:
6 (3) A (230 V).
Max. ambient temperature: 55°C.
Protection class:
IP 44 (vertical stem),
IP 42 (horizontal stem).

Code	Supply voltage V			
630012	230		1	10
630014	24		1	10
630002	230	without auxiliary microswitch	1	10
630004	24	without auxiliary microswitch	1	10

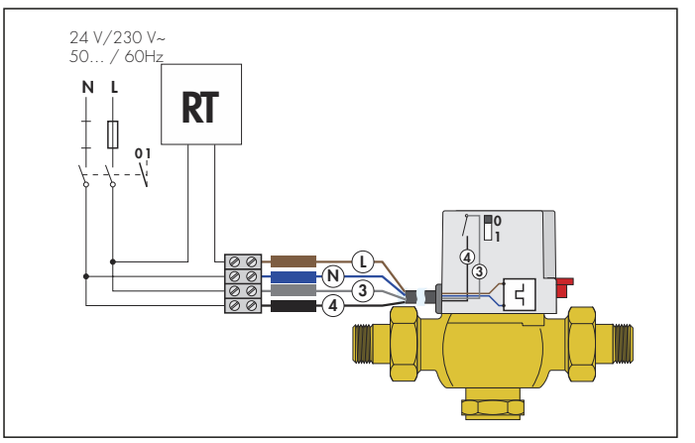
630

tech. broch. 01039

Thermo-electric actuator.
For zone valves 632 and 633 series.
Normally closed.
Supply: 230 V (ac) or 24 V (ac).
With manual actuator and auxiliary microswitch.
Power consumption: - starting 11 W.
- operating 4 W.
Auxiliary microswitch contact rating:
6 (3) A (230 V).
Max. ambient temperature: 55°C.
Protection class: IP 20.

Code	Supply voltage V			
630112	230		1	10
630114	24		1	10
630102	230	without auxiliary microswitch	1	10
630104	24	without auxiliary microswitch	1	10

Wiring diagram for piston zone valves 632 and 633 series with thermo-electric actuator



THERMO-ELECTRIC PISTON ZONE VALVES

676

tech. broch. 01072

Two-way zone valve.
Fitted for thermo-electric actuators 6563, 6561, 6562 and 6564 series.
Max. working pressure: 10 bar.
Max. Δp: 1,2 bar.
Temperature range: 0–95°C.

Code		Kv (m³/h)		
676040	1/2″	3,7	1	10
676050	3/4″	3,7	1	10
676060	1″	3,7	1	10

677

tech. broch. 01072

Three-way zone valve.
Fitted for thermo-electric actuators 6563, 6561, 6562 and 6564 series.
Max. working pressure: 10 bar.
Max. Δp: 1,2 bar.
Temperature range: 0–95°C.

Code		Kv (m³/h) straight	Kv (m³/h) by-pass		
677040	1/2″	3,7	1,0	1	10
677050	3/4″	3,7	1,0	1	10
677060	1″	3,7	1,0	1	10

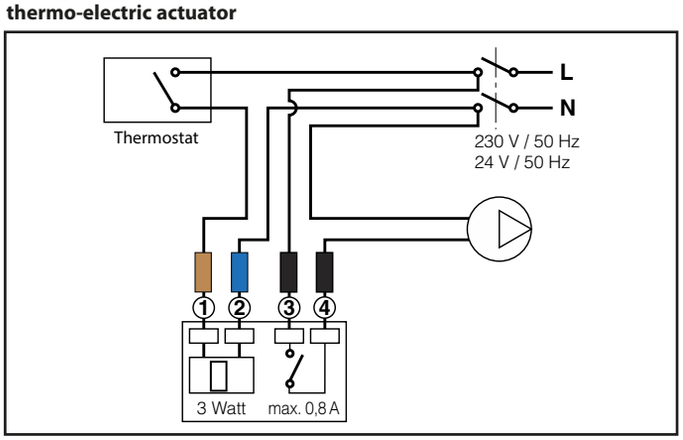
678

tech. broch. 01072

Three-way zone valve
with by-pass tee.
Fitted for thermo-electric actuators 6563, 6561, 6562 and 6564 series.
Max. working pressure: 10 bar.
Max. Δp: 1,2 bar.
Temperature range: 0–95°C.
Tee complete with nozzle U6.
Adjustable outlet centre distance from 49 to 63 mm.

Code		Kv (m³/h) straight	Kv (m³/h) by-pass		
678040	1/2″	3,7	1,0	1	10
678050	3/4″	3,7	1,0	1	10
678060	1″	3,7	1,0	1	10

Wiring diagram for piston zone valves 676, 677 and 678 series with thermo-electric actuator



6563

tech. broch. 01142

Thermo-electric actuator.
With manual opening and position indicator.
Normally closed. **With auxiliary microswitch**.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–50°C.
Protection class: IP 40.

Code	Supply voltage V			
656312	230		1	10
656314	24		1	10
656302	230	without auxiliary microswitch	1	10
656304	24	without auxiliary microswitch	1	10

6561

tech. broch. 01042

Thermo-electric actuator.
Normally closed. **With auxiliary microswitch**.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 44 (vertical stem).

Code	Supply voltage V			
656112	230		1	10
656114	24		1	10
656102	230	without auxiliary microswitch	1	10
656104	24	without auxiliary microswitch	1	10

6562

tech. broch. 01198

Thermo-electric actuator.
With opening position indicator.
Quick-coupling installation, with a clip adapter.
Normally closed. **With auxiliary microswitch**.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 54.

Code	Supply voltage V			
656212	230		1	10
656214	24		1	10
656202	230	without auxiliary microswitch	1	10
656204	24	without auxiliary microswitch	1	10

6564

tech. broch. 01198

Thermo-electric actuator with low power consumption. With opening position indicator.
Quick-coupling installation, with a clip adapter.
Normally closed. **With auxiliary microswitch**.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 250 mA.
Ambient temperature range: 0–50°C.
Protection class: IP 54.

Code	Supply voltage V			
656412	230		1	10
656414	24		1	10
656402	230	without auxiliary microswitch	1	10
656404	24	without auxiliary microswitch	1	10

MOTORISED ZONE VALVES

642 Z-one™

tech. broch. 01115

Motorised two-way zone valve.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac).
Power consumption: 6,5 W; 7 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Opening time: 70–75 s.
Closing time: 5–7 s.
Protection class: IP 20.
Max. ambient temperature: 40°C.
Max. working pressure: 16 bar.
Temperature range: 0–90°C.
Cable length: 95 cm.

Code		Kv (m³/h)	Max. Δp (bar)		
642042	1/2″	2,5	2,10	1	10
642052	3/4″	4,5	1,50	1	10
642062	1″	6	1,00	1	10

643 Z-one™

tech. broch. 01115

Motorised three-way zone valve.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac).
Power consumption: 6,5 W; 7 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Opening time: 70–75 s.
Closing time: 5–7 s.
Protection class: IP 20.
Max. ambient temperature: 40°C.
Max. working pressure: 16 bar.
Temperature range: 0–90°C.
Cable length: 95 cm.

Code		Kv (m³/h)	Δp max (bar)		
643042	1/2″	2,5	2,10	1	10
643052	3/4″	4,5	1,50	1	10
643062	1″	6	1,00	1	10

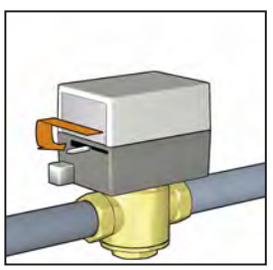
641

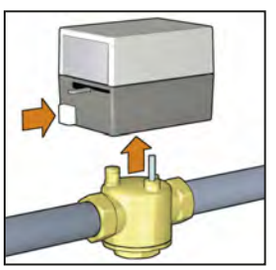
tech. broch. 01115

Spare actuator for motorised zone valves 642 and 643 series.
Supply: 230 V (ac).

Code		
641002	1	–

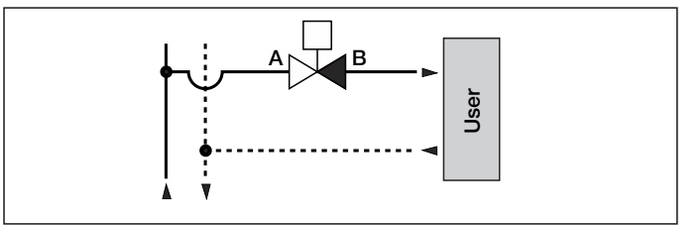
Removable actuator



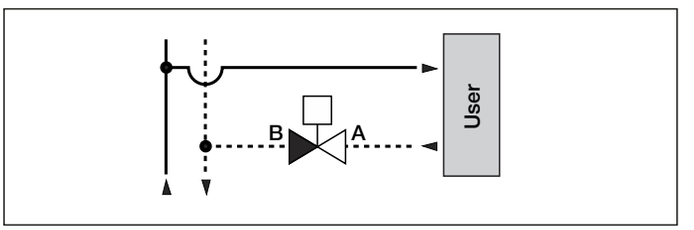


Installation
The 3-way valve cannot be converted into 2-way valve and viceversa.

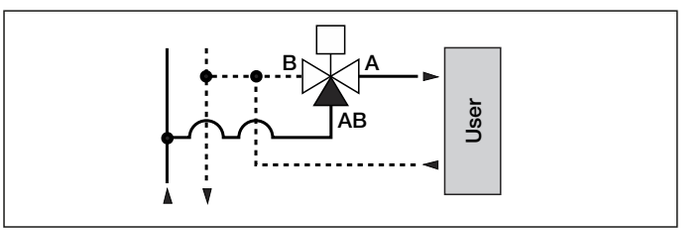
2-way valve installed on the flow



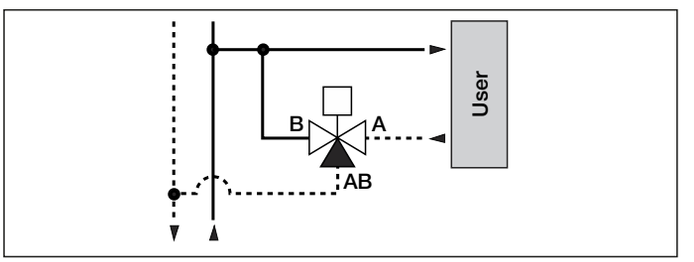
2-way valve installed on the return



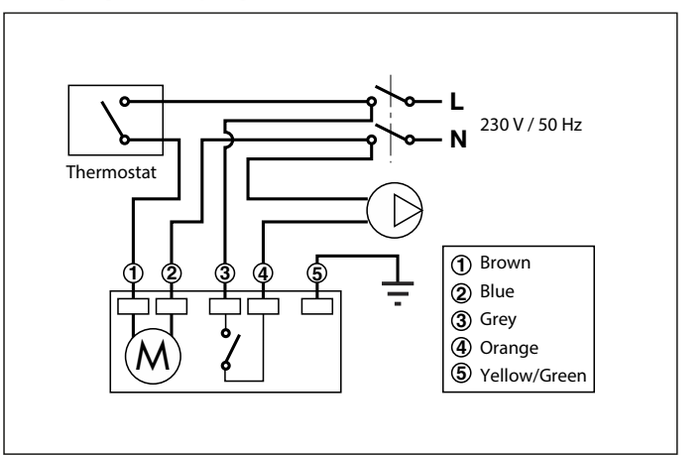
3-way valve installed on the flow with diverting position and ON/OFF use mode



3-way valve installed on the return with mixing position and ON/OFF use mode



Wiring diagram for spring return valves 642 and 643 series



MOTORISED TWO-WAY BALL VALVES

Operating time 10 s

6442

tech. broch. 01131

Motorised two-way ball valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Equipped with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 8 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem).
IP 40 (horizontal stem).
Operating time: **10 s (rotation 90°)**.
Cable length: 100 cm.

Code		Supply voltage V	Kv (m³/h)		
644246	1/2″	230	11,1	1	10
644256	3/4″	230	11,1	1	10
644248	1/2″	24	11,1	1	10
644258	3/4″	24	11,1	1	10

6440

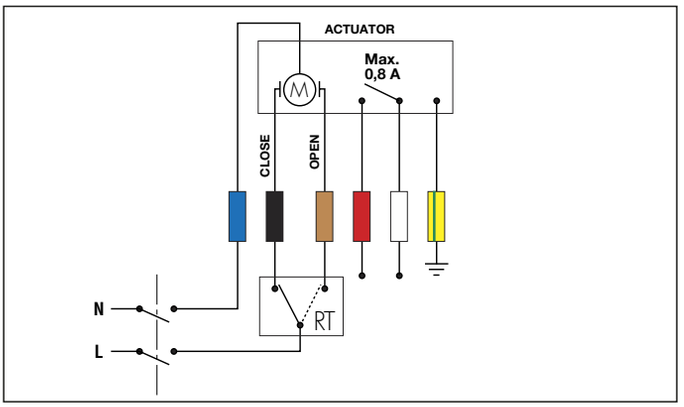
tech. broch. 01132

3-contact control spare actuator for motorised ball zone valves 6442 series.
Operating time 10 s.
Supply: 230 V (ac) or 24 V (ac).

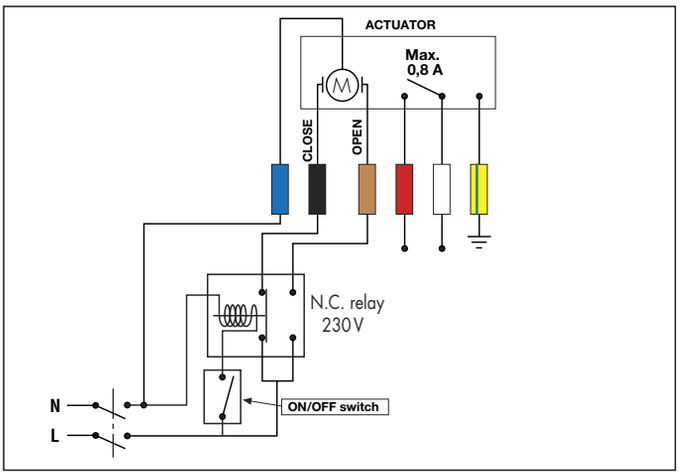
Code	Supply voltage V		
644012	230	1	10
644014	24	1	10

Wiring diagram for valves 6442 and 6443 series, with 3-contact actuator

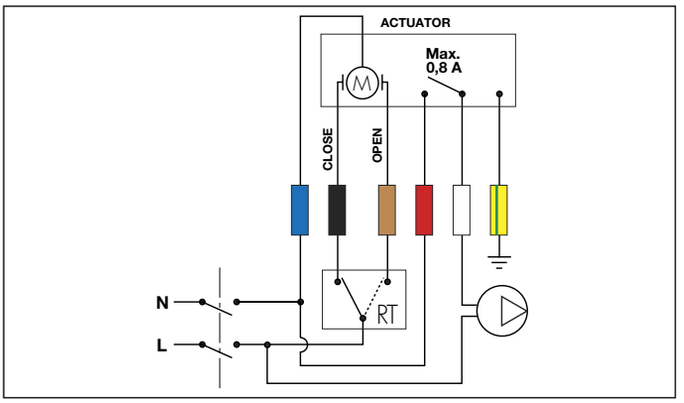
Connection diagram for room thermostat (RT) and electric supply.
The illustrated connection makes it possible to open and close the valve according to the signal provided by the 3-contact room thermostat.



Connection diagram - with ON-OFFf switch device
The illustrated connection makes it possible to open and close the valve when the switch allows, using an intermediate relay device.



Pump disconnection diagram when no zone is in operation.
This diagram, using the auxiliary microswitch, allows the pump to be deactivated when the diverter valve used as a zone valve is closed.
If the pump has a power consumption level over 0,8 A (170 VA), an intermediate contactor must be used.



MOTORISED THREE-WAY BALL DIVERTER VALVES

Operating time 10 s

6443

tech. broch. 01132

Motorised three-way diverter valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Equipped with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 8 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem).
IP 40 (horizontal stem).
Operating time: **10 s (rotation 90°)**.
Cable length: 100 cm.

Code		Supply voltage V	Kv (m³/h)		
644346	1/2″	230	3,9	1	5
644356	3/4″	230	3,9	1	5
644357	3/4″	230	8,6	1	5
644366	1″	230	9,0	1	5
644348	1/2″	24	3,9	1	5
644358	3/4″	24	3,9	1	5
644359	3/4″	24	8,6	1	5
644368	1″	24	9,0	1	5

6440

tech. broch. 01132

3-contact control spare actuator for motorised ball zone valves 6443 series.
Operating time 10 s.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
644012	230	1	10
644014	24	1	10

Operating time 40 s

6443

tech. broch. 01132

Motorised three-way diverter valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Equipped with actuator with 3-contact control. **With auxiliary microswitch**.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 4 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem).
IP 40 (horizontal stem).
Operating time: **40 s (90° rotation)**.
Cable lenght: 100 cm.

Code		Supply voltage V	Kv (m³/h)		
644342	1/2″	230	3,9	1	5
644352	3/4″	230	3,9	1	5
644353	3/4″	230	8,6	1	5
644362	1″	230	9,0	1	5
644344	1/2″	24	3,9	1	5
644354	3/4″	24	3,9	1	5
644355	3/4″	24	8,6	1	5
644364	1″	24	9,0	1	5

6440

tech. broch. 01132

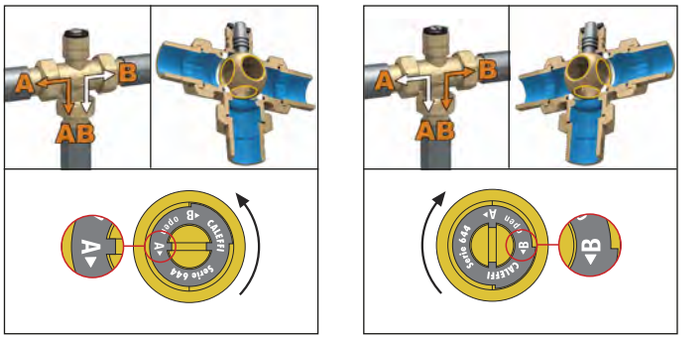
3-contact control spare actuator for motorised ball zone valve 6443 series.
Operating time 40 s.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
644002	230	1	10
644004	24	1	10

Applications

Diverter	Mixing
1 inlet - 2 outlets	**2 inlets - 1 outlet**

Operating diagram for 6443 series valve
Operating time 10 s and 40 s - with "T" drilling



MOTORISED TWO-WAY BALL VALVES FOR HIGH FLOW RATES

638

tech. broch. 01196

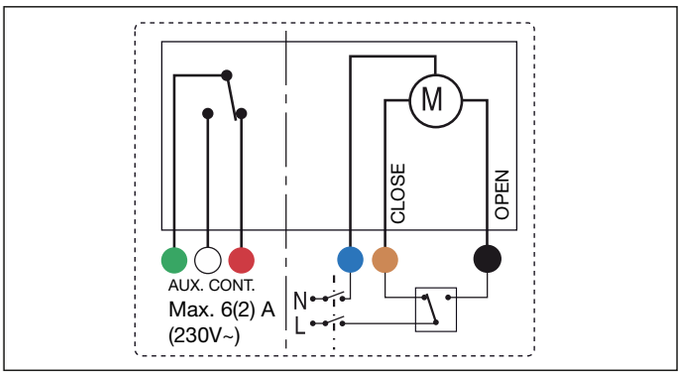
Motorised two-way ball valve.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.
Ambient temperature range: -10–55°C.
Power consumption: 6 VA.
Auxiliary microswitch contact rating:
6 (2) A - 230 V (ac).
Protection class: IP 65.
Operating time: 50 s (90° rotation).

Code		Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
638052	3/4"	15	230	17	1	–
638062	1"	15	230	36,5	1	–
638072	1 1/4"	15	230	48	1	–
638082	1 1/2"	15	230	77	1	–
638092	2"	15	230	140	1	–
638054	3/4"	15	24	17	1	–
638064	1"	15	24	36,5	1	–
638074	1 1/4"	15	24	48	1	–
638084	1 1/2"	15	24	77	1	–
638094	2"	15	24	140	1	–

Spare actuators for motorised two-way valves 638 series.
90° rotation.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
638012	230	1	–
638014	24	1	–

Wiring diagram for two-way and three-way ball valves 638 series with 3-contact actuator
Internal diagram with valve in the following position:
- Closed, for two-way valve.
- Port **A** closed for three-way valves.



Insulation kit
for heating and air conditioning systems.
Medium temperature range: -10–110°C.
For motorised two-way ball valves 638 series.

Code	Use		
CBN638052	3/4"	1	–
CBN638062	1"	1	–
CBN638072	1 1/4"	1	–
CBN638082	1 1/2"-2"	1	–

Insulation kit
for heating and air conditioning systems.
Medium temperature range: -10–110°C.
For motorised three-way ball valves 638 series.

Code	Use			
CBN638053	3/4"	with "L" drilling	1	–
CBN638063	1"	with "L" drilling	1	–
CBN638073	1 1/4"	with "L" drilling	1	–
CBN638083	1 1/2"-2"	with "L" drilling	1	–
CBN638153	3/4"	with "T" drilling	1	–
CBN638163	1"	with "T" drilling	1	–
CBN638173	1 1/4"	with "T" drilling	1	–
CBN638183	1 1/2"-2"	with "T" drilling	1	–

MOTORISED THREE-WAY BALL VALVES FOR HIGH FLOW RATES

638

tech. broch. 01196

Motorised three-way ball valve.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.
Ambient temperature range: -10–55°C.
Power consumption: 6 VA.
Auxiliary microswitch contact rating:
6 (2) A - 230 V (ac).
Protection class: IP 65.
Operating time: 50 s (90° rotation).
With "T" drilling. Reduced bore.

Code		Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
638153	3/4"	15	230	9,5	1	–
638163	1"	15	230	12,9	1	–
638173	1 1/4"	15	230	24,7	1	–
638183	1 1/2"	15	230	47	1	–
638193	2"	15	230	50	1	–
638155	3/4"	15	24	9,5	1	–
638165	1"	15	24	12,9	1	–
638175	1 1/4"	15	24	24,7	1	–
638185	1 1/2"	15	24	47	1	–
638195	2"	15	24	50	1	–

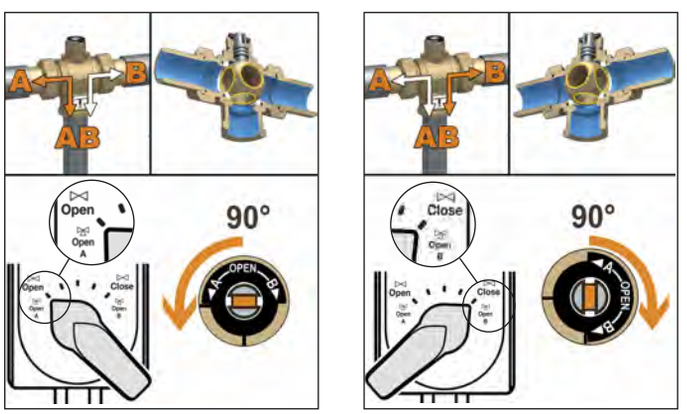
Spare actuators for
motorised three-way valves 638 series.
With "T" drilling. 90° rotation.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
638012	230	1	–
638014	24	1	–

Applications

Diverter	Mixing
1 inlet - 2 outlets	**2 inlets - 1 outlet**

Operating diagram of valves 638 series - "T" drilling



638

tech. broch. 01196

Motorised three-way ball valve.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. Δp: 10 bar.
Temperature range: -10–110°C.
Ambient temperature range: -10–55°C.
Power consumption: 6 VA.
Auxiliary microswitch contact rating:
6 (2) A - 230 V (ac).
Protection class: IP 65.
Operating time: 100 s (180° rotation).
With "L" drilling. Reduced bore.

Code		Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
638053	3/4"	15	230	9,9	1	–
638063	1"	15	230	13,4	1	–
638073	1 1/4"	15	230	22,8	1	–
638083	1 1/2"	15	230	44	1	–
638093	2"	15	230	50	1	–
638055	3/4"	15	24	9,9	1	–
638065	1"	15	24	13,4	1	–
638075	1 1/4"	15	24	22,8	1	–
638085	1 1/2"	15	24	44	1	–
638095	2"	15	24	50	1	–

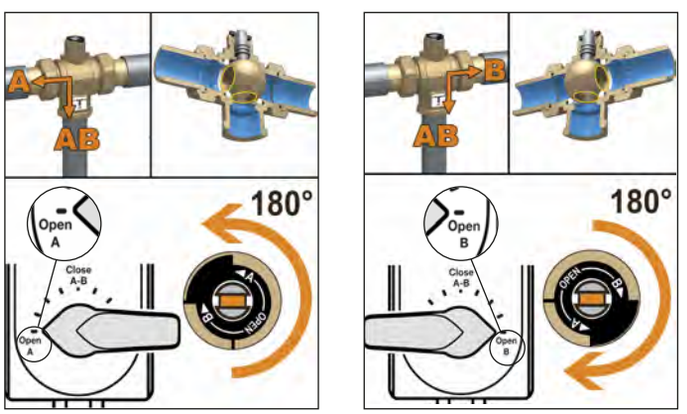
Spare actuators for
motorised three-way valves 638 series.
With "L" drilling. 180° rotation.
Supply: 230 V (ac) or 24 V (ac).

Code	Supply voltage V		
638412	230	1	–
638414	24	1	–

Applications

Diverter	Diverter
1 inlet - 2 outlets	**2 inlets - 1 outlet**

Operating diagram of valves 638 series - "L" drilling



MOTORISED VALVES FOR CENTRAL HEATING SYSTEMS

637

Motorised two-way ball valve
with manual opening.
Full bore.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure (static):
2 1/2": 40 bar; 3": 25 bar; 4": 16 bar.
Max. Δp: 6 bar.
Temperature range: -10–95°C.
Max. ambient temperature: 55°C.
Power consumption: 10,5 VA.
Auxiliary microswitch contact rating:
16 (6) A - 250 V (ac) - double switch.
Protection class: IP 65.
Operating time: 180 s (90° rotation).

CE

Code		Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
637202	2 1/2"	120	230	170	1	–
637302	3"	120	230	253	1	–
637402	4"	120	230	450	1	–
637204	2 1/2"	120	24	170	1	–
637304	3"	120	24	253	1	–
637404	4"	120	24	450	1	–

637

Motorised two-way ball valve
with manual opening. Full bore.
Flanged connections PN 16.
To be coupled with
flat counterflanges EN 1092-1.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure (static):
DN 65: 40 bar; DN 80: 25 bar;
DN 100: 16 bar.
Max. Δp: 6 bar.
Temperature range: -10–95°C.
Max. ambient temperature: 55°C.
Power consumption: 10,5 VA.
Auxiliary microswitch contact rating:
16 (6) A - 250 V (ac) - double switch.
Protection class: IP 65.
Operating time: 180 s (90° rotation).

CE

Code		Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
637212	DN 65	120	230	170	1	–
637312	DN 80	120	230	253	1	–
637412	DN 100	120	230	450	1	–
637214	DN 65	120	24	170	1	–
637314	DN 80	120	24	253	1	–
637414	DN 100	120	24	450	1	–

CE

Spare actuators for motorised two-way ball valves 637 series.

Code	Supply voltage V		
637022	230	1	–
637024	24	1	–

636

Motorised three-way piston valve
with manual opening.
Full bore.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. working temperature: 110°C.
Auxiliary microswitch contact rating: 3 A (230 V).
Protection class: IP 44.
Operating time: 90 s.
It converts into a two-way valve by blanking off the central third way.

CE

Code		Max. Δp bar	Supply voltage V	Kv (m³/h)		
636073	1 1/4"	1,2	230	14	1	–
636083	1 1/2"	1	230	19	1	–
636093	2"	0,9	230	25	1	–
636075	1 1/4"	1,2	24	14	1	–
636085	1 1/2"	1	24	19	1	–
636095	2"	0,9	24	25	1	–

CE

Spare actuators for motorised three-way piston valves 636 series.

Code	Supply voltage V		
R69084	230	1	–
R69085	24	1	–

MOTORISED BUTTERFLY VALVE

NEW

639

Motorised butterfly valve, WAFER type.
With manual opening.
Flanged connections PN 16.
To be coupled with
flat counterflanges EN 1092-1.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. Δp: 6 bar.
Valve temperature range: -10÷95°C
Ambient temperature range: -10÷65°C.
Power consumption: 4,5 VA.
Auxiliary microswitch contact rating:
16 (4) A - 250 V (ac).
Protection class: IP 42.
Operating time: 180 s (90° rotation).

CE

639

Motorised butterfly valve, WAFER type.
With manual opening.
Flanged connections PN 16.
To be coupled with
flat counterflanges EN 1092-1.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Max. working pressure: 16 bar.
Max. Δp: 6 bar.
Valve temperature range: -10÷95°C.
Ambient temperature range: -10÷65°C.
Power consumption:10,5 VA.
Auxiliary microswitch contact rating:
16 (6) A - 250 V (ac) - double switch.
Protection class: IP 65.
Operating time: 180 s (90° rotation).

CE

Code		Supply voltage V		
639042	DN 32/40	230	1	–
639052	DN 50	230	1	–
639062	DN 65	230	1	–
639082	DN 80	230	1	–
639044	DN 32/40	24	1	–
639054	DN 50	24	1	–
639064	DN 65	24	1	–
639084	DN 80	24	1	–

Code		Supply voltage V		
639102	DN 100	230	1	–
639122	DN 125	230	1	–
639152	DN 150	230	1	–
639202	DN 200	230	1	–
639104	DN 100	24	1	–
639124	DN 125	24	1	–
639154	DN 150	24	1	–
639204	DN 200	24	1	–

SINGLE DISTRIBUTION MANIFOLDS

349

Modular single distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 35 mm.

Code	Connections	Outlet No.	Outlets		
349020	3/4″	x 2	23 p.1,5 M	5	50
349030	3/4″	x 3	23 p.1,5 M	5	50
349040	3/4″	x 4	23 p.1,5 M	5	50
349050	3/4″	x 5	23 p.1,5 M	5	50

354

Modular single distribution manifold with shut-off valves.
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 35 mm.

Code	Connections	Outlet No.	Outlets		
354052	3/4″	x 2	23 p.1,5 M	5	20
354053	3/4″	x 3	23 p.1,5 M	5	20
354054	3/4″	x 4	23 p.1,5 M	5	20
354055	3/4″	x 5	23 p.1,5 M	5	20

350

Modular single distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 50 mm for 3/4″ and 1″.
Outlet centre distance: 60 mm for 1 1/4″.
PTFE seal on coupling.

Code	Connections	Outlet No.	Outlets		
350520	3/4″	x 2	23 p.1,5 M	2	–
350530	3/4″	x 3	23 p.1,5 M	2	–
350540	3/4″	x 4	23 p.1,5 M	2	–
350620	1″	x 2	23 p.1,5 M	2	–
350630	1″	x 3	23 p.1,5 M	2	–
350640	1″	x 4	23 p.1,5 M	2	–
350720*	1 1/4″	x 2	23 p.1,5 M	2	–
350730*	1 1/4″	x 3	23 p.1,5 M	2	–
350740*	1 1/4″	x 4	23 p.1,5 M	2	–

** Without PTFE seal on coupling*

351

Blind sigle distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
351520	3/4″	x 2	23 p.1,5 M	2	–
351530	3/4″	x 3	23 p.1,5 M	2	–
351540	3/4″	x 4	23 p.1,5 M	2	–
351620	1″	x 2	23 p.1,5 M	2	–
351630	1″	x 3	23 p.1,5 M	2	–
351640	1″	x 4	23 p.1,5 M	2	–

DUAL DISTRIBUTION MANIFOLDS AND FITTINGS

356

tech. broch. 01014

Cast monoblock dual distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Main centre distance: 60 mm.
Outlet centre distance: 40 mm.

Code	Connections	Outlet No.	Outlets		
356502	3/4″	2+2	23 p.1,5 M	1	5
356504	3/4″	4+4	23 p.1,5 M	1	5
356506	3/4″	6+6	23 p.1,5 M	1	5
356508	3/4″	8+8	23 p.1,5 M	1	5
356510	3/4″	10+10	23 p.1,5 M	1	5
356604	1″	4+4	23 p.1,5 M	1	5
356606	1″	6+6	23 p.1,5 M	1	5
356608	1″	8+8	23 p.1,5 M	1	5
356610	1″	10+10	23 p.1,5 M	1	5
356612	1″	12+12	23 p.1,5 M	1	–

356

tech. broch. 01014

Cast monoblock dual distribution manifold.
For heating and air conditioning systems.
With insulation.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.
Main centre distance: 60 mm.
Outlet centre distance: 40 mm.

Code	Connections	Outlet No.	Outlets		
356604 IS	1″	4+4	23 p.1,5 M	1	10
356606 IS	1″	6+6	23 p.1,5 M	1	10
356608 IS	1″	8+8	23 p.1,5 M	1	5
356610 IS	1″	10+10	23 p.1,5 M	1	5

357

tech. broch. 01014

Single sided cast monoblock dual distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Main centre distance: 60 mm.
Outlet centre distance: 40 mm.

Code	Connections	Outlet No.	Outlets		
357502	3/4″	2+2	23 p.1,5 M	1	10
357503	3/4″	3+3	23 p.1,5 M	1	10
357504	3/4″	4+4	23 p.1,5 M	1	5
357505	3/4″	5+5	23 p.1,5 M	1	–
357506	3/4″	6+6	23 p.1,5 M	1	–

356

tech. broch. 01014

Differential by-pass for dual distribution manifolds 356 and 357 series.
3/8″ connection for automatic air vent.
Fixed differential by-pass setting:
20 kPa (2000 mm w.g.).
Max. working pressure: 10 bar.
Temperature range: -10–110°C.

Code			
356050	3/4″ M	1	20

3640

End fitting.
For distribution manifolds 356 and 357 series.

Code			
364050	3/4″ M x 23 p.1,5 M	2	–
364060	1″ M x 23 p.1,5 M	2	–

3641

Plug.
For distribution manifolds 356 and 357 series.

Code				
364150	3/4″ M	**3,54**	2	–
364160	1″ M	**5,23**	2	–

3642

End fitting for air vent connection.
For distribution manifolds 356 and 357 series.

Code			
364253	3/4″ M x 3/8″ F	2	–
364254	3/4″ M x 1/2″ F	2	–
364263	1″ M x 3/8″ F	2	–

SINGLE DISTRIBUTION MANIFOLDS

349

Modular single distribution manifold.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 35 mm.
Outlet male connections.

Code	Connections	Outlet No.	Outlets		
349130	3/4″	x 3	1/2″ M	5	50
349140	3/4″	x 4	1/2″ M	5	50
349150	3/4″	x 5	1/2″ M	5	50

349

Modular single distribution manifold.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 35 mm.
Outlet male connections.
With flat seat.
For press-fittings.

Code	Connections	Outlet No.	Outlets		
349230	3/4″	x 3	1/2″ M - Ø 13	5	50
349240	3/4″	x 4	1/2″ M - Ø 13	5	50
349250	3/4″	x 5	1/2″ M - Ø 13	5	50

349

Modular single distribution manifold.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 35 mm.
Outlet female connections.

Code	Connections	Outlet No.	Outlets		
349330	3/4″	x 3	1/2″ F	5	50
349340	3/4″	x 4	1/2″ F	5	50
349350	3/4″	x 5	1/2″ F	5	50

354

Modular single distribution manifold with shut-off valves.
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 35 mm.
Outlet male connections.
With flat seat.
For press-fittings.

Code	Connections	Outlet No.	Outlets		
354252	3/4″	x 2	1/2″ M - Ø 13	2	30
354253	3/4″	x 3	1/2″ M - Ø 13	2	20
354254	3/4″	x 4	1/2″ M - Ø 13	2	10
354255	3/4″	x 5	1/2″ M - Ø 13	2	10

592

Modular single distribution manifold.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
PTFE seal on coupling.
Outlet male connections.

Code	Connections	Outlet No.	Outlets	Outlet centre distance		
592525	3/4″	x 2	1/2″ M	50	2	–
592535	3/4″	x 3	1/2″ M	50	2	–
592545	3/4″	x 4	1/2″ M	50	2	–
592625	1″	x 2	1/2″ M	50	2	–
592635	1″	x 3	1/2″ M	50	2	–
592645	1″	x 4	1/2″ M	50	2	–
592626	1″	x 2	1/2″ M	60	2	–
592636	1″	x 3	1/2″ M	60	2	–
592646	1″	x 4	1/2″ M	60	2	–
592726*	1 1/4″	x 2	1/2″ M	60	2	–
592736*	1 1/4″	x 3	1/2″ M	60	2	–
592746*	1 1/4″	x 4	1/2″ M	60	2	–
592622	1″	x 2	3/4″ M	60	2	–
592632	1″	x 3	3/4″ M	60	2	–

** Without PTFE on coupling*

592

Modular single distribution manifold.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
PTFE seal on coupling.
Outlet female connections.

Code	Connections	Outlet No.	Outlets	Outlet centre distance		
592527	3/4″	x 2	1/2″ F	50	2	–
592537	3/4″	x 3	1/2″ F	50	2	–
592547	3/4″	x 4	1/2″ F	50	2	–
592627	1″	x 2	1/2″ F	50	2	–
592637	1″	x 3	1/2″ F	50	2	–
592647	1″	x 4	1/2″ F	50	2	–
592628	1″	x 2	1/2″ F	60	2	–
592638	1″	x 3	1/2″ F	60	2	–
592648	1″	x 4	1/2″ F	60	2	–
592728*	1 1/4″	x 2	1/2″ F	60	2	–
592738*	1 1/4″	x 3	1/2″ F	60	2	–
592748*	1 1/4″	x 4	1/2″ F	60	2	–

** Without PTFE on coupling*

SINGLE DISTRIBUTION MANIFOLDS

598

Blind single distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 50 mm.
Outlet male connections.

Code	Connections	Outlet No.	Outlets		
598521	3/4″	x 2	1/2″ M	2	–
598531	3/4″	x 3	1/2″ M	2	–
598541	3/4″	x 4	1/2″ M	2	–
598621	1″	x 2	1/2″ M	2	–
598631	1″	x 3	1/2″ M	2	–
598641	1″	x 4	1/2″ M	2	–

598

Blind single distribution manifold.
For heating and air conditioning systems.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Outlet centre distance: 50 mm.
Outlet female connections.

Code	Connections	Outlet No.	Outlets		
598522	3/4″	x 2	1/2″ F	2	–
598532	3/4″	x 3	1/2″ F	2	–
598542	3/4″	x 4	1/2″ F	2	–
598622	1″	x 2	1/2″ F	2	–
598632	1″	x 3	1/2″ F	2	–
598642	1″	x 4	1/2″ F	2	–

SINGLE DISTRIBUTION MANIFOLDS FOR AIR CONDITIONING SYSTEMS

650

tech. broch. 01067

Modular single distribution manifold.
For air conditioning systems.
With insulation.
Max. working pressure: 10 bar.
Temperature range: -40–95°C.
Outlet centre distance: 60 mm.

Code	Connections	Outlet No.	Outlets		
650722	1 1/4″	x 2	3/4″ M	2	–
650732	1 1/4″	x 3	3/4″ M	2	–
650742	1 1/4″	x 4	3/4″ M	2	–

615

Super-bright glue, to seal the insulation of manifolds 650 series, deaerators 551 DISCAL® series and separator-manifold 559 SEPCOLL series.
Content: 125 g.

Code		
615500	1	–

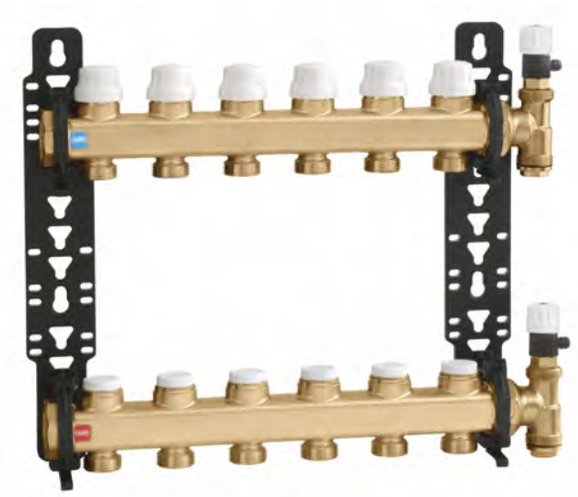
DISTRIBUTION MANIFOLDS WITH SHUT-OFF AND PRE-REGULATING VALVES

662

tech. broch. 01180

Distribution manifold group.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Consisting of:
- return manifold complete with shut-off valves fitted for thermo-electric actuator;
- flow manifold complete with lockshield valves for flow rate pre-regulation;
- end fittings consisting of double radial end fitting, manual air vent and plugs.
- polymer mounting brackets with adjustable centre distance for use with box 659 series or for direct wall fixing.



Code	Connections	Outlet No.	Outlets		
6626B5	1″	x 2	3/4″ M	1	–
6626C5	1″	x 3	3/4″ M	1	–
6626D5	1″	x 4	3/4″ M	1	–
6626E5	1″	x 5	3/4″ M	1	–
6626F5	1″	x 6	3/4″ M	1	–
6626G5	1″	x 7	3/4″ M	1	–
6626H5	1″	x 8	3/4″ M	1	–
6626I5	1″	x 9	3/4″ M	1	–
6626L5	1″	x 10	3/4″ M	1	–
6626M5	1″	x 11	3/4″ M	1	–
6626N5	1″	x 12	3/4″ M	1	–
6626O5	1″	x 13	3/4″ M	1	–

662

tech. broch. 01180

Pair of manifolds equipped with shut-off and lockshield valves for flow rate pre-regulation.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
662625	1″	x 2	3/4″ M	1	–
662635	1″	x 3	3/4″ M	1	–
662645	1″	x 4	3/4″ M	1	–
662655	1″	x 5	3/4″ M	1	–
662665	1″	x 6	3/4″ M	1	–

6620

tech. broch. 01180

Return manifold equipped with shut-off valves, fitted for thermo-electric actuator.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
662025	1″	x 2	3/4″ M	2	–
662035	1″	x 3	3/4″ M	2	–
662045	1″	x 4	3/4″ M	2	–
662055	1″	x 5	3/4″ M	2	–
662065	1″	x 6	3/4″ M	2	–

6621

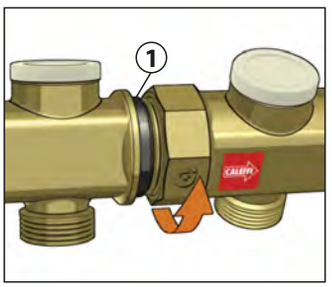
tech. broch. 01180

Flow manifold equipped with lockshield valves for flow rate pre-regulation.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

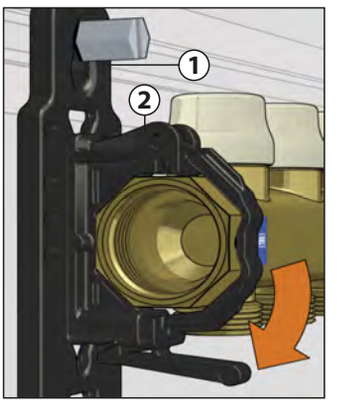
Code	Connections	Outlet No.	Outlets		
662125	1″	x 2	3/4″ M	2	–
662135	1″	x 3	3/4″ M	2	–
662145	1″	x 4	3/4″ M	2	–
662155	1″	x 5	3/4″ M	2	–
662165	1″	x 6	3/4″ M	2	–

DISTRIBUTION MANIFOLDS WITH SHUT-OFF AND PRE-REGULATING VALVES

Modular manifolds
These manifolds are modular thanks to the threaded connections with O-Ring seal (1). The threading is designed to create a perfect hydraulic seal and to correctly align the relevant respective outlets when the components are screwed on and fully tightened.



Bracket and manifold mounting
Manifolds are easily mounted onto the brackets (1) using the modular supports (2) supplied, without anyother mounting accessories.



5996

tech. broch. 01180

End fitting consisting of double radial end fitting, manual air vent and plug.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			
599662	1" F	1	25

662

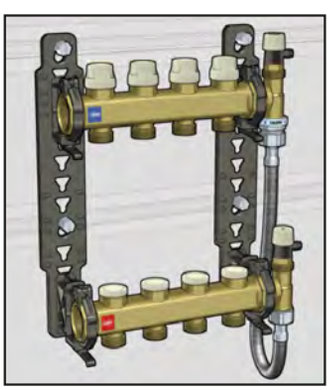
tech. broch. 01180

Fixed setting differential by-pass kit
20 kPa (2000 mm w.g.), with flexible hose.
For distribution manifolds 662 series.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
662000	3/4" F nut x 3/4" F	1	5

Connection example of differential by-pass code 662000 with manifold 662 series

This special by-pass kit consists of a flexible hose which makes installation easier and allows the manifold to be adapted to suit the brackets, according to the actual positions of the system flow and return piping.



658

tech. broch. 01180

Polymer mounting brackets with adjustable centre distance, for distribution manifolds 662 series.
With screws and wall anchors.
To be used with boxes code 659..5
(depth 80–120 mm) or directly wall mounted.

Code		
658401	1	5

Pair of plastic supports
for brackets code 658401.

Code		
F66144	1	–

658

tech. broch. 01180

Polymer mounting brackets with adjustable centre distance, for distribution manifolds 662 series.
With screws and wall anchors.
To be used with boxes code 659..4
(depth 110–140 mm) or directly wall mounted.

Code		
658400	1	5

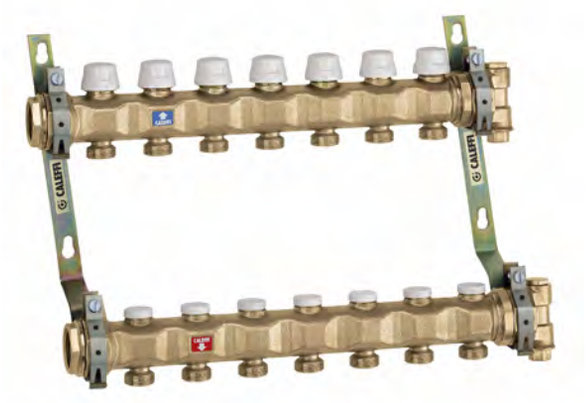
DISTRIBUTION MANIFOLDS WITH SHUT-OFF AND PRE-REGULATING VALVES

663

tech. broch. 01065

Pre-assembled distribution manifold.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Consisting of:
- 1 return distribution manifold complete with shut-off valves fitted for thermo-electric actuator;
- 1 flow distribution manifold complete with lockshield valves for flow rate pre-regulation;
- 2 mounting brackets code 658100;
- 2 reduction fittings 1 1/4" M x 1" F code 364276;
- 2 double radial end fittings code 599473 with plugs.



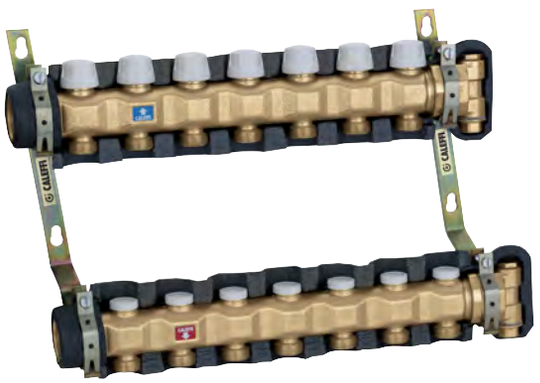
Code	Connections	Outlet No.	Outlets		
6637C5	1 1/4"	x 3	3/4" M	1	–
6637D5	1 1/4"	x 4	3/4" M	1	–
6637E5	1 1/4"	x 5	3/4" M	1	–
6637F5	1 1/4"	x 6	3/4" M	1	–
6637G5	1 1/4"	x 7	3/4" M	1	–
6637H5	1 1/4"	x 8	3/4" M	1	–
6637I5	1 1/4"	x 9	3/4" M	1	–
6637L5	1 1/4"	x 10	3/4" M	1	–
6637M5	1 1/4"	x 11	3/4" M	1	–
6637N5	1 1/4"	x 12	3/4" M	1	–
6637O5	1 1/4"	x 13	3/4" M	1	–

663

tech. broch. 01065

Pre-assembled distribution manifold for air conditioning systems.
With insulation.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Consisting of:
- 1 return distribution manifold complete with shut-off valves fitted for thermo-electric actuator;
- 1 flow distribution manifold complete with lockshield valve for flow rate pre-regulation;
- 2 mounting brackets code 658100;
- 2 reduction fittings 1 1/4" M x 1" F code 364276;
- 2 double radial end fittings code 599473 with plugs.



Code	Connections	Outlet No.	Outlets		
6637C5 IS	1 1/4"	x 3	3/4" M	1	–
6637D5 IS	1 1/4"	x 4	3/4" M	1	–
6637E5 IS	1 1/4"	x 5	3/4" M	1	–
6637F5 IS	1 1/4"	x 6	3/4" M	1	–
6637G5 IS	1 1/4"	x 7	3/4" M	1	–
6637H5 IS	1 1/4"	x 8	3/4" M	1	–
6637I5 IS	1 1/4"	x 9	3/4" M	1	–
6637L5 IS	1 1/4"	x 10	3/4" M	1	–
6637M5 IS	1 1/4"	x 11	3/4" M	1	–
6637N5 IS	1 1/4"	x 12	3/4" M	1	–
6637O5 IS	1 1/4"	x 13	3/4" M	1	–

DISTRIBUTION MANIFOLDS WITH SHUT-OFF AND PRE-REGULATING VALVES

663

tech. broch. 01065

Pair of distribution manifolds equipped with shut-off and lockshield valves for flow rate pre-regulation.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
663735	1 1/4″	x 3	3/4″ M	1	–
663745	1 1/4″	x 4	3/4″ M	1	–
663755	1 1/4″	x 5	3/4″ M	1	–
663765	1 1/4″	x 6	3/4″ M	1	–
663775	1 1/4″	x 7	3/4″ M	1	–
663785	1 1/4″	x 8	3/4″ M	1	–

6630

tech. broch. 01065

Return distribution manifold equipped with shut-off valves, fitted for thermo-electric actuator.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
663030	1 1/4″	x 3	3/4″ M	2	–
663040	1 1/4″	x 4	3/4″ M	2	–
663050	1 1/4″	x 5	3/4″ M	2	–
663060	1 1/4″	x 6	3/4″ M	2	–
663070	1 1/4″	x 7	3/4″ M	2	–
663080	1 1/4″	x 8	3/4″ M	2	–

6631

tech. broch. 01065

Flow distribution manifold equipped with lockshield valve for flow rate pre-regulation.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 50 mm.

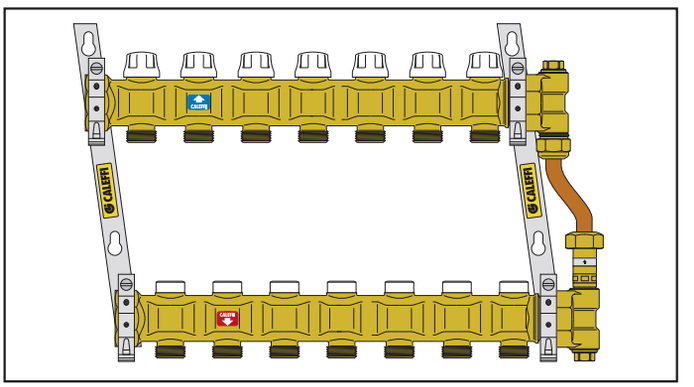
Code	Connections	Outlet No.	Outlets		
663130	1 1/4″	x 3	3/4″ M	2	–
663140	1 1/4″	x 4	3/4″ M	2	–
663150	1 1/4″	x 5	3/4″ M	2	–
663160	1 1/4″	x 6	3/4″ M	2	–
663170	1 1/4″	x 7	3/4″ M	2	–
663180	1 1/4″	x 8	3/4″ M	2	–

663

Off-centre by-pass assembly with fixed setting 20 kPa (2000 mm w.g.).
For pre-assembled distribution manifolds 663 series.
Max.working pressure: 10 bar.
Temperature range: -10–110°C.

Code			
663000	1/2″ M x 3/8″ M	1	20

Connection example of differential by-pass code 663000 with pre-assembled distribution manifold 663 series



391

Pair of ball valves.
Female - male connections with union.
With temperature gauge, scale: 0–80°C, Ø 40 mm.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

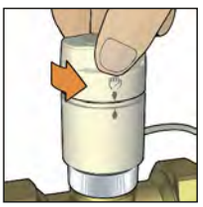
Code			
391167	1″ x 1 1/4″	1	–
391177	1 1/4″ x 1 1/4″	1	–

391

Pair of ball valves.
Female - male connections with union.
With temperature gauge connection.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code			
391067	1″ x 1 1/4″	1	–
391077	1 1/4″ x 1 1/4″	1	–

THERMO-ELECTRIC ACTUATORS



6563

tech. broch. 01142

Thermo-electric actuator.
With manual opening and position indicator.
For distribution manifolds 662 and 663 series.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Starting current (656344/54): ≤ 250 mA.
Auxiliary microswitch contact rating:
0,8 A (230 V).
Ambient temperature range: 0–50°C.
Protection class: IP 40.
Cable length: 80 cm.

Code	Supply voltage V			
656312	230		1	10
656314	24		1	10
656302	230	without auxiliary microswitch	1	10
656304	24	without auxiliary microswitch	1	10

With low power consumption NEW

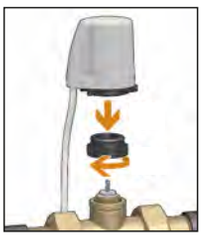
Code	Supply voltage V			
656354	24		1	10
656344	24	without auxiliary microswitch	1	10

6561

tech. broch. 01042

Thermo-electric actuator.
For distribution manifolds 662 and 663 series.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating:
0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 44 (vertical stem).
Cable length: 80 cm.

Code	Supply voltage V			
656112	230		1	10
656114	24		1	10
656102	230	without auxiliary microswitch	1	10
656104	24	without auxiliary microswitch	1	10



6562

tech. broch. 01198

Thermo-electric actuator.
With opening position indicator.
Quick-coupling installation,
with a clip adapter.
For distribution manifolds 662 and 663 series.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating:
0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

Code	Supply voltage V			
656212	230		1	10
656214	24		1	10
656202	230	without auxiliary microswitch	1	10
656204	24	without auxiliary microswitch	1	10

6564

tech. broch. 01198

Thermo-electric actuator
with low power consumption.
With opening position indicator.
Quick-coupling installation,
with a clip adapter.
For distribution manifolds 662 and 663 series.
Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating:
0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 250 mA.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

Code	Supply voltage V			
656412	230		1	10
656414	24		1	10
656402	230	without auxiliary microswitch	1	10
656404	24	without auxiliary microswitch	1	10

385

Shut-off ball cook,
for distribution manifold outlets.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
With handle.

Code			
385000	23 p.1,5 M x F nut	10	–

385

Shut-off ball cook,
for distribution manifold outlets.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Without handle.

Code			
385010	23 p.1,5 M x F nut	15	150

386

Screw plug with nut
for distribution manifold outlets.

Code			
386000	23 p.1,5	10	–

383

Female fitting to nut and olive coupling.

Code					
383030	3/8" F x	23 p.1,5 M		10	–
383040	1/2" F x	23 p.1,5 M		10	–
383050	3/4" F x	23 p.1,5 M		10	–
383140	23 p.1,5 F x	1/2" M		10	–
383150	23 p.1,5 F x	3/4" M		10	–
383151	23 p.1,5 F x	3/4" M	chrome plated	10	–

383

Connection fitting with O-Ring seal
for use with 3/4" 347, 679 and 680 series.

Code			
383550	3/4" M x 23 p.1,5	10	100

383

Female-female fitting.

Code			
383240	23 p.1,5 F x 1/2" F	10	–

384

Male fitting to nut and olive coupling.

Code			
384030	3/8" M x 23 p.1,5 M	10	–
384040	1/2" M x 23 p.1,5 M	10	–
384050	3/4" M x 23 p.1,5 M	10	–

384

Male fitting to nut and olive coupling.
Chrome plated.

Code			
384031	3/8" M x 23 p.1,5 M	10	–
384041	1/2" M x 23 p.1,5 M	10	–

382

Fitting with 23 p.1,5 captive nut.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code			
382000	23 p.1,5 M x nut 23 p.1,5 F	10	–

392

Temperature gauge fitting.
For distribution manifolds 592 and 350 series.
Temperature gauge 0–80°C, Ø 40 mm.

Code				
392600	1″ F x M	with PTFE seal	1	–
392700	1 1/4″ F x M	without PTFE seal	1	–

657

Temperature gauge fitting.
Temperature gauge 0–80°C, Ø 40 mm.

Code			
657400	1/2″ M x 1/2″ F	5	–

657

Temperature gauge fitting.
For distribution manifold outlets.
Temperature gauge 0–80°C, Ø 40 mm.

Code			
657050	3/4″ M x 3/4″ F nut	1	12

669

Self cleaning flow meter.
Flow rate scale: 1–4 l/min.
Double reading scale.
Max. working pressure: 6 bar.
Max. working temperature: 80°C.
Accuracy: ±10%.

Code			
669050	3/4″ M x 3/4″ F nut	1	10

688

tech. broch. 01144

Temperature gauge with pocket.
Scale 0–80°C.
Ø 40 mm.

Code			
688002	1/4″	2	–

3642

Reduction fitting.

Code			
364276	1″ F x 1 1/4″ M	2	–

5991

End fitting.
For distribution manifolds 349, 350, 592, 650 and 663 series.

Code			
599153	3/4″ F x 3/8″ F	2	–
599154	3/4″ F x 1/2″ F	2	–
599163	1″ F x 3/8″ F	2	–
599164	1″ F x 1/2″ F	2	–
599173	1 1/4″ F x 3/8″ F	2	–
599174	1 1/4″ F x 1/2″ F	2	–

5993

Plug.
For distribution manifolds 349, 350, 592, 650 and 663 series.

Code			
599350	3/4″ F	2	10
599360	1″ F	2	10
599370	1 1/4″ F	2	10

5994

Double radial end fitting.
For distribution manifolds 349, 350, 592, 650 and 663 series.

Code					
599453	3/4″ F	x 1/2″ F	x 3/8″ F	2	–
599454	3/4″ F	x 1/2″ F	x 1/2″ F	2	–
599463	1″ F	x 1/2″ F	x 3/8″ F	2	–
599464	1″ F	x 1/2″ F	x 1/2″ F	2	–
599473	1 1/4″ F	x 1/2″ F	x 3/8″ F	2	–
599474	1 1/4″ F	x 1/2″ F	x 1/2″ F	2	–

5995

Single radial end fitting.
For distribution manifolds 349, 350, 592, 650 and 663 series.

Code				
599553	3/4″ F	x 3/8″ F	2	–
599563	1″ F	x 3/8″ F	2	–
599573	1 1/4″ F	x 3/8″ F	2	–

586

Female blind end plug.

Code				
586300	3/8″ F	10	–
586400	1/2″ F	10	–
586600	1″ F	10	–

583

Female compression fitting for outlets.

Code				
583034	3/8″ F x 1/2″ M - Ø 16	10	–
583045	1/2″ F x 3/4″ M - Ø 18	10	–
583064	1″ F x 1/2″ M - Ø 16	10	–
583065	1″ F x 3/4″ M - Ø 18	10	–

584

Male compression fitting for outlets.

Code				
584053	3/4″ M x 3/8″ M - Ø 12	10	–
584054	3/4″ M x 1/2″ M - Ø 16	10	–
584055	3/4″ M x 3/4″ M - Ø 18	10	–
584065	1″ M x 3/4″ M - Ø 18	10	–

585

Stiffener for copper pipe with wall thickness 0,75 and 1 mm.

Code		Thickness (mm)		
585010	Ø 10	0,75	100	–
585012	Ø 12	0,75	100	–
585014	Ø 14	0,75	100	–
585015	Ø 15	0,75	100	–
585016	Ø 16	0,75	100	–
585018	Ø 18	0,75	100	–
585110	Ø 10	1	100	–
585112	Ø 12	1	100	–
585114	Ø 14	1	100	–
585115	Ø 15	1	100	–
585116	Ø 16	1	100	–
585118	Ø 18	1	100	–

386

Screw plug with nut
for distribution manifold outlets.

Code			
386500	3/4″	10	–

FITTINGS

679
DARCAL

Fitting for multilayer plastic pipe
for continuous high temperature use.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series (see page 61).

Code			
679114	23 p.1,5 - Ø 14x2	10	100
679124	23 p.1,5 - Ø 16x2	10	100
679125	23 p.1,5 - Ø 16x2,25	10	100
679144	23 p.1,5 - Ø 18x2	10	100

680
DARCAL

Self-adjustable diameter fitting
for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).

Code		$Ø_{inside}$	$Ø_{outside}$		
680000	23 p.1,5	7,5– 8	12–14	10	100
680002	23 p.1,5	9 – 9,5	14–16	10	100
680001	23 p.1,5	9,5–10	12–14	10	100
680006	23 p.1,5	9,5–10	14–16	10	100
680015	23 p.1,5	10,5–11	14–16	10	100
680017	23 p.1,5	10,5–11	16–18	10	100
680024	23 p.1,5	11,5–12	14–16	10	100
680026	23 p.1,5	11,5–12	16–18	10	100
680035	23 p.1,5	12,5–13	16–18	10	100
680044	23 p.1,5	13,5–14	16–18	10	100

680
DARCAL

Self-adjustable diameter fitting
for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).

Code		$Ø_{inside}$	$Ø_{outside}$		
680055	23 p.1,5	14,5–15	18–20	10	100
680064	23 p.1,5	15,5–16	18–20	10	100

446

Pre-assembled compression fitting,
for annealed copper, hard copper, brass,
mild steel and stainless steel pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.

Code			
446010	23 p.1,5 - Ø 10	100	–
446012	23 p.1,5 - Ø 12	100	–
446014	23 p.1,5 - Ø 14	100	–
446015	23 p.1,5 - Ø 15	100	–
446016	23 p.1,5 - Ø 16	100	–

347

Compression fitting for annealed copper,
hard copper, brass, mild steel and
stainless steel pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.

Code			
347010	23 p.1,5 - Ø 10	100	–
347012	23 p.1,5 - Ø 12	100	–
347014	23 p.1,5 - Ø 14	100	–
347015	23 p.1,5 - Ø 15	100	–
347016	23 p.1,5 - Ø 16	100	–

444

Compression fitting,
for PE coated copper pipes,
"**Q-tec®**" **KME** and "**TUBOTECH®**"series.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

"Q-tec®" and "TUBOTECH®" pipes must be cut and prepared using the specific tool indicated by the manufactures.

Code			
444014	23 p.1,5 - Ø 14	10	100
444016	23 p.1,5 - Ø 16	10	100

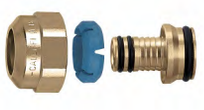
444

Compression fitting,
for "VIEGA" multilayer pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

"VIEGA" pipes must be calibrated using the specific tool indicated by the manufactures.

Code			
444024	23 p.1,5 - Ø 16x2,2	10	100

FITTINGS



679
DARCAL

Fitting for multilayer pipes with continuous high temperature use.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series (see page 61).

Code				
679514	3/4" - Ø 14x2	10	100
679524	3/4" - Ø 16x2	10	100
679525	3/4" - Ø 16x2,25	10	100
679544	3/4" - Ø 18x2	10	100
679564	3/4" - Ø 20x2	10	100
679565	3/4" - Ø 20x2,25	10	100
679566	3/4" - Ø 20x2,5	10	100

680
DARCAL

Self-adjustable diameter fitting for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).

Code		$Ø_{inside}$	$Ø_{outside}$		
680507	3/4"	7,5– 8	10,5–12	10	100
680502	3/4"	7,5– 8	12 –14	10	100
680503	3/4"	8,5– 9	12 –14	10	100
680500	3/4"	9 – 9,5	14 –16	10	100
680501	3/4"	9,5–10	12 –14	10	100
680506	3/4"	9,5–10	14 –16	10	100
680515	3/4"	10,5–11	14 –16	10	100
680517	3/4"	10,5–11	16 –18	10	100
680524	3/4"	11,5–12	14 –16	10	100
680526	3/4"	11,5–12	16 –18	10	100
680535	3/4"	12,5–13	16 –18	10	100
680537	3/4"	12,5–13	18 –20	10	100
680544	3/4"	13,5–14	16 –18	10	100
680546	3/4"	13,5–14	18 –20	10	100
680555	3/4"	14,5–15	18 –20	10	100
680556	3/4"	15 –15,5	18 –20	10	100
680564	3/4"	15,5–16	18 –20	10	100
680505	3/4"	17	22,5	10	100

680
DARCAL

Self-adjustable diameter fitting for plastic pipes.
Max. working pressure: 10 bar.
Temperature range: 5–80°C.

Code		$Ø_{inside}$	$Ø_{outside}$		
680687	1"	17,5	25	10	100
680605	1"	19,5	25	10	100

347

Compression fitting for annealed copper, hard copper, brass, mild steel and stainless steel pipes. With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.

Code			
347510	3/4" - Ø 10	100	–
347512	3/4" - Ø 12	100	–
347514	3/4" - Ø 14	100	–
347515	3/4" - Ø 15	100	–
347516	3/4" - Ø 16	100	–
347518	3/4" - Ø 18	10	–

591

Fitting for plastic pipes.

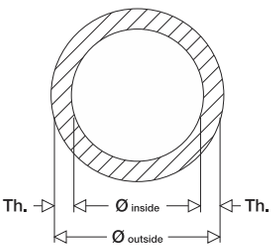
Code		$Ø_{inside}$	$Ø_{outside}$		
591401	1/2"	8	13	10	–
591402	1/2"	10	12	10	–
591405	1/2"	10	15	10	–
591414	1/2"	11,6	16	10	–
591424	1/2"	12	16	10	–
591433	1/2"	13	16	10	–
591565	3/4"	16	21	10	–
591566	3/4"	16	22	10	–

5812

Nut and olive or single groove seal in PTFE.
For copper pipe.

Code			
581230	3/8" + single groove Ø 10	10	250
581232	3/8" + olive Ø 12	10	250
581236	3/8" + single groove Ø 6	10	250
581238	3/8" + single groove Ø 8	10	250
581240	1/2" + single groove Ø 10	10	250
581242	1/2" + single groove Ø 12	10	250
581244	1/2" + single groove Ø 14	10	250
581245	1/2" + single groove Ø 15	10	250
581246	1/2" + olive Ø 16	10	250
581254	3/4" + single groove Ø 14	10	250
581256	3/4" + single groove Ø 16	10	250
581258	3/4" + olive Ø 18	10	250

Example: 680 series fitting selection



Known both the outside and inside diameters (**ex.: 17 mm** and **13 mm**);

or known the outside diameter (**ex.: Øo 17 mm**) and the thickness (**ex.: th. 2 mm**) and considering that:

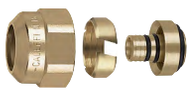
$$Ø_{outside} - 2 \cdot th. = Ø_{inside}$$

$$17 - 2 \cdot 2 = 13 \text{ mm}$$

Look within the table for the code matching both diameters:

Code		$Ø_{inside}$	$Ø_{outside}$
680035	23 p.1,5	12,5–13	16–18

FITTINGS



444

Compression fitting,
for PE coated copper pipes,
"**Q-tec**®" **KME** and "**TUBOTECH**®" series.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

"Q-tec®" and "TUBOTECH®" pipes must be cut and calibrated using the specific tool indicated by the manufacturer.

Code			
444514	3/4" - Ø 14	10	100
444516	3/4" - Ø 16	10	100
444520	3/4" - Ø 20	10	100

444

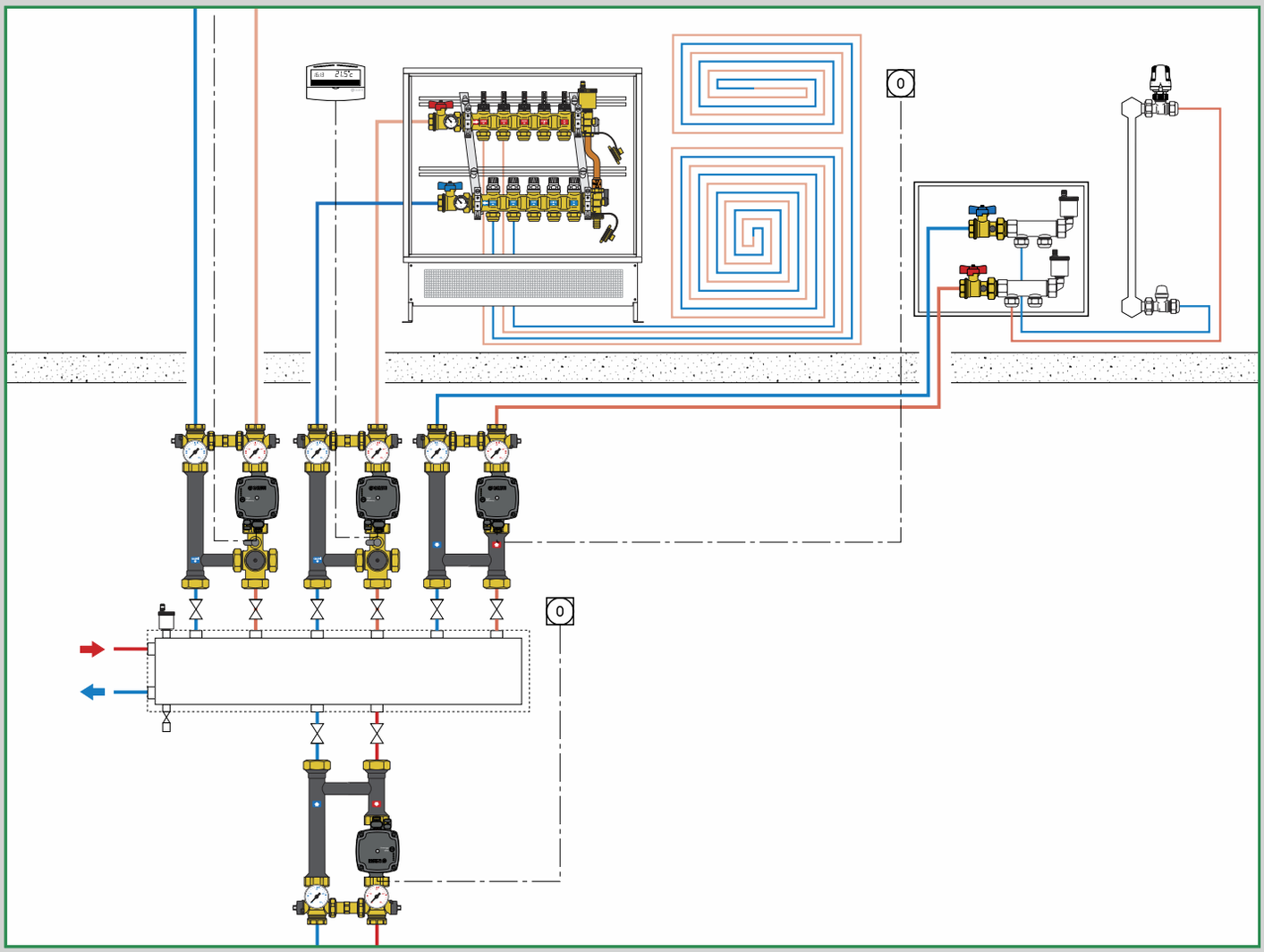
Compression fitting,
for multilayer "VIEGA" pipes.
With O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 0–95°C.

"VIEGA" pipes must be calibrated using the specific tool indicated by the manufacturer.

Code			
444524	3/4" - Ø 16x2,2	10	100
444546	3/4" - Ø 20x2,8	10	100

RADIANT PANEL SYSTEM CONTROL

This diagram is just an indication



Distribution units for SEPCOLL
Temperature regulators
Outside compensated temperature regulating units
Modulating temperature regulating units
Set point thermostatic regulating units
Ice detection and control system

Distribution manifolds for radiant panel systems

DIRECT SUPPLY UNITS

165

tech. broch. 01237

Direct supply unit
for heating systems.
With pre-formed insulation.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Supply: 230 V - 50/60 Hz.
System side connection: 1″ F.
Boiler side connection: 1 1/2″ M.
Centre distance:
125 mm fitted for SEPCOLL.

RH to LH convertible

Code	Connection	Pump		
165600A2L	1″ F	UPM3 Auto L 25-70	1	–
165601UPM	1″ F	UPML 25-95	1	–

165

tech. broch. 01255

Direct supply unit for heating
and air conditioning systems.
With pre-formed insulation.
Max. working pressure: 10 bar.
Primary inlet temperature range:
5–100°C.
Supply: 230 V - 50/60 Hz.
System side connection: 1″ F.
Boiler side connection: 1 1/2″ M.
Centre distance:
125 mm fitted for SEPCOLL.

Upward flow - flow on RH side
Downward flow - flow on LH side

Code	Connection	Pump		
165640WYP	1″ F	YONOS PARA 25/6 RKA	1	–
165641UPM	1″ F	UPML 25-95	1	–

Upward flow - flow on LH side
Downward flow - flow on RH side

Code	Connection	Pump		
165650WYP	1″ F	YONOS PARA 25/6 RKA	1	–
165651UPM	1″ F	UPML 25-95	1	–

THERMOSTATIC REGULATING UNIT

166

tech. broch. 01238

Thermostatic regulating unit
for heating systems.
With pre-formed insulation.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Supply: 230 V - 50/60 Hz.
System side connection: 1″ F.
Boiler side connection: 1 1/2″ M.
Centre distance:
125 mm fitted for SEPCOLL.

RH to LH convertible

Code	Connection	Pump	Temperature adjustment range		
166600A2L	1″ F	UPM3 Auto L 25-70	25–50°C	1	–
166601UPM	1″ F	UPML 25-95	25–50°C	1	–
166605A2L	1″ F	UPM3 Auto L 25-70	40–70°C	1	–

166

Thermostatic mixing valve.
Max. working pressure: 10 bar.
Connections:
1 1/2″ M x 1 1/4″ M x 1 1/2″ F with captive nut.

Code	Temperature adjustment range	Kv (m^3/h)		
166001	25–50°C	4,1	1	–
166005	40–70°C	4,1	1	–

Spare parts for regulating units
165, 166 and 167 series.

Code	
R19441	YONOS PARA 25-6 pump
F19486	UPML 25-95 pump
F19101/R	flow temperature gauge
F19101/BL	return temperature gauge
R12090	spare spanner for 165 series

MOTORISED REGULATING UNITS

167

tech. broch. 01239

Motorised regulating unit
for heating systems.
With pre-formed insulation.
Regulation with sector three-way valve and 3-point actuator.
With auxiliary microswitch.
Can be connected to digital regulators code 161000 and 1520 series.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Supply: 230 V - 50/60 Hz.
Operating time: 50 s (90° rotation).
System side connection: 1" F.
Boiler side connection: 1 1/2" M.
Centre distance:
125 mm fitted for SEPCOLL.

Upward flow - flow on RH side
Downward flow - flow on LH side

Code	Connection	Pump		
167600A2L	1" F	UPM3 Auto L 25-70	1	–
167601UPM	1" F	UPML 25-95	1	–

Upward flow - flow on LH side
Downward flow - flow on RH side

Code	Connection	Pump		
167610A2L	1" F	UPM3 Auto L 25-70	1	–
167611UPM	1" F	UPML 25-95	1	–

167

tech. broch. 01254

Motorised regulating unit for heating and air conditioning systems.
With pre-formed insulation.
Regulation with sector three-way valve and 3-point actuator.
With auxiliary microswitch.
Can be connected to digital regulators code 161000 and 1520 series.
Max. working pressure: 10 bar.
Primary inlet temperature range: 5–100°C.
Supply: 230 V - 50/60 Hz.
Operating time: 50 s (90° rotation).
System side connection: 1" F.
Boiler side connection: 1 1/2" M.
Centre distance:
125 mm fitted for SEPCOLL.

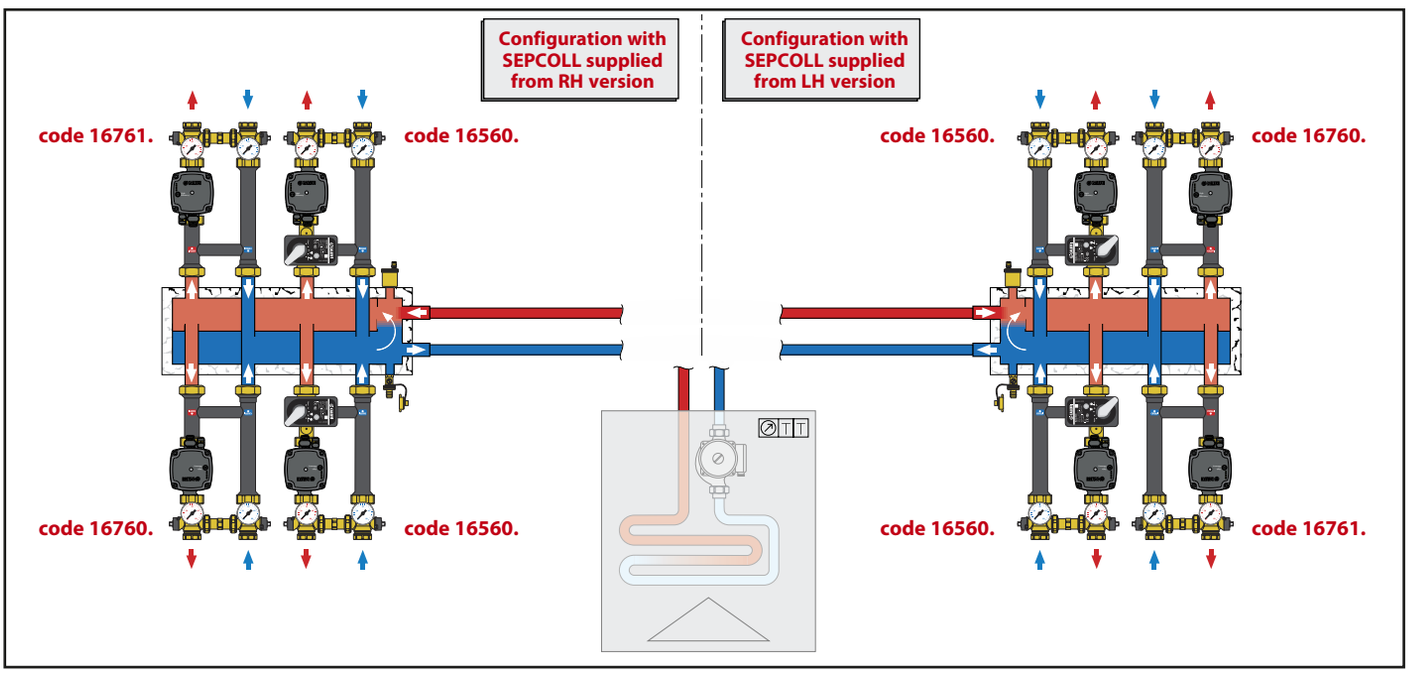
Upward flow - flow on RH side
Downward flow - flow on LH side

Code	Connection	Pump		
167640WYP	1" F	YONOS PARA 25/6 RKA	1	–
167641UPM	1" F	UPML 25-95		

Upward flow - flow on LH side
Downward flow - flow on RH side

Code	Connection	Pump		
167650WYP	1" F	YONOS PARA 25/6 RKA	1	–
167651UPM	1" F	UPML 25-95	1	–

Application diagrams of regulating unit 165 series and motorised regulating unit 167 series



SPARE PARTS AND ACCESSORIES FOR UNITS 165 - 166 - 167 SERIES

167

Sector three-way valve
(equipercentage/linear regulation)
and 3-pointt actuator.
Right-hand version.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Connections:
1 1/2″ M x 1 1/4″ M x 1 1/2″ F captive nut.

Code	Kv (m³/h)		
167032	6,3	1	–

167

Sector three-way valve
(equipercentage/linear regulation)
and 3-pointt actuator.
Left-hand version.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.
Connections:
1 1/2″ M x 1 1/4″ M x 1 1/2″ F captive nut.

Code	Kv (m³/h)		
167042	6,3	1	–

Spare actuator
for regulating units 167 series.

Code		Supply voltage V		
167012	right-hand version	230	1	–
167022	left-hand version	230	1	–
167014	right-hand version	24	1	–
167024	left-hand version	24	1	–

165

Mounting bracket in stainless steel
for units 165, 166 and 167 series.

Code		
165001	1	–

519

Differential by-pass valve
for units 165, 166 and 167 series.
Max. working pressure: 10 bar.
Max. working temperature: 100°C.

Code	Setting range m w.g.		
519006	0,2–3	1	–

165

Pair of eccentric tailpieces
for units 165, 166 and 167 series.
Centre distance: 105–145 mm.

Code			
165006	1 1/2" F x 1″ F	1	–

165

Safety thermostat kit
for units 165, 166 and 167 series.
Protection class: IP 65.
M4 threading.

Code		Setting		
165004	Max. temperature safety thermostat	55°C ±3	1	–
165007	Min. temperature safety thermostat	10°C ±3	1	–

165

Sensor holder extension
for units 165, 166 and 167 series.
Side connections:
M4 F x M4 F x 1/8″ F x 1/4″ F.

Code			
165003	1" M x 1″ F	1	–

165

Female union with captive nut complete
with gasket
for units 165, 166 and 167 series.

Code			
165002	1 1/2" F x 1″ F	1	–

165

Hydraulic separator kit
for units 165, 166 and 167 series.

Code			
165010	1 1/2" F x 1″ F	1	–

TEMPERATURE REGULATORS

NEW

161

Digital regulator with synoptic diagram for heating and cooling complete with immersion flow probes with pocket and return probe with contact probe holder.
Optional outside compensated probe.
Temperature adjustment range: 5–95°C.
Supply: 230 V - 50/60 Hz.
Protection class: IP 20 / EN 60529.
Probe cable length: 2,5 m.

CE

Code			
161010		1	–

1520

Digital temperature controller for heating and cooling.
Complete with flow probe, outside probe and max. relative humidity probe.
Supply: 230 V - 50/60 Hz.
Power consumption: 5,5 VA.
Protection class: IP 40.

CE

Code			
152021	1 channel	1	–

For spare parts and controller accessories see page 108

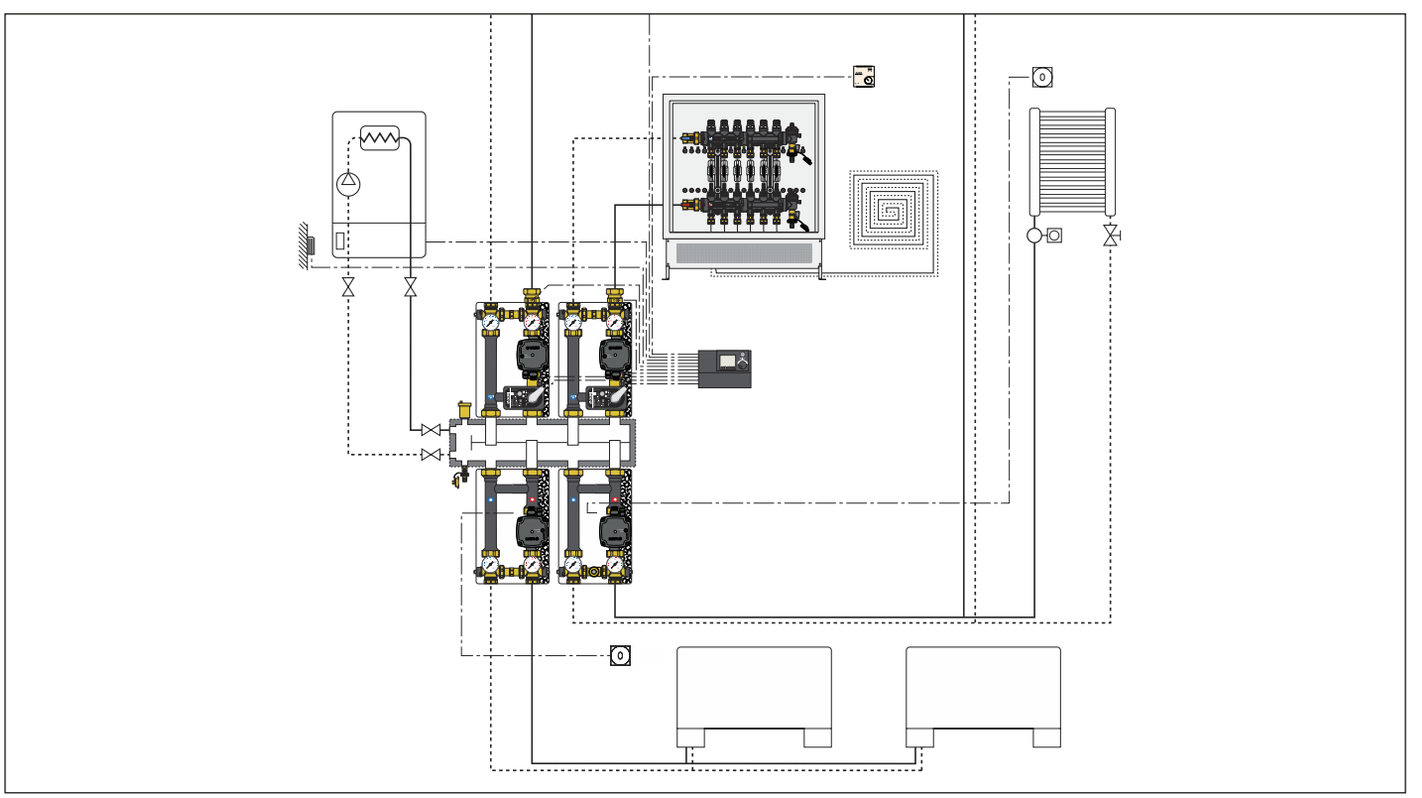
1520

Outside compensated digital temperature regulator. Complete with contact flow probe and outside probe.
Adjustment range: 20–90°C.
Supply: 230 V - 50/60 Hz.
Protection class: IP 40.

CE

Code			
152001	1 channel	1	–
152002	2 channels	1	–
152003	3 channels	1	–

Application diagram of regulator 1520 series



MODULATING TEMPERATURE REGULATING UNIT WITH DIGITAL REGULATOR

171

tech. broch. 01151

Modulating temperature regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- temperature regulating unit with compensated set point digital regulator,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit,
- safety thermostat,
- primary circuit shut-off valves,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Adjustment temperature range: 20–78°C.
Supply: 230 V - 50/60 Hz.

Code	Conn.	Outlet No.	Outlets	Box lenght (mm)		
1715C1A2L	3/4" M	x 3	3/4" M	800	1	–
1715D1A2L	3/4" M	x 4	3/4" M	800	1	–
1715E1A2L	3/4" M	x 5	3/4" M	800	1	–
1715F1A2L	3/4" M	x 6	3/4" M	1000	1	–
1715G1A2L	3/4" M	x 7	3/4" M	1000	1	–
1715H1A2L	3/4" M	x 8	3/4" M	1000	1	–
1715I1A2L	3/4" M	x 9	3/4" M	1200	1	–
1715L1A2L	3/4" M	x 10	3/4" M	1200	1	–
1715M1A2L	3/4" M	x 11	3/4" M	1200	1	–
1715N1A2L	3/4" M	x 12	3/4" M	1200	1	–
1715O1A2L	3/4" M	x 13	3/4" M	1200	1	–

MODULATING TEMPERATURE REGULATING UNIT WITH DIGITAL REGULATOR FOR HEATING AND COOLING

Available on request with regulator for heating/cooling "Remote switch"

171

tech. broch. 01152

Modulating temperature regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- temperature regulating unit with digital regulator for heating and cooling,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit,
- safety thermostat,
- primary circuit shut-off valves,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Adjustment temperature range: 7–78°C.
Supply: 230 V - 50/60 Hz.

Code	Conn.	Outlet No.	Outlets	Box lenght (mm)		
1715C2A2L	3/4" M	x 3	3/4" M	800	1	–
1715D2A2L	3/4" M	x 4	3/4" M	800	1	–
1715E2A2L	3/4" M	x 5	3/4" M	800	1	–
1715F2A2L	3/4" M	x 6	3/4" M	1000	1	–
1715G2A2L	3/4" M	x 7	3/4" M	1000	1	–
1715H2A2L	3/4" M	x 8	3/4" M	1000	1	–
1715I2A2L	3/4" M	x 9	3/4" M	1200	1	–
1715L2A2L	3/4" M	x 10	3/4" M	1200	1	–
1715M2A2L	3/4" M	x 11	3/4" M	1200	1	–
1715N2A2L	3/4" M	x 12	3/4" M	1200	1	–

MODULATING TEMPERATURE REGULATING UNIT WITH DIGITAL REGULATOR AND MEDIUM DISTRIBUTION KIT FOR PRIMARY CIRCUIT

171

tech. broch. 01153

Modulating temperature regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- temperature regulating unit with compensated set point digital regulator,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit,
- safety thermostat,
- primary circuit shut-off valves,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Adjustment temperature range: 20–78°C.
Supply: 230 V - 50/60 Hz.

CE

Code	Conn.	Outlet No. to panels	Outlet No. to radiators	Box lenght (mm)		
1715E1A2L 003	3/4" M	5 x 3/4" M	3 x 3/4" M	800	1	–
1715F1A2L 003	3/4" M	6 x 3/4" M	3 x 3/4" M	1000	1	–
1715G1A2L 003	3/4" M	7 x 3/4" M	3 x 3/4" M	1000	1	–
1715H1A2L 003	3/4" M	8 x 3/4" M	3 x 3/4" M	1000	1	–
1715I1A2L 003	3/4" M	9 x 3/4" M	3 x 3/4" M	1200	1	–
1715L1A2L 003	3/4" M	10 x 3/4" M	3 x 3/4" M	1200	1	–
1715M1A2L 003	3/4" M	11 x 3/4" M	3 x 3/4" M	1200	1	–
1715N1A2L 003	3/4" M	12 x 3/4" M	3 x 3/4" M	1200	1	–

MODULATING TEMPERATURE REGULATING UNIT WITH DIGITAL REGULATOR FOR HEATING AND COOLING AND MEDIUM DISTRIBUTION KIT FOR PRIMARY CIRCUIT

Available on request with regulator for heating/cooling "Remote switch"

171

tech. broch. 01154

Modulating temperature regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- temperature regulating unit with digital regulator for heating and cooling,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit,
- safety thermostat,
- primary circuit shut-off valves,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Temperature adjustment range: 7–78°C.
Supply: 230 V - 50/60 Hz.

CE

Code	Conn.	Outlet No. to panels	Outlet No. to radiators	Box lenght (mm)		
1715E2A2L 003	3/4" M	5 x 3/4" M	3 x 3/4" M	800	1	–
1715F2A2L 003	3/4" M	6 x 3/4" M	3 x 3/4" M	1000	1	–
1715G2A2L 003	3/4" M	7 x 3/4" M	3 x 3/4" M	1000	1	–
1715H2A2L 003	3/4" M	8 x 3/4" M	3 x 3/4" M	1000	1	–
1715I2A2L 003	3/4" M	9 x 3/4" M	3 x 3/4" M	1200	1	–
1715L2A2L 003	3/4" M	10 x 3/4" M	3 x 3/4" M	1200	1	–
1715M2A2L 003	3/4" M	11 x 3/4" M	3 x 3/4" M	1200	1	–
1715N2A2L 003	3/4" M	12 x 3/4" M	3 x 3/4" M	1200	1	–

SET POINT THERMOSTATIC REGULATING UNIT

172

tech. broch. 01155

Set point regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- set point thermostatic regulating unit,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit,
- primary circuit shut-off valves,
- safety thermostat,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

Code	Conn.	Outlet No.	Outlets	Box lenght (mm)		
1725C1A2L	3/4" M	x 3	3/4" M	600	1	–
1725D1A2L	3/4" M	x 4	3/4" M	600	1	–
1725E1A2L	3/4" M	x 5	3/4" M	800	1	–
1725F1A2L	3/4" M	x 6	3/4" M	800	1	–
1725G1A2L	3/4" M	x 7	3/4" M	800	1	–
1725H1A2L	3/4" M	x 8	3/4" M	1000	1	–
1725I1A2L	3/4" M	x 9	3/4" M	1000	1	–
1725L1A2L	3/4" M	x 10	3/4" M	1000	1	–
1725M1A2L	3/4" M	x 11	3/4" M	1000	1	–
1725N1A2L	3/4" M	x 12	3/4" M	1200	1	–
1725O1A2L	3/4" M	x 13	3/4" M	1200	1	–

SET POINT THERMOSTATIC REGULATING UNIT WITH MEDIUM DISTRIBUTION KIT FOR PRIMARY CIRCUIT

172

tech. broch. 01156

Set point regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- set point thermostatic regulating unit,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- panel manifolds with built-in flow meters and shut-off valves and differential by-pass kit,
- primary circuit by-pass kit
- primary circuit shut-off valves,
- safety thermostat,
- high-efficiency pump,
- inspection wall box, with floor supports.

Max. working pressure: 10 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

Code	Conn.	Outlet No. to panels	Outlet No. to radiators	Box lenght (mm)		
1725C1A2L 003	3/4" M	3 x 3/4" M	3 x 3/4" M	800	1	–
1725D1A2L 003	3/4" M	4 x 3/4" M	3 x 3/4" M	800	1	–
1725E1A2L 003	3/4" M	5 x 3/4" M	3 x 3/4" M	800	1	–
1725F1A2L 003	3/4" M	6 x 3/4" M	3 x 3/4" M	1000	1	–
1725G1A2L 003	3/4" M	7 x 3/4" M	3 x 3/4" M	1000	1	–
1725H1A2L 003	3/4" M	8 x 3/4" M	3 x 3/4" M	1000	1	–
1725I1A2L 003	3/4" M	9 x 3/4" M	3 x 3/4" M	1200	1	–
1725L1A2L 003	3/4" M	10 x 3/4" M	3 x 3/4" M	1200	1	–
1725M1A2L 003	3/4" M	11 x 3/4" M	3 x 3/4" M	1200	1	–
1725N1A2L 003	3/4" M	12 x 3/4" M	3 x 3/4" M	1200	1	–

SET POINT THERMOSTATIC REGULATING UNIT

182

tech. broch. 01190

Set point regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- set point thermostatic regulating unit,
- distribution manifolds in composite with built-in flow meters and shut-off valves,
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70,
- inspection wall box, with floor supports.

Max. working pressure: 6 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

CE

Code	Conn.	Outlet No.	Outlets	Box lenght (mm)		
1825C1A2L	3/4" M	x 3	3/4" M	600	1	–
1825D1A2L	3/4" M	x 4	3/4" M	600	1	–
1825E1A2L	3/4" M	x 5	3/4" M	600	1	–
1825F1A2L	3/4" M	x 6	3/4" M	800	1	–
1825G1A2L	3/4" M	x 7	3/4" M	800	1	–
1825H1A2L	3/4" M	x 8	3/4" M	800	1	–
1825I1A2L	3/4" M	x 9	3/4" M	800	1	–
1825L1A2L	3/4" M	x 10	3/4" M	1000	1	–
1825M1A2L	3/4" M	x 11	3/4" M	1000	1	–
1825N1A2L	3/4" M	x 12	3/4" M	1200	1	–
1825O1A2L	3/4" M	x 13	3/4" M	1200	1	–

SET POINT THERMOSTATIC REGULATING UNIT WITH MEDIUM DISTRIBUTION KIT FOR PRIMARY CIRCUIT

182

tech. broch. 01192

Set point regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- set point thermostatic regulating unit,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- distribution manifolds in composite with built-in flow meters and shut-off valves,
- primary circuit by-pass kit,
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70,
- inspection wall box, with floor supports.

Max. working pressure: 6 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

CE

Code	Conn.	Outlet No. to panels	Outlet No. to radiators	Box lenght (mm)		
1826C1A2L 002	1" F	3 x 3/4" M	2 x 3/4" M	800	1	–
1826D1A2L 002	1" F	4 x 3/4" M	2 x 3/4" M	800	1	–
1826E1A2L 002	1" F	5 x 3/4" M	2 x 3/4" M	800	1	–
1826F1A2L 002	1" F	6 x 3/4" M	2 x 3/4" M	1000	1	–
1826G1A2L 002	1" F	7 x 3/4" M	2 x 3/4" M	1000	1	–
1826H1A2L 002	1" F	8 x 3/4" M	2 x 3/4" M	1000	1	–
1826I1A2L 002	1" F	9 x 3/4" M	2 x 3/4" M	1000	1	–
1826L1A2L 002	1" F	10 x 3/4" M	2 x 3/4" M	1000	1	–
1826M1A2L 002	1" F	11 x 3/4" M	2 x 3/4" M	1200	1	–
1826N1A2L 002	1" F	12 x 3/4" M	2 x 3/4" M	1200	1	–
1826O1A2L 002	1" F	13 x 3/4" M	2 x 3/4" M	1200	1	–

SET POINT THERMOSTATIC REGULATING UNIT

182

tech. broch. 01190

Pre-assembled set point thermostatic regulating unit.
Equipped with:
- set point thermostatic regulating unit,
- distribution manifolds in composite with built-in flow meters and shut-off valves,
- safety thermostat,
- high efficiency pump, UPM3 Auto L 25-70.

Max. working pressure: 6 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

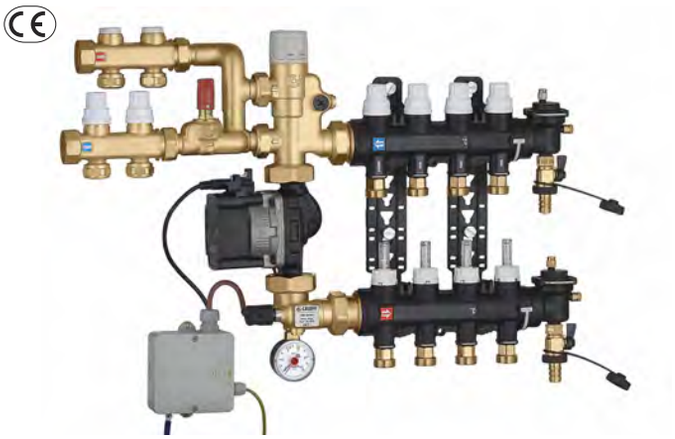
Code	Conn.	Outlet No.	Outlets	Box choise (mm)		
1825C5A2L	3/4" M	x 3	3/4" M	600	1	–
1825D5A2L	3/4" M	x 4	3/4" M	600	1	–
1825E5A2L	3/4" M	x 5	3/4" M	600	1	–
1825F5A2L	3/4" M	x 6	3/4" M	800	1	–
1825G5A2L	3/4" M	x 7	3/4" M	800	1	–
1825H5A2L	3/4" M	x 8	3/4" M	800	1	–
1825I5A2L	3/4" M	x 9	3/4" M	800	1	–
1825L5A2L	3/4" M	x 10	3/4" M	1000	1	–
1825M5A2L	3/4" M	x 11	3/4" M	1000	1	–
1825N5A2L	3/4" M	x 12	3/4" M	1200	1	–
1825O5A2L	3/4" M	x 13	3/4" M	1200	1	–

182

tech. broch. 01192

Pre-assembled set point regulating unit.
Equipped with:
- thermostatic set point regulating unit,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- distribution manifolds in composite with built-in flow meters and shut-off valves,
- primary circuit by-pass kit,
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70.

Max. working pressure: 6 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.



Code	Conn.	Outlet No. to panels	Outlet No. to radiators	Box choise (mm)		
1826C5A2L 002	1" F	3 x 3/4" M	2 x 3/4" M	800	1	–
1826D5A2L 002	1" F	4 x 3/4" M	2 x 3/4" M	800	1	–
1826E5A2L 002	1" F	5 x 3/4" M	2 x 3/4" M	800	1	–
1826F5A2L 002	1" F	6 x 3/4" M	2 x 3/4" M	1000	1	–
1826G5A2L 002	1" F	7 x 3/4" M	2 x 3/4" M	1000	1	–
1826H5A2L 002	1" F	8 x 3/4" M	2 x 3/4" M	1000	1	–
1826I5A2L 002	1" F	9 x 3/4" M	2 x 3/4" M	1000	1	–
1826L5A2L 002	1" F	10 x 3/4" M	2 x 3/4" M	1000	1	–
1826M5A2L 002	1" F	11 x 3/4" M	2 x 3/4" M	1200	1	–
1826N5A2L 002	1" F	12 x 3/4" M	2 x 3/4" M	1200	1	–
1826O5A2L 002	1" F	13 x 3/4" M	2 x 3/4" M	1200	1	–

661

Box for manifolds
662, 671 and 668...S1 series
and regulating units 182 series.
Closure with a push-fit clamp.
In painted sheet steel.
With supports for installation on floor.
Adjustable depth from 110 to 150 mm.
Adjustable height from 270 a 410 mm.

Code	Dim. (h x w x d)		
661045	500 x 400 x 110–150	1	–
661065	500 x 600 x 110–150	1	–
661085	500 x 800 x 110–150	1	–
661105	500 x 1000 x 110–150	1	–
661125	500 x 1200 x 110–150	1	–

SET POINT THERMOSTATIC REGULATING UNIT

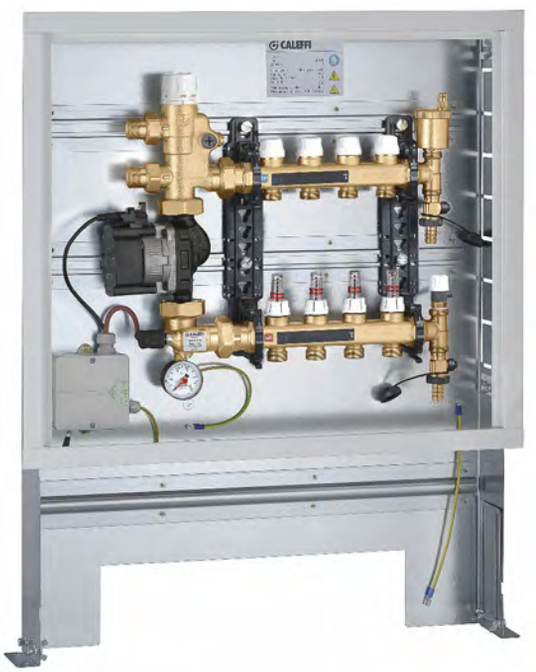
NEW

182

Set point regulating unit.
Pre-assembled in inspection wall box. Equipped with:
- set point thermostatic regulating unit,
- return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- flow manifold complete with flow meters with 0–5 l/m scale and flow rate balancing valves;
- end fittings with automatic air vent and drain cock;
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70,
- inspection wall box, with floor supports.

Max. working pressure: 6 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

CE



Code	Conn.	Outlet No.	Outlets	Box choise (mm)		
1825C7A2L	3/4" M	x 3	3/4" M	600	1	–
1825D7A2L	3/4" M	x 4	3/4" M	600	1	–
1825E7A2L	3/4" M	x 5	3/4" M	600	1	–
1825F7A2L	3/4" M	x 6	3/4" M	800	1	–
1825G7A2L	3/4" M	x 7	3/4" M	800	1	–
1825H7A2L	3/4" M	x 8	3/4" M	800	1	–
1825I7A2L	3/4" M	x 9	3/4" M	800	1	–
1825L7A2L	3/4" M	x 10	3/4" M	1000	1	–
1825M7A2L	3/4" M	x 11	3/4" M	1000	1	–
1825N7A2L	3/4" M	x 12	3/4" M	1000	1	–
1825O7A2L	3/4" M	x 13	3/4" M	1000	1	–

182

tech. broch. 01190

Pre-assembled set point regulating unit.
Equipped with:
- set point thermostatic regulating unit,
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70.

Max. working pressure: 10 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

Code	Connections		
182521A2L	3/4" M	1	–

182

tech. broch. 01192

Pre-assembled set point regulating unit.
Equipped with:
- set point thermostatic regulating unit,
- medium distribution kit with built-in lockshields and shut-off valves for primary circuit,
- primary circuit by-pass kit,
- safety thermostat,
- high-efficiency pump, UPM3 Auto L 25-70.

Max. working pressure: 10 bar.
Adjustment temperature range: 25–55°C.
Supply: 230 V - 50/60 Hz.

Code	Connections	Outlets		
182621A2L 002	1" F	2	1	–
182621A2L 003	1" F	3	1	–

675

Pair of fittings with seals for connection of 182 series groups to 662 and 664 series manifolds.

Code			
675005	1 1/4" M x 1" M	1	–

675

Pair of fittings with seals for connection of 182 series groups to 670 and 671 series manifolds.

Code			
675004	1 1/4" M x 1 1/4" M	1	–

ACCESSORIES FOR REGULATING UNITS

150

tech. broch. 01120

Accessories for regulating unit to connect more manifolds or for regulator code 161000.

Code			
150050	humidity probe	1	–
150051	converter	1	–
150052	transformer	1	–

622

tech. broch. 01088

Additional safety thermostat,
for radiant panel systems.
Adjustment temperature range: 5–55°C.
Factory setting: 50°C.
Protection class: IP 40.

Code			
622001		1	10

151

Room thermostat with automatic switch over heating/cooling, for regulator code 152021.
For circular recessed box Ø 68 mm,
depth 35/50 mm.

Code			
151003		1	–

151

Room thermostat
for regulator 1520 series.

Code			
151000		1	–

182

Differential by-pass kit with fixed setting 25 kPa (2.500 mm w.g.)
complete with flexible hose.
For regulating units 182 series
and manifolds 670 and 671 series.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
182000	3/4"	1	5

SPARE PARTS FOR REGULATING UNITS

174 series

Code	
150032	digital regulator for heating
150033	digital regulator for heating and cooling
150034	remote control for heating and cooling with mounting base
150036	remote control for heating with mounting base
150035	interface for heating and cooling
150004	outside probe
150006	flow or return probe
R19093	safety thermostat
F19223	mixing valve group with actuator support
F19155	actuator for mixing valve
F39344	temperture gauge 0–80°C

171 series

Code	
F19095	digital regulator
F69264	flow or return probe
R19093	safety thermostat
F19223	mixing valve group with actuator support
F19155	actuator for mixing valve
F39344	temperture gauge 0–80°C

172 - 182 series

Code	
R19093	safety thermostat
F19153	thermostatic mixing valve group x 172 series
F19267	thermostatic mixing valve group x 182 series
F39344	temperature gauge 0–80°C
R19219	electronic board

ICE DETECTION AND CONTROL SYSTEM

605

Digital temperature and humidity control unit for detecting ice/snow.
Supply: 230 V - 50 Hz.
Output contact rating: 6 A (230 V).
To connect up to 2 probes.

CE

Code			
605100		1	–

605

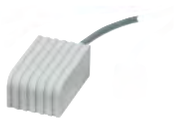
Temperature and relative humidity probe for open outdoor areas, with cable.

Code			
605110	cable 6 m	1	–
605120	cable 20 m	1	–

605

Temperature and relative humidity probe for gutters, flat roofs and dish aerials, with cable.
Cable length: 6 m.

Code			
605031		1	–

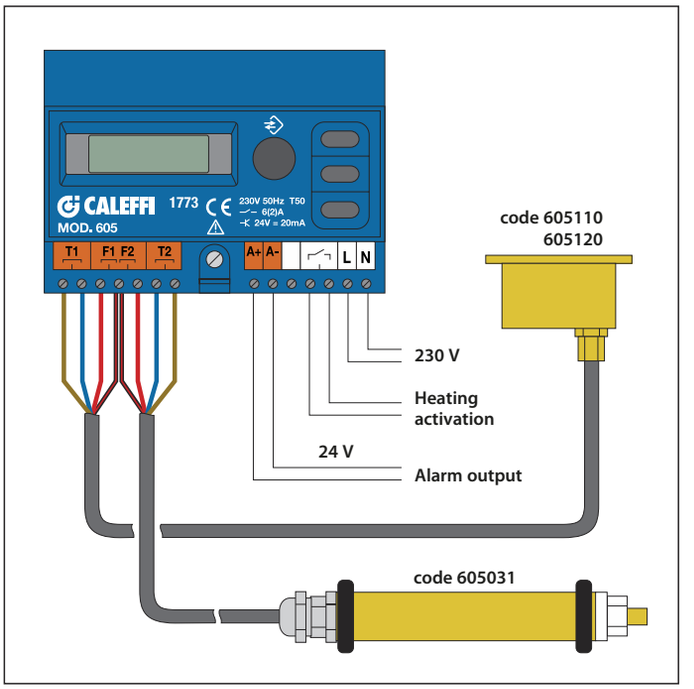


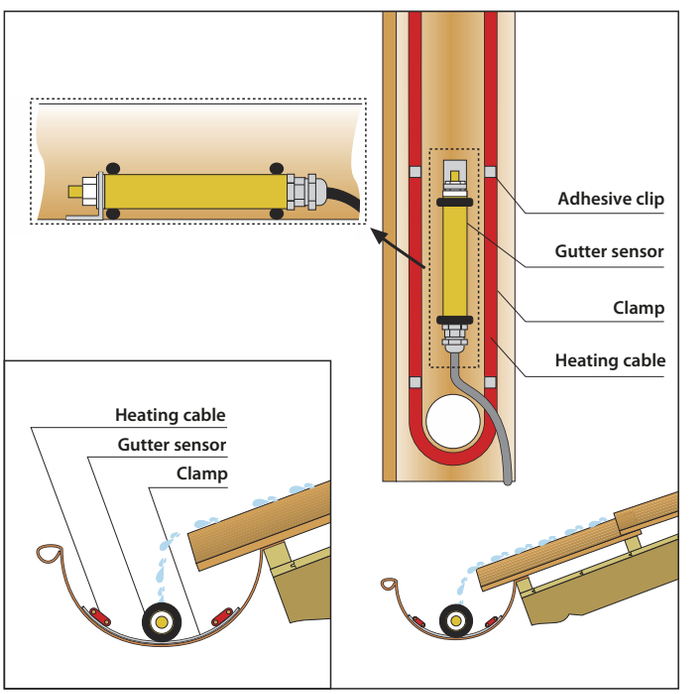
150

Outside probe.

Code
150004

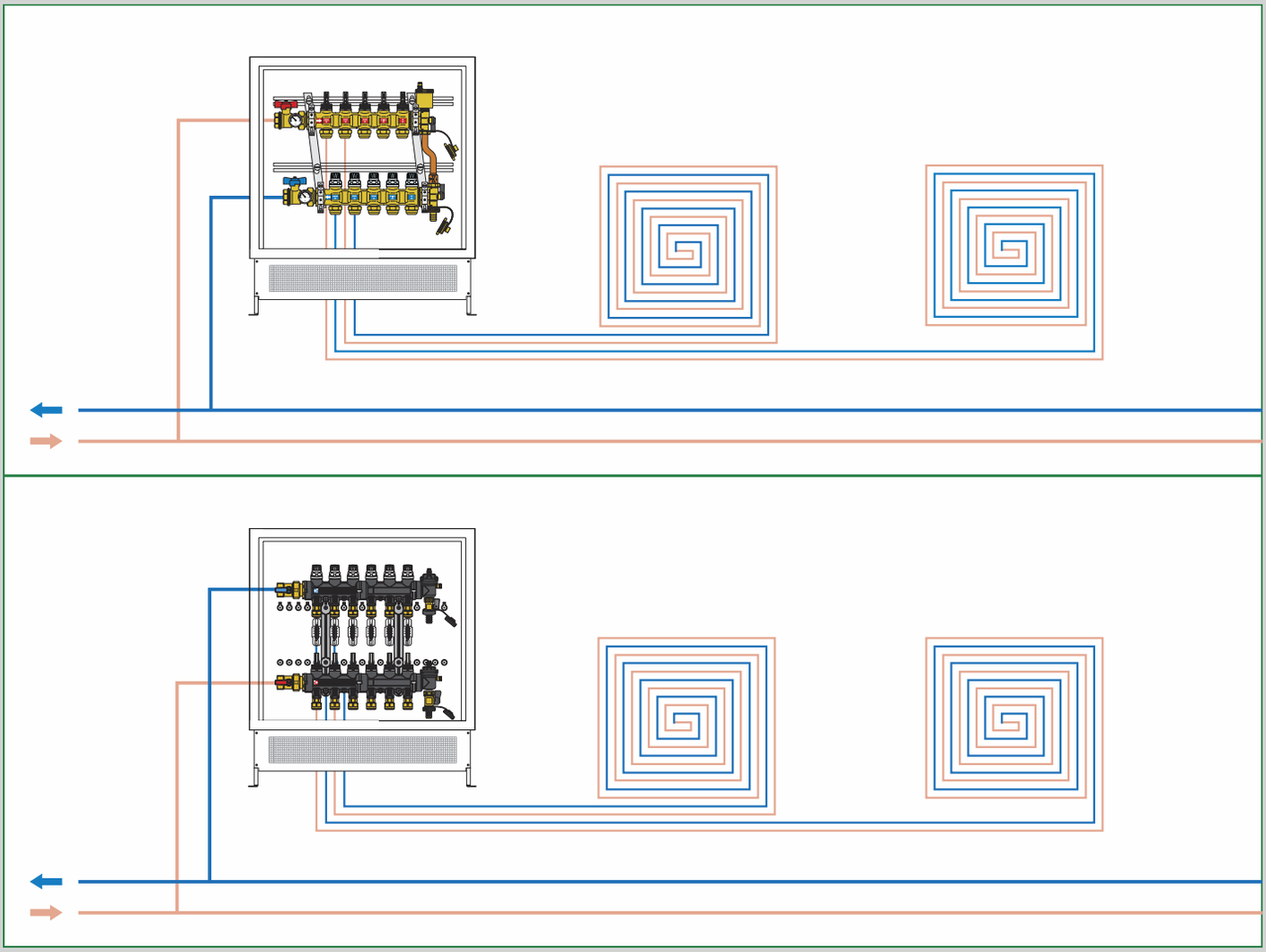
Application diagram of control unit for on detecting ice/snow





DISTRIBUTION MANIFOLDS FOR RADIANT PANEL SYSTEMS

This diagram is just an indication



Composite distribution manifolds
Brass distribution manifolds for radiant panel systems
Boxes for distribution manifolds
Thermo-electric actuators
Control bar

COMPOSITE DISTRIBUTION MANIFOLDS

670

tech. broch. 01126

Pre-assembled distribution manifold.
Max. working pressure: 6 bar.
Temperature range: 5–60°C.

Equipped with:
- technopolymer flow manifold with built-in flow meters and flow rate balancing valves;
- technopolymer return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- technopolymer end fittings with automatic air vent with hygroscopic cap, discharge valve and fill/drain cock;
- pair of ball shut-off valves;
- LCD thermometers on flow and return manifolds;
- adhesive labels indicating the rooms;
- pair of mounting brackets for box installation;
- box with adjustable height and depth;
- coupling adapter with clip code 675850, for manifold outlets (in package);
- template for cutting pipe code 675002 (in package).

Code	Conn.	Outlet No.	Outlets	Box lenght (mm)		
6706C1	1″ F	x 3	3/4″ M	600	1	–
6706D1	1″ F	x 4	3/4″ M	600	1	–
6706E1	1″ F	x 5	3/4″ M	600	1	–
6706F1	1″ F	x 6	3/4″ M	600	1	–
6706G1	1″ F	x 7	3/4″ M	800	1	–
6706H1	1″ F	x 8	3/4″ M	800	1	–
6706I1	1″ F	x 9	3/4″ M	800	1	–
6706L1	1″ F	x 10	3/4″ M	800	1	–
6706M1	1″ F	x 11	3/4″ M	800	1	–
6706N1	1″ F	x 12	3/4″ M	800	1	–

671

Pre-assembled distribution manifold.
Max. working pressure: 6 bar.
Temperature range: 5–60°C.

Equipped with:
- technopolymer flow manifold with built-in flow meters and flow rate balancing valves;
- technopolymer return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- technopolymer end fittings with automatic air vent with hygroscopic cap, discharge valve and fill/drain cock;
- pair of ball shut-off valves;
- LCD thermometers on flow and return manifolds;
- adhesive labels indicating the rooms;
- pair of mounting brackets for box or wall mounting;
- coupling adapter with clip code 675850, for manifold outlets (in package);
- template for cutting pipe code 675002 (in package).

Code	Connections	Outlet No.	Outlets	Box choise (mm)		
6716C1	1″ F	x 3	3/4″ M	600	1	–
6716D1	1″ F	x 4	3/4″ M	600	1	–
6716E1	1″ F	x 5	3/4″ M	600	1	–
6716F1	1″ F	x 6	3/4″ M	600	1	–
6716G1	1″ F	x 7	3/4″ M	600	1	–
6716H1	1″ F	x 8	3/4″ M	800	1	–
6716I1	1″ F	x 9	3/4″ M	800	1	–
6716L1	1″ F	x 10	3/4″ M	800	1	–
6716M1	1″ F	x 11	3/4″ M	800	1	–
6716N1	1″ F	x 12	3/4″ M	800	1	–
6716O1	1″ F	x 13	3/4″ M	–	1	–
6716P1	1″ F	x 14	3/4″ M	–	1	–

ACCESSORIES FOR COMPOSITE DISTRIBUTION MANIFOLDS

675

tech. broch. 01126

Technopolymer end fitting
with automatic air vent with hygroscopic cap,
discharge valve, fill/drain cock.
Max. working pressure: 6 bar.
Temperature range: 5–60°C.

Code			
675800	1 1/4″	1	20

675

tech. broch. 01126

Push-fit thermometer for panel piping.
For pipes with outer diameter from 15 to 18 mm.
Thermometer scale: 5–50°C.
Thermometer fluid: alcohol.
Thermo-conductive paste
supplied in package.

Code			
675900		10	100

675

tech. broch. 01126

Coupling adapter with clip.

Code			
675850	3/4″ Ø 18 mm	1	40

675

tech. broch. 01126

Cutting pipe template.

Code			
675002		10	–

182

Differential by-pass kit
with fixed setting 25 kPa (2.500 mm w.g.)
complete with flexible hose.
For regulating units 182 series
and manifolds 670 and 671 series.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
182000	3/4″	1	5

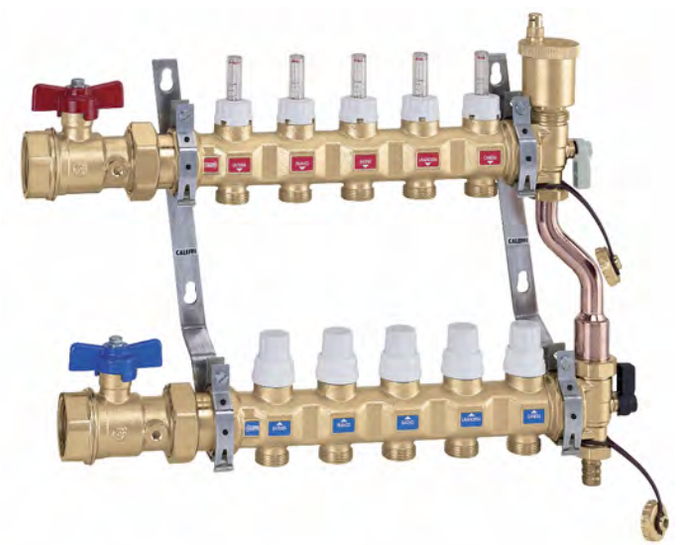
BRASS DISTRIBUTION MANIFOLDS FOR RADIANT PANEL SYSTEMS

668...S1

tech. broch. 01144

Pre-assembled distribution manifold.
Max. working pressure: 10 bar.
Temperature range: 0–80°C.

Equipped with:
- flow manifold with built-in flow meters and flow rate balancing valves;
- return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- end fittings with multi-position ball valve, automatic air vent and fill/drain hose connection;
- off-centre by-pass kit with fixed setting and with connecting pipe;
- ball shut-off valves;
- mounting brackets for box or wall mounting.



Code	Conn.	Outlet No.	Outlets	Box choise (mm) with / withouth AUTOFLOW®		
6686C5S1	1″ F	x 3	3/4″ M	600 / 600	1	–
6686D5S1	1″ F	x 4	3/4″ M	600 / 600	1	–
6686E5S1	1″ F	x 5	3/4″ M	600 / 800	1	–
6686F5S1	1″ F	x 6	3/4″ M	600 / 800	1	–
6686G5S1	1″ F	x 7	3/4″ M	800 / 800	1	–
6686H5S1	1″ F	x 8	3/4″ M	800 / 1000	1	–
6686I5S1	1″ F	x 9	3/4″ M	800 / 1000	1	–
6686L5S1	1″ F	x 10	3/4″ M	800 / 1000	1	–
6686M5S1	1″ F	x 11	3/4″ M	1000 / 1000	1	–
6686N5S1	1″ F	x 12	3/4″ M	1000 / 1200	1	–
6686O5S1	1″ F	x 13	3/4″ M	1000 / 1200	1	–
6686P5S1	1″ F	x 14	3/4″ M	1000 / 1200	1	–
6687C5S1	1 1/4″ F	x 3	3/4″ M	600 / 600	1	–
6687D5S1	1 1/4″ F	x 4	3/4″ M	600 / 600	1	–
6687E5S1	1 1/4″ F	x 5	3/4″ M	600 / 800	1	–
6687F5S1	1 1/4″ F	x 6	3/4″ M	600 / 800	1	–
6687G5S1	1 1/4″ F	x 7	3/4″ M	800 / 800	1	–
6687H5S1	1 1/4″ F	x 8	3/4″ M	800 / 1000	1	–
6687I5S1	1 1/4″ F	x 9	3/4″ M	800 / 1000	1	–
6687L5S1	1 1/4″ F	x 10	3/4″ M	800 / 1000	1	–
6687M5S1	1 1/4″ F	x 11	3/4″ M	1000 / 1000	1	–
6687N5S1	1 1/4″ F	x 12	3/4″ M	1000 / 1200	1	–
6687O5S1	1 1/4″ F	x 13	3/4″ M	1000 / 1200	1	–
6687P5S1	1 1/4″ F	x 14	3/4″ M	1000 / 1200	1	–

666...S1

tech. broch. 01144

Return manifold, with built-in shut-off valves fitted for thermo-electric actuator.
Max. working pressure: 10 bar.
Temperature range: 0–80°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
666735S1	1 1/4″ F	x 3	3/4″ M	2	12
666745S1	1 1/4″ F	x 4	3/4″ M	2	12
666755S1	1 1/4″ F	x 5	3/4″ M	2	12
666765S1	1 1/4″ F	x 6	3/4″ M	2	–
666775S1	1 1/4″ F	x 7	3/4″ M	2	–
666785S1	1 1/4″ F	x 8	3/4″ M	2	–

667...S1

tech. broch. 01144

Flow manifold, with built-in flow meters and flow rate balancing valves.
Max. working pressure: 10 bar.
Temperature range: 0–80°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
667735S1	1 1/4″ F	x 3	3/4″ M	2	12
667745S1	1 1/4″ F	x 4	3/4″ M	2	12
667755S1	1 1/4″ F	x 5	3/4″ M	2	12
667765S1	1 1/4″ F	x 6	3/4″ M	2	–
667775S1	1 1/4″ F	x 7	3/4″ M	2	–
667785S1	1 1/4″ F	x 8	3/4″ M	2	–

668...S1

tech. broch. 01144

Pair of manifolds, with built-in flow meters and flow rate balancing valves and shut-off valves.
Max. working pressure: 10 bar.
Temperature range:0–80°C.
Outlet centre distance: 50 mm.

Code	Connections	Outlet No.	Outlets		
668735S1	1 1/4″ F	x 3	3/4″ M	1	6
668745S1	1 1/4″ F	x 4	3/4″ M	1	6
668755S1	1 1/4″ F	x 5	3/4″ M	1	5
668765S1	1 1/4″ F	x 6	3/4″ M	1	3
668775S1	1 1/4″ F	x 7	3/4″ M	1	3
668785S1	1 1/4″ F	x 8	3/4″ M	1	3

ACCESSORIES FOR DISTRIBUTION MANIFOLDS

668...S1

tech. broch. 01144

Off-centre by-pass assembly
with fixed setting 25 kPa (2.500 mm w.g.),
complete with pipe for manifold connection.
For manifolds 668...S1 series.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
668000S1	1" nut x 3/4" nut	1	10

391...S1

tech. broch. 01144

Pair of ball shut-off valves.
Female - male connections with union
with O-Ring seal.
With temperature gauge,
scale 0–80°C, Ø 40 mm.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
391167S1	1" x 1 1/4"	1	5
391177S1	1 1/4" x 1 1/4"	1	5

391...S1

tech. broch. 01144

Pair of ball shut-off valves.
Female - male connections with union
with O-Ring seal.
With temperature gauge connection.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
391067S1	1" x 1 1/4"	1	–
391077S1	1 1/4" x 1 1/4"	1	–

5020

tech. broch. 01144

Automatc air vent with hygroscopic plug.
In hot-stamped brass.
For manifolds end fittings 668...S1 series.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Max. working temperature: 110°C.

Code			
502043	1/2" M	10	100

5996

tech. broch. 01144

Flow end fitting complete with double radial
end fitting with two-position ball valve,
automatic air vent and fill/drain hose connection.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Temperature range: 0–100°C.

Code			
599674	1 1/4"	1	10

5996

tech. broch. 01144

Return end fitting complete with double radial
end fitting with three-position ball valve,
by-pass connection with plug and
fill/drain hose connection.
Max. working pressure: 10 bar.
Temperature range: 0–100°C.

Code			
599675	1 1/4"	1	10

ACCESSORIES FOR DISTRIBUTION MANIFOLDS

675

tech. broch. 01144

Push-fit thermometer for panel piping.
For pipes with outer diameter from 15 to 18 mm.
Thermometer scale: 5–50°C.
Thermometer fluid: alcohol.
Thermo-conductive paste supplied in package.

Code		
675900	10	100

658

tech. broch. 01144

Pair of brackets for use with boxes, 659 and 661 series or directly on the wall.
With screws and plugs.

Code		
658100	1	20

3642..S1

tech. broch. 01144

Reduction fitting.

Code			
364276S1	1″ F x 1 1/4″ M	2	10

386

tech. broch. 01144

Screw plug with nut, for manifold outlets.

Code			
386500	3/4″	10	–

680

DARCAL

tech. broch. 01144

Self-adjustable diameter fitting for single and multilayer plastic pipes.
Max. working pressure: 10 bar.
Temperature range:
5–80°C (PE-X)
5–75°C (Multilayer marked 95°C).

Code		$Ø_{inside}$	$Ø_{outside}$		
680507	3/4″	7,5– 8	10,5–12	10	100
680502	3/4″	7,5– 8	12 –14	10	100
680503	3/4″	8,5– 9	12 –14	10	100
680500	3/4″	9 – 9,5	14 –16	10	100
680501	3/4″	9,5–10	12 –14	10	100
680506	3/4″	9,5–10	14 –16	10	100
680515	3/4″	10,5–11	14 –16	10	100
680517	3/4″	10,5–11	16 –18	10	100
680524	3/4″	11,5–12	14 –16	10	100
680526	3/4″	11,5–12	16 –18	10	100
680535	3/4″	12,5–13	16 –18	10	100
680537	3/4″	12,5–13	18 –20	10	100
680544	3/4″	13,5–14	16 –18	10	100
680546	3/4″	13,5–14	18 –20	10	100
680555	3/4″	14,5–15	18 –20	10	100
680556	3/4″	15 –15,5	18 –20	10	100
680564	3/4″	15,5–16	18 –20	10	100
680505	3/4″	17	22,5	10	100

347...S1

tech. broch. 01144

Compression fitting for annealed copper, hard copper, brass, mild steel and stainless steel pipes. With O-Ring seal.
Specific to be used with manifolds 668...S1 series.
Max. working pressure: 10 bar.
Temperature range: -25–120°C.

Code			
347512S1	3/4″ - Ø 12	1	50
347514S1	3/4″ - Ø 14	1	50

DISTRIBUTION MANIFOLDS FOR RADIANT PANEL SYSTEMS

664

tech. broch. 01260

Pre-assembled distribution manifold.
Max. working pressure: 6 bar.
Temperature range: 5–60°C.
Outlet centre distance: 50 mm.

Equipped with:
- return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- flow manifold complete with flow meters with 0–5 l/m scale and flow rate balancing valves;
- end fittings with automatic air vent and drain cock;
- steel mounting brackets for use with box code 659..5 (**adjustable depth from 80 to 120 mm**) or for direct wall mounting.

Code	Connections	Outlet No.	Outlets		
6646B1	1″	x 2	3/4″ M	1	–
6646C1	1″	x 3	3/4″ M	1	–
6646D1	1″	x 4	3/4″ M	1	–
6646E1	1″	x 5	3/4″ M	1	–
6646F1	1″	x 6	3/4″ M	1	–
6646G1	1″	x 7	3/4″ M	1	–
6646H1	1″	x 8	3/4″ M	1	–
6646I1	1″	x 9	3/4″ M	1	–
6646L1	1″	x 10	3/4″ M	1	–
6646M1	1″	x 11	3/4″ M	1	–
6646N1	1″	x 12	3/4″ M	1	–
6646O1	1″	x 13	3/4″ M	1	–

NEW

Insulation for distribution manifolds 664 series.
For heating and cooling systems.
For use with box code 659..4
(**adjustable depth from 110 to 140 mm**).

Code			
CBN6646F1	for manifolds from 2 to 6 outlets	1	–
CBN6646N1	for manifolds from 7 to 12 outlets	1	–
CBN6646O1	for manifolds with 13 outlets	1	–

662

Pre-assembled distribution manifold.
Max. working pressure: 10 bar.
Temperature range: 5–80°C.
Outlet centre distance: 50 mm.

Equipped with:
- return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- flow manifold with micrometric preregulating valves;
- end fittings with automatic air vent and drain cock;
- polymer mounting brackets with adjustable centre distance for use with box 659 series or for direct wall mounting.

Code	Connections	Outlet No.	Outlets		
6626B6	1″	x 2	3/4″ M	1	–
6626C6	1″	x 3	3/4″ M	1	–
6626D6	1″	x 4	3/4″ M	1	–
6626E6	1″	x 5	3/4″ M	1	–
6626F6	1″	x 6	3/4″ M	1	–
6626G6	1″	x 7	3/4″ M	1	–
6626H6	1″	x 8	3/4″ M	1	–
6626I6	1″	x 9	3/4″ M	1	–
6626L6	1″	x 10	3/4″ M	1	–
6626M6	1″	x 11	3/4″ M	1	–
6626N6	1″	x 12	3/4″ M	1	–
6626O6	1″	x 13	3/4″ M	1	–

391

Pair of ball shut-off valves with O-Ring seal.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.

Code			
391066	1″	1	–

662

Off-centre by-pass assembly
with fixed setting 25 kPa (2.500 mm w.g.).
Max. working pressure: 10 bar.
Temperature range: -10–110°C.

Code			
662010		1	10

BOXES FOR DISTRIBUTION MANIFOLDS

659

tech. broch. 01144

Inspection wall box for distribution manifolds 349, 350, 592, 662, 663, 668...S1 and 671 series.
Wall or floor installation (with 660 series).
Closure with a push-fit clamp.
In painted sheet steel.
Adjustable depth from 110 to 140 mm.

Code	(h x w x d)		
659044	500 x 400 x 110–140	1	–
659064	500 x 600 x 110–140	1	–
659084	500 x 800 x 110–140	1	–
659104	500 x 1000 x 110–140	1	–
659124	500 x 1200 x 110–140	1	–

660

tech. broch. 01144

Floor installation kit for box 659 series.
Consisting of:
- 2 supports height cm. 20,
- 2 side panels,
- 1 pipe-bending bar.

Code			
660040	for 659044	1	–
660060	for 659064	1	–
660080	for 659084	1	–
660100	for 659104	1	–
660120	for 659124	1	–

659

tech. broch. 01144

Inspection wall box for distribution manifolds 349, 350, 592, 662 and 671 series.
Complete with specific support for manifold brackets.
Closure with a push-fit clamp.
In painted sheet steel.
Adjustable depth from 80 to 120 mm.

Code	(h x w x d)		
659045	500 x 400 x 80–120	1	–
659065	500 x 600 x 80–120	1	–
659085	500 x 800 x 80–120	1	–
659105	500 x 1000 x 80–120	1	–

661

tech. broch. 01144

Box for manifolds 662, 671 and 668...S1 series and regulating units 182 series.
With supports for installation on floor.
Closure with a push-fit clamp.
In painted sheet steel.
Adjustable depth from 110 to 150 mm.
Adjustable height from 270 to 410 mm.

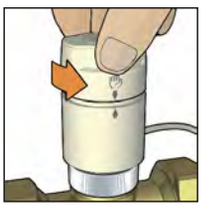
Code	(h x w x d)		
661045	500 x 400 x 110–150	1	–
661065	500 x 600 x 110–150	1	–
661085	500 x 800 x 110–150	1	–
661105	500 x 1000 x 110–150	1	–
661125	500 x 1200 x 110–150	1	–

675

Box with adjustable deph and heigth for manifolds 671 series.
Equipped with mounting brackets.
Closure with a push-fit clamp.
Adjustable depth: 80 to 120 mm.
Adjustable height: 235 to 325 mm.

Code	Dim. (h x w x d)		
675060	550 x 600 x 80–120	1	–
675080	550 x 800 x 80–120	1	–

THERMO-ELECTRIC ACTUATORS



6563

tech. broch. 01142

Thermo-electric actuator.
With manual opening and position indicator.
For distribution manifolds 670, 671, 668...S1 and 662..6 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Starting current (656344/54): ≤ 250 mA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–50°C.
Protection class: IP 40.
Cable length: 80 cm.

Code	Supply voltage V			
656312	230		1	10
656314	24		1	10
656302	230	without auxiliary microswitch	1	10
656304	24	without auxiliary microswitch	1	10

With low power consumption NEW

Code	Supply voltage V			
656354	24		1	10
656344	24	without auxiliary microswitch	1	10

6561

tech. broch. 01042

Thermo-electric actuator.
For distribution manifolds 670, 671, 668...S1 and 662..6 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Max. ambient temperature: 50°C.
Protection class: IP 44 (vertical stem).
Cable length: 80 cm.

Code	Supply voltage V			
656112	230		1	10
656114	24		1	10
656102	230	without auxiliary microswitch	1	10
656104	24	without auxiliary microswitch	1	10

6562

tech. broch. 01198

Thermo-electric actuator.
With opening position indicator.
Quick-coupling installation, with a clip adapter.
For distribution manifolds 670, 671, 668...S1 and 662..6 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

Code	Supply voltage V			
656212	230		1	10
656214	24		1	10
656202	230	without auxiliary microswitch	1	10
656204	24	without auxiliary microswitch	1	10

6564

tech. broch. 01198

Thermo-electric actuator
with low power consumption.
With opening position indicator.
Quick-coupling installation, with a clip adapter.
For distribution manifolds 670, 671, 668...S1 and 662..6 series. Normally closed.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Auxiliary microswitch contact rating: 0,8 A (230 V).
Power consumption: 3 W.
Starting current: ≤ 250 mA.
Ambient temperature range: 0–50°C.
Protection class: IP 54.
Cable length: 80 cm.

Code	Supply voltage V			
656412	230		1	10
656414	24		1	10
656402	230	without auxiliary microswitch	1	10
656404	24	without auxiliary microswitch	1	10

6205

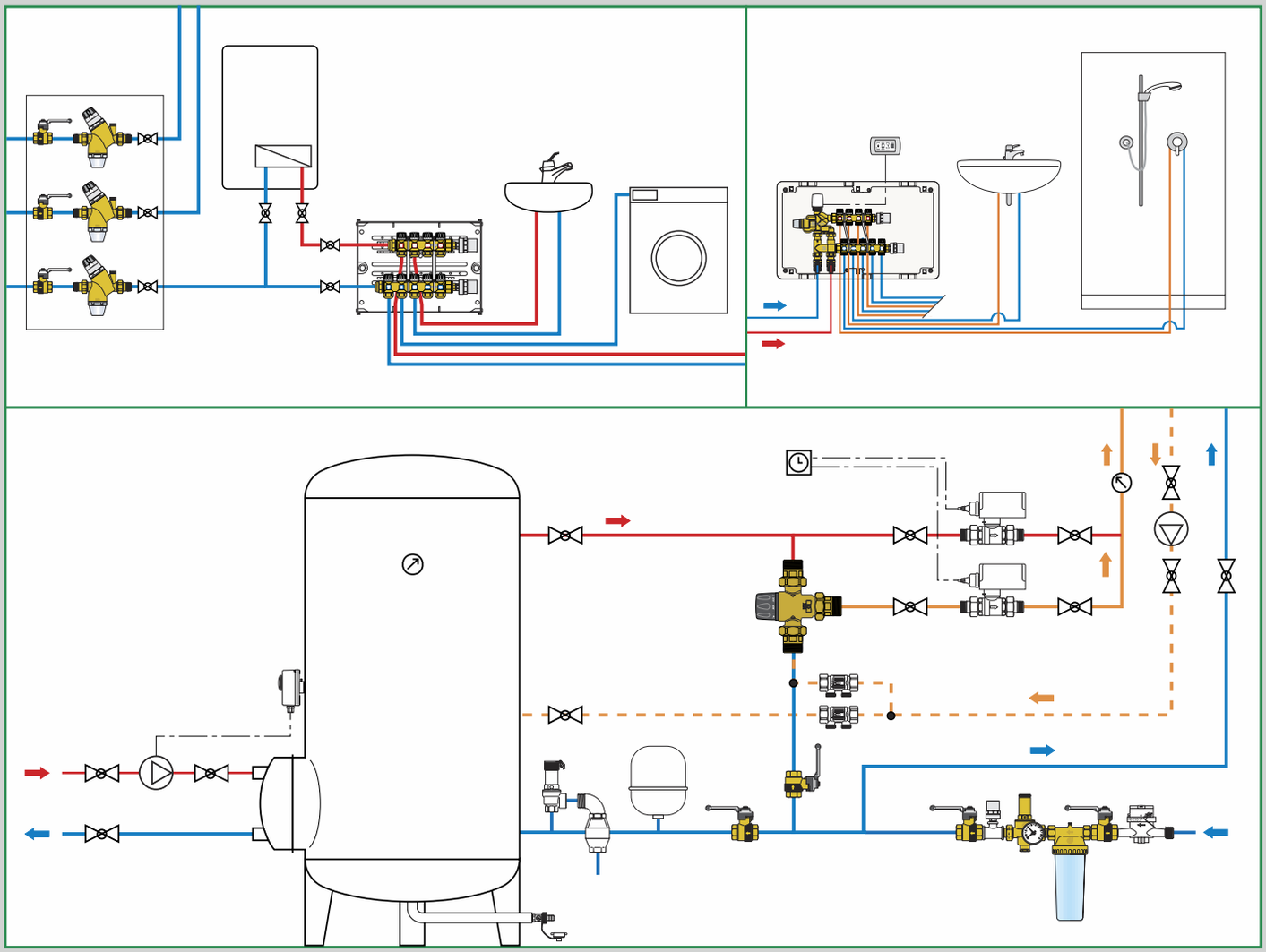
tech. broch. 01186

Control bar.
Supply: 230 V - 50/60 Hz.
Power consumption: 5,5 VA max (8 outputs).
Changeover contacts: 10 A.
Protection class: IP 30 (with rubber cable clamps).
Output command for pump.
Input for SUMMER - WINTER.
Input for timer.

Code			
620542	4 canali	1	–
620582	8 canali	1	–

COMPONENTS FOR DOMESTIC WATER SYSTEMS

This diagram is just an indication



Pressure reducing valves
Pressure reducing and stabilising valves
Ball valves with built-in check valve, BALLSTOP
Thermostatic mixing valves - Tempering valves
Control unit for domestic hot water temperature
Electronic mixing valve with programmable thermal disinfection, LEGIOMIX® - Anti-scald device
Unit for temperature control and thermal disinfection, LEGIOFLOW® - Timer for valve operation
Multi-function thermostatic regulator
Strainers cartridges and housing
Water hammer arresters, ANTISHOCK
Safety groups - Temperature and pressure relief valve - Flow limiter
Pre-assembled domestic water distribution manifolds
Anti-freeze safety device

Domestic Water Sizer

DOMESTIC WATER SYSTEM SIZER ALSO FOR SMARTPHONE
Available on www.caleffi.com and app for smartphone.
Download the version for your iOS and Android® mobile phone.

INCLINED PRESSURE REDUCING VALVES

5330

tech. broch. 01024

Inclined pressure reducing valve.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.

Code			
533041	1/2″	1	20
533051	3/4″	1	20

5331

tech. broch. 01024

Inclined pressure reducing valve
for safety group.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.

Code			
533151	3/4″ M x nut 3/4″ F	1	25

5332

tech. broch. 01024

Inclined pressure reducing valve.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
With pressure gauge: 0–10 bar.

Code			
533241	1/2″	1	20
533251	3/4″	1	20

5334

tech. broch. 01024

Inclined pressure reducing valve.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
With 1/4″ F pressure gauge connection.

Code			
533441	1/2″	1	20
533451	3/4″	1	20
533461	1″	1	25

5336

tech. broch. 01024

Inclined pressure reducing valve
with compression ends.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.

Code			
533641	Ø 15	1	25
533651	Ø 22	1	25

5337

tech. broch. 01024

Inclined pressure reducing valve
with compression ends.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
With 1/4″ F pressure gauge connection.

Code			
533741	Ø 15	1	20
533751	Ø 22	1	20

5338

tech. broch. 01024

Inclined pressure reducing valve
with compression ends.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
With pressure gauge: 0–10 bar.

Code			
533841	Ø 15	1	20
533851	Ø 22	1	20

5330

Spare cartridge.
For inclined pressure reducing valves
5330, 5331, 5332, 5334, 5335, 5336, 5337,
5338 and 5339 series.

Code			
533000		1	100

INCLINED PRESSURE REDUCING VALVES

5335

Inclined pressure reducing valve.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Max. upstream pressure: 1600 kPa.
Downstream setting pressure range: 100–600 kPa.
Max. working temperature: 40°C.
With 1/4" F pressure gauge connection.

AS 1357.2
C of C 02467

Code			
533545 AUS	1/2"	1	25
533555 AUS	3/4"	1	25

5335

Three-way inclined pressure reducing valve.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Interchangeable outlet, with plug.
Max. upstream pressure: 1600 kPa.
Downstream setting pressure range: 100–600 kPa.
Max. working temperature: 40°C.

AS 1357.2
C of C 02467

Code			
533550 AUS	3/4"	1	30

5339

Inclined pressure reducing valve with compression ends and built-in safety relief valve.

Pressure reducing valve.
CR dezincification resistant alloy body.
Replaceable cartridge and strainer.
Max. upstream pressure: 1600 kPa.
Downstream setting pressure range: 100–600 kPa.
Max. working temperature: 40°C.

Safety relief valve.
With stainless steel seat.
CR dezincification resistant alloy body.

SABS APPROVED
SANS 198

Code			
533944	Ø 15	1	25
533954	Ø 22	1	25

INCLINED PRESSURE REDUCING VALVES FOR HIGH TEMPERATURE

5330..H

tech. broch. 01252

Inclined pressure reducing valve.
For high temperature.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

Code			
533041H	1/2″	1	20
533051H	3/4″	1	20

5331..H

tech. broch. 01252

Inclined pressure reducing valve
for safety group.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

Code			
533159H	Ø 22 x nut 3/4″ F	1	25

5332..H

tech. broch. 01252

Inclined pressure reducing valve.
For high temperature.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With pressure gauge: 0–10 bar.
Certified to EN 1567.

Code			
533241H	1/2″	1	20
533251H	3/4″	1	20

5332..H

tech. broch. 01252

Inclined pressure reducing valve.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With pressure gauge: 0–10 bar.
Certified to EN 1567.

Code			
533241H LTC	1/2″	1	20
533251H LTC	3/4″	1	20

5334..H

tech. broch. 01252

Inclined pressure reducing valve.
For high temperature.
Replaceable cartridge and strainer.
Brass body. Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With 1/4″ F pressure gauge connection.
Certified to EN 1567.

Code			
533441H	1/2″	1	20
533451H	3/4″	1	20

5334..H

tech. broch. 01252

Inclined pressure reducing valve.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With 1/4″ F pressure gauge connection.
Certified to EN 1567.

Code			
533441H LTC	1/2″	1	20
533451H LTC	3/4″	1	20
533461H LTC	1″	1	20

INCLINED PRESSURE REDUCING VALVES FOR HIGH TEMPERATURE

5336..H

tech. broch. 01252

Inclined pressure reducing valve
with compression ends.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

Code			
533641H	Ø 15	1	25
533651H	Ø 22	1	25

5337..H

tech. broch. 01252

Inclined pressure reducing valve
with compression ends.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With 1/4" F pressure gauge connection.
Certified to EN 1567.

Code			
533741H	Ø 15	1	20
533751H	Ø 22	1	20
533761H	Ø 28	1	20

5338..H

tech. broch. 01252

Inclined pressure reducing valve
with compression ends.
For high temperature.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Chrome plated.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1–5,5 bar.
Max. working temperature: 80°C.
With pressure gauge: 0–10 bar.
Certified to EN 1567.

Code			
533841H	Ø 15	1	20
533851H	Ø 22	1	20
533861H	Ø 28	1	20

5335..H

Inclined pressure reducing valve.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Max. inlet pressure: 2000 kPa.
Downstream setting pressure range:
100–600 kPa.
Max. working temperature: 80°C.
With 1/4" F pressure gauge connection.

AS 1357.2
C of C 02467

Code			
533545H AUS	1/2"	1	25
533555H AUS	3/4"	1	25
533565H AUS	1"	1	10

5335..H

Three-way inclined pressure reducing valve.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Interchangeable outlet, with plug.
Max. inlet pressure: 2000 kPa.
Downstream setting pressure range:
100–600 kPa.
Max. working temperature: 80°C.

AS 1357.2
C of C 02467

Code			
533550H AUS	3/4"	1	30

5335..H

Two-way inclined pressure reducing valve.
Replaceable cartridge and strainer.
CR dezincification resistant alloy body.
Interchangeable outlet, with plug.
Max. inlet pressure: 2000 kPa.
Downstream setting pressure: 500 kPa.
Max. working temperature: 80°C.

AS 1357.2
C of C 02467

Code			
533551H AUS	3/4"	1	30

NEW

5330..H

Spare cartridge.
For inclined pressure reducing valves
5330, 5331, 5332, 5334, 5335, 5336, 5337,
5338 and 5339 series.

Code			
533000H		1	100

PRE-ADJUSTABLE PRESSURE REDUCING VALVES

5350

tech. broch. 01085

Pressure reducing valve
with self-contained replaceable cartridge.
CR dezincification resistant alloy body.
With pressure regulating scale for manual pressure adjustment. Male union connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
Certified to EN 1567.

With pressure gauge 0–10 bar

Code			
535041	1/2″	1	5
535051	3/4″	1	5
535061	1″	1	5
535075*	1 1/4″ with 1″ reduced cartridge	1	5

** Without DVGW certification*

With 1/4″ F pressure gauge connection

Code			
535040	1/2″	1	5
535050	3/4″	1	5
535060	1″	1	5
535074*	1 1/4″ with 1″ reduced cartridge	1	5

** Without DVGW certification*

5350

tech. broch. 01085

Pressure reducing valve
with self-contained replaceable cartridge.
CR dezincification resistant alloy body.
With pressure regulating scale for manual pressure adjustment. Male union connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
Certified to EN 1567.

With pressure gauge 0–10 bar

Code			
535071	1 1/4″	1	4
535081	1 1/2″	1	4
535091	2″	1	4

With 1/4″ F pressure gauge connection

Code			
535070	1 1/4″	1	4
535080	1 1/2″	1	4
535090	2″	1	4

5350

Pressure reducing valve
with self-contained replaceable cartridge.
CR dezincification resistant alloy body.
With pressure regulating scale for manual pressure adjustment.
Ø 22 mm with compression ends.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.

With 1/4″ F pressure gauge connection

Code			
535022	Ø 22	1	10

5351

tech. broch. 01085

Pressure reducing valve with self-contained replaceable cartridge. Brass body.
With pressure regulating scale for manual pressure adjustment.
Stainless steel strainer cartridge with transparent housing.
Male union connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–6 bar.
Max. working temperature: 40°C.
Strainer mesh size Ø: 0,28 mm.
Certified to EN 1567.
With replacement strainer and key to service strainer and cartridge.

With stainless steel pressure gauge 0–10 bar

Code			
535141	1/2″	1	5
535151	3/4″	1	5
535161	1″	1	5

With 1/4″ F pressure gauge connection

Code			
535140	1/2″	1	5
535150	3/4″	1	5
535160	1″	1	5

5350

Spare cartridge and key
to service strainer and cartridge.
For pressure reducing valves 5350 and 5351 series.

Code			
535004	1/2″ - 3/4″	1	8
535006	1″	1	8
535017	1 1/4″ (535074 - 535075)	1	–
535007	1 1/4″ - 1 1/2″ - 2″	1	–
R52484	key to service strainer and cartridge	1	–

PRE-ADJUSTABLE PRESSURE REDUCING VALVES FOR HIGH TEMPERATURE

NEW

5350..H

tech. broch. 01265

Pressure reducing valve
with self-contained replaceable cartridge.
For high temperature.
CR dezincification resistant alloy body.
With pressure regulating scale
for manual pressure adjustment.
Male union connections.
Max. upstream pressure: 16 bar.
Downstream setting pressure
range: 1–6 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

With pressure gauge 0–10 bar

Code			
535041H	1/2″	1	5
535051H	3/4″	1	5
535061H	1″	1	5
535071H	1 1/4″	1	4
535081H	1 1/2″	1	4
535091H	2″	1	4

With 1/4″ F pressure gauge connection

Code			
535040H	1/2″	1	5
535050H	3/4″	1	5
535060H	1″	1	5
535070H	1 1/4″	1	4
535080H	1 1/2″	1	4
535090H	2	1	4

5350..H

tech. broch. 01265

Pressure reducing valve
with self-contained replaceable cartridge.
For high temperature.
CR dezincification resistant alloy body.
With pressure regulating scale
for manual pressure adjustment.
Compression ends connections.
Max. upstream pressure: 16 bar.
Downstream setting pressure
range: 1–6 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

With 1/4″ F pressure gauge connection

Code			
535015H	Ø 15	1	5
535022H	Ø 22	1	5
535028H	Ø 28	1	5

5350..H

Spare cartridge and key
to service strainer and cartridge.
For pressure reducing valves 5350 and 5351 series.

Code			
535006H	1/2″ - 3/4″ - 1″	1	8
535009H	1 1/4″ - 1 1/2″ - 2″	1	–

5350..H

With pressure gauge 0–10 bar

Code			
535041H AUS	1/2″	1	5
535051H AUS	3/4″	1	5
535061H AUS	1″	1	5
535071H AUS	1 1/4″	1	4
535081H AUS	1 1/2″	1	4
535091H AUS	2″	1	4

With 1/4″ F pressure gauge connection

Code			
535040H AUS	1/2″	1	5
535050H AUS	3/4″	1	5
535060H AUS	1″	1	5
535070H AUS	1 1/4″	1	4
535080H AUS	1 1/2″	1	4
535090H AUS	2	1	4

PRESSURE REDUCING VALVES

5360

tech. broch. 01026

Pressure reducing valve with replaceable cartridge.
CR dezincification resistant alloy body.
Male union connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 0,5–6 bar.
On request 6–10 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

With pressure gauge 0–10 bar

Code			
536041	1/2″	1	5
536051	3/4″	1	5
536061	1″	1	5
536071	1 1/4″	1	4
536081*	1 1/2″	1	4

** Without DVGW - SVGW certifications*

With 1/4″ F pressure gauge connection

Code			
536040	1/2″	1	5
536050	3/4″	1	5
536060	1″	1	5
536070	1 1/4″	1	4
536080*	1 1/2″	1	4

** Without DVGW - SVGW certifications*

5362

tech. broch. 01026

Pressure reducing valve with replaceable cartridge.
CR dezincification resistant alloy body.
Female connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 0,5–6 bar.
Max. working temperature: 80°C.

With pressure gauge 0–10 bar

Code			
536241	1/2″	1	5
536251	3/4″	1	5
536261	1″	1	5

With 1/4″ F pressure gauge connection

Code			
536240	1/2″	1	5
536250	3/4″	1	5
536260	1″	1	5

537

Soldering union connections.

Code			
537015	3/4″ x Ø 15	1	–
537022	1″ x Ø 22	1	–
537028	1 1/4″ x Ø 28	1	–
537035	1 1/2″ x Ø 35	1	–

5365

tech. broch. 01026

Pressure reducing valve with replaceable cartridge.
Bronze body. Male union connections.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 0,5–6 bar.
On request 6–10 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

With double pressure gauge in glycerine bath
Pressure gauge upstream: 0–25 bar.
Pressure gauge downstream: 0–10 bar.

Code			
536581	1 1/2″	1	–
536591	2″	1	–

With 1/4″ F double pressure gauge connection

Code			
536580	1 1/2″	1	–
536590	2″	1	–

5366

tech. broch. 01026

Pressure reducing valve with replaceable cartridge.
Bronze body. Flanged connections, PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 0,5–6 bar.
On request 6–10 bar.
Max. working temperature: 80°C.

With double pressure gauge in glycerine bath
Pressure gauge upstream: 0–25 bar.
Pressure gauge downstream: 0–10 bar.

Code			
536660	DN 65	1	–

5360

Spare cartridge
for pressure reducing valves
5360, 5362, 5365 and 5366 series.

Code			
536004	1/2″	1	–
536005	3/4″ - 1″	1	–
536007	1 1/4″ - 1 1/2″ (5360)	1	–
536008	1 1/2″ (5365) - 2″ - DN 65	1	–

PRESSURE REDUCING AND STABILISING VALVES

539

tech. broch. 01188

Pressure reducing valve.
CR dezincification resistant alloy body.
Supplied with two female - male fittings.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–5,5 bar.
Factory set: 3 bar.
Max. working temperature: 80°C.
Certified to EN 1567.

With 1/4" F double pressure gauge connection

Code			
539250	3/4"	1	20

576

tech. broch. 01183

Pressure reducing valve.
Cast iron body, PN 16. Flanged connections.
To be coupled with flat counterflanges EN 1092-1:
DN 80–DN 150, PN 16;
DN 200, PN 10.
Max. upstream pressure: 16 bar.
Downstream setting pressure range: 1,5–6 bar.
On request 6–12 bar.
Supplied with double pressure gauge: 0–16 bar.

* For combination with Y-strainer 579 series see page 155

Code			
576080	DN 80	1	–
576100	DN 100	1	–
576120	DN 125	1	–
576150	DN 150	1	–
576200	DN 200	1	–

578

Pilot operated pressure reducing valves.
Cast iron body, PN 25. Flanged connections.
To be coupled with flat counterflanges
EN 1092-1: DN 65–DN 150, PN 16;
DN 200–DN 300, PN 10.
Max. upstream pressure: 25 bar.
Downstream setting pressure range: 1–20 bar.
With pressure gauges.

Code			
578060	DN 65	1	–
578080	DN 80	1	–
578100	DN 100	1	–
578120	DN 125	1	–
578150	DN 150	1	–
578200	DN 200	1	–
578250	DN 250	1	–
578300	DN 300	1	–

BALL VALVE WITH BUILT-IN CHECK VALVE

3230 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female connections.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
323040	1/2″	10	–
323050	3/4″	10	–
323060	1″	4	–

3230 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female connections.
Lever handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
323070	1 1/4″	4	–
323080	1 1/2″	2	–
323090	2″	1	–

332 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Male - female connections.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
332400	1/2″ M x 1/2″ F	10	–

333 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female - nut connection.
Drilled tamper-proof safety nut.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

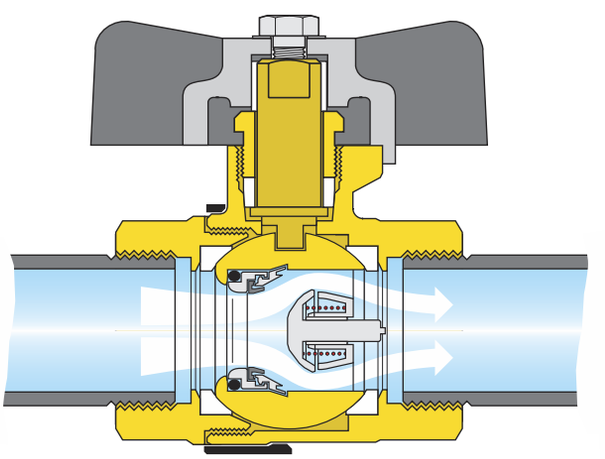
Code			
333400	1/2″ F x nut 3/4″ F	10	–
333500	3/4″ F x nut 3/4″ F	10	–

334 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Male - nut connection.
Drilled tamper-proof safety nut.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

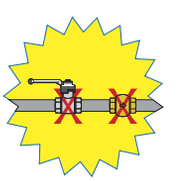
Code			
334400	1/2″ M x nut 3/4″ F	10	–
334500	3/4″ M x nut 3/4″ F	10	–



BALLSTOP

TWO VALVES

IN ONE



THERMOSTATIC MIXING VALVES FOR SMALL APPLICATIONS

520

tech. broch. 01064

Adjustable thermostatic mixing valve.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code		Temperature adjustment	Kv (m³/h)		
520430	1/2″	30–48°C	1,30	1	50
520440	1/2″	40–60°C	1,30	1	50
520530	3/4″	30–48°C	1,80	1	50
520540	3/4″	40–60°C	1,80	1	50
520630	1″	30–48°C	2,75	1	10
520640	1″	40–60°C	2,75	1	10

522

tech. broch. 01064

Adjustable thermostatic mixing valve.
For hot water storage heaters.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code		Temperature adjustment	Kv (m³/h)		
522430	1/2″	30–48°C	1,30	1	15
522440	1/2″	40–60°C	1,30	1	15

521

tech. broch. 01050

Adjustable **anti-scale** thermostatic mixing valve.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 14 bar.
Max. inlet temperature: 85°C.
Certified to EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521400	1/2″	30–65°C	2,6	1	10
521500	3/4″	30–65°C	2,6	1	10

521

tech. broch. 01050

Adjustable **anti-scale** thermostatic mixing valve with check valves.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 14 bar.
Max. inlet temperature: 85°C.
Certified to EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521503	3/4″	30–65°C	2,6	1	10

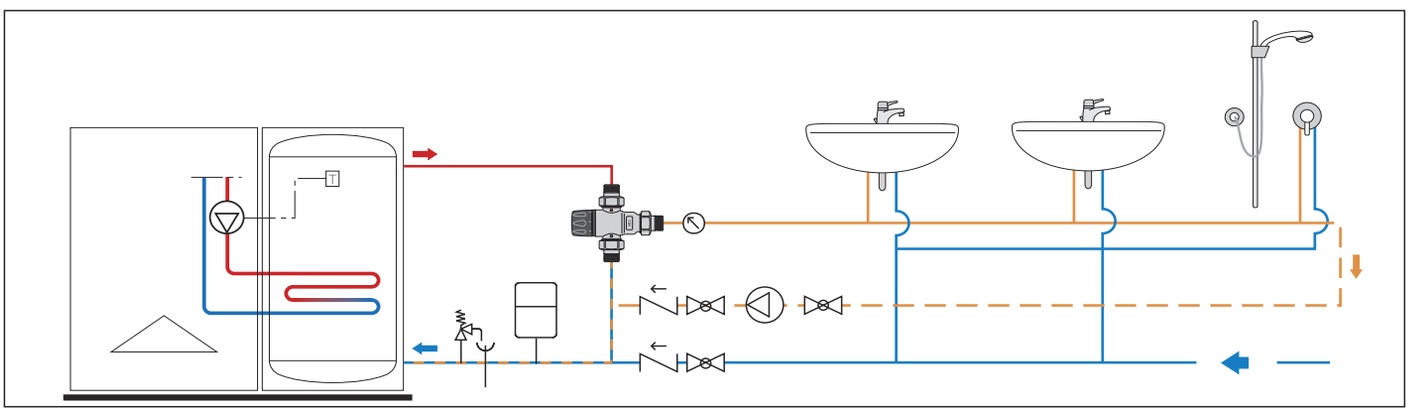
521

tech. broch. 01050

Adjustable **anti-scale** thermostatic mixing valve with check valves, strainers at the inlets and compression ends.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 14 bar.
Max. inlet temperature: 85°C.
Certified to EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521115	Ø 15	30–65°C	2,6	1	10
521122	Ø 22	30–65°C	2,6	1	10

Application diagram of thermostatic mixing valve 521 series



TEMPERING VALVE FOR INSTALLATION AT THE POINT OF DISTRIBUTION

5219

tech. broch. 01194

Tempering valve adjustable with knob.
For temperature control at the point of distribution.
With thermal shut-off function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code		Temperature adjustment	Kv (m³/h)		
521934	1″	35–65°C	1,5	1	10
521935	3/4″	35–65°C	1,7	1	10
521936	1″	35–65°C	3,0	1	5

With check valves and strainers

Code		Temperature adjustment	Kv (m³/h)		
521914	1/2″	35–65°C	1,5	1	10
521915	3/4″	35–65°C	1,7	1	10
521916	1″	35–65°C	3,0	1	5

5218

tech. broch. 01193

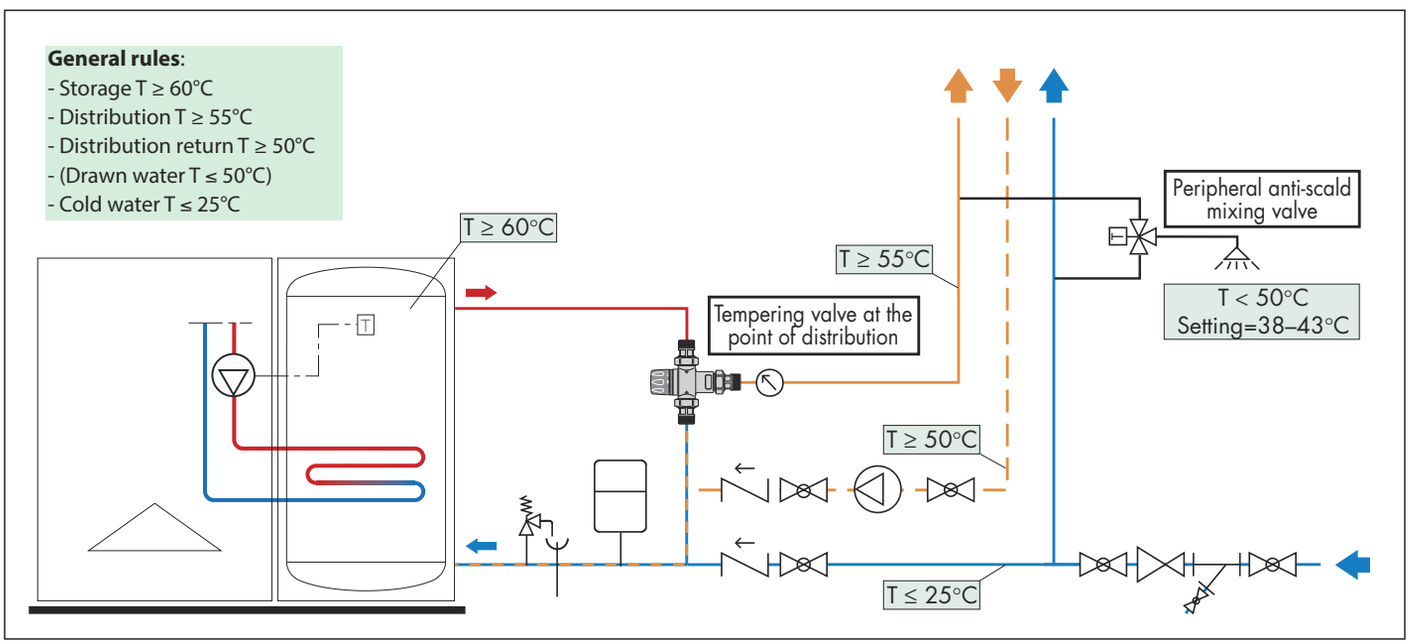
Tempering valve adjustable with knob,
with check valves and strainers.
Specific to control the temperature at the point of distribution.
With thermal shut-off function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.
Certified to EN 15092.

Code		Temperature adjustment	Kv (m³/h)		
521814	1/2″	45–65°C	1,5	1	10
521815	3/4″	45–65°C	1,7	1	10
521816	1″	45–65°C	3,0	1	5

European certification

European standard EN 15092 "***Inline hot water supply tempering valves. - Tests and requirements***" specifies the performance characteristics for tempering valves installed at the point of distribution in domestic water systems made in accordance with the recent European standards EN 806-1/2/3/4/5.
The 5218 series tempering valves are certified as compliant with these standards by the certification agency Buildcert and DTC (UK).

Application diagram of thermostatic mixing valve 5218 series



ANTI-SCALD THERMOSTATIC MIXING VALVES FOR INSTALLATION AT THE POINT OF USE

5213 tech. broch. 01092

Adjustable thermostatic mixing valve with check valves and strainers at the inlets.
Enhanced thermal performance device with anti-scald safety function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 85°C.
Certified to NHS D08, BS 7942, EN 1111 and EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521304	1/2″	30–50°C	1,5	1	10
521303	3/4″	30–50°C	1,7	1	10

5213 tech. broch. 01092

Adjustable thermostatic mixing valve with check valves, strainers and compression ends.
Enhanced thermal performance device with anti-scald safety function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 85°C.
Certified to NHS D08, BS 7942, EN 1111 and EN 1287.

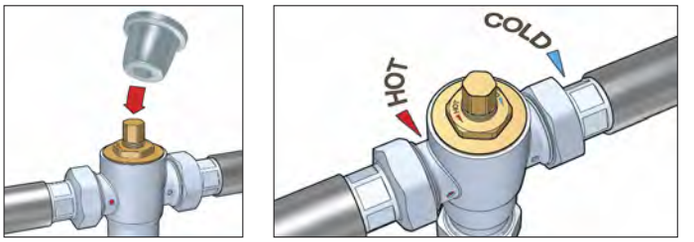
Code		Temperature adjustment	Kv (m³/h)		
521315	Ø 15	30–50°C	1,5	1	10
521322	Ø 22	30–50°C	1,7	1	10

5217 tech. broch. 01145

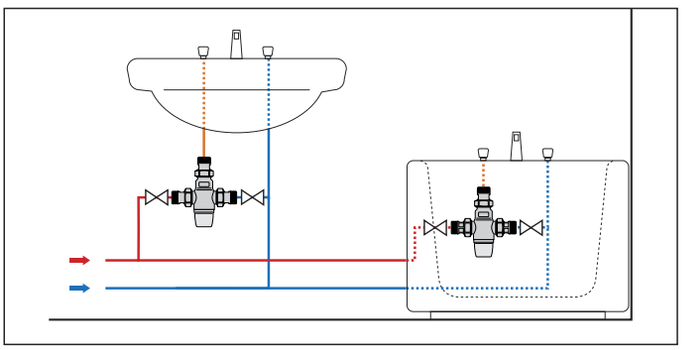
Thermostatic mixing valve, adjustable with knob, with check valves and strainers at the inlets.
Enhanced thermal performance device with anti-scald safety function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. inlet temperature: 85°C.
Certified to NF 079 Doc. 8.

Code		Temperature adjustment	Kv (m³/h)		
521714	1/2″	30–50°C	1,50	1	10
521713	3/4″	30–50°C	1,85	1	10

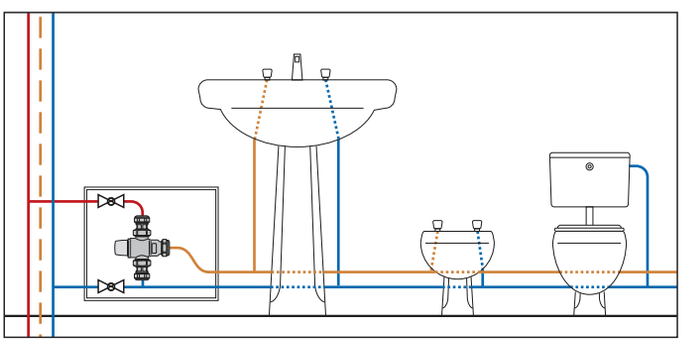
Adjustment temperature of mixing valve 5213 series



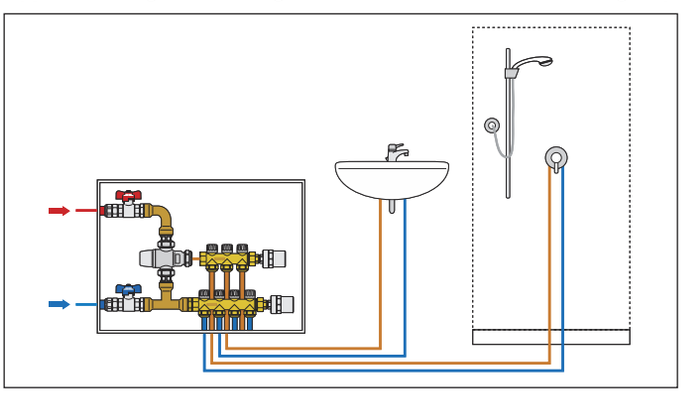
Application diagram of mixing valve 5213 series at point of use



Application diagram of mixing valve 5213 series



Application diagram of mixing valve 5213 series with distribution group



Pre-formed shell insulation for 1/2″ and 3/4″ thermostatic mixing valves 5213, 5217, 5218 and 5219 series.

Code		
CBN521814	1	–
CBN521815	1	–

ANTI-SCALD TEMPERING AND THERMOSTATIC MIXING VALVES

5213

Adjustable anti-scald tempering valve with check valves and strainers at the inlets.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 85°C.
Certified to AS 4032.2, NHS D08, BS 7942, EN 1111 and EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521312 AUS	DN 15	30–50°C	1,5	1	10
521319 AUS	DN 20	30–50°C	1,7	1	10

5213

Adjustable thermostatic mixing valve with check valves and strainers.
Enhanced thermal performance device with anti-scald safety function.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 85°C.
Certified to AS 4032.1, NHS D08, BS 7942, EN 1111 and EN 1287.

Code		Temperature adjustment	Kv (m³/h)		
521312TM AUS	DN 15	30–50°C	1,5	1	10
521319TM AUS	DN 20	30–50°C	1,7	1	10

5213

Adjustable thermostatic mixing valve with isolating valves, check valves and strainers at the inlets.
Enhanced thermal performance device with anti-scald safety function.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 85°C.
Certified to AS 4032.1.

Code		Temperature adjustment	Kv (m³/h)		
521312TMX AUS	1/2"	30–50°C	1,3	1	10
521319TMX AUS	3/4"	30–50°C	1,4	1	10

"L" PATTERN ADJUSTABLE THERMOSTATIC MIXING VALVE

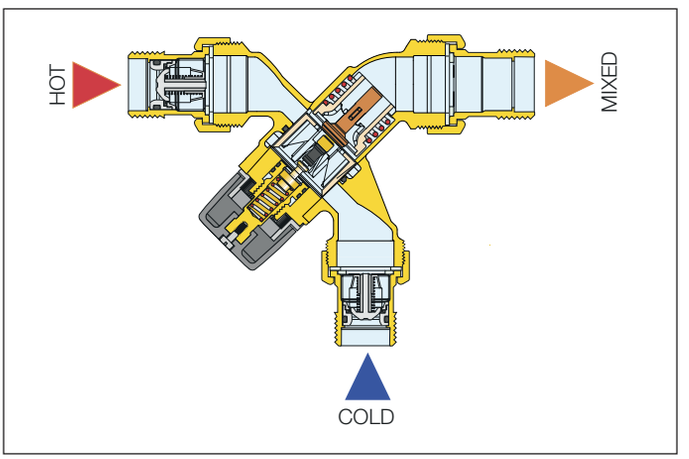
NEW

5200

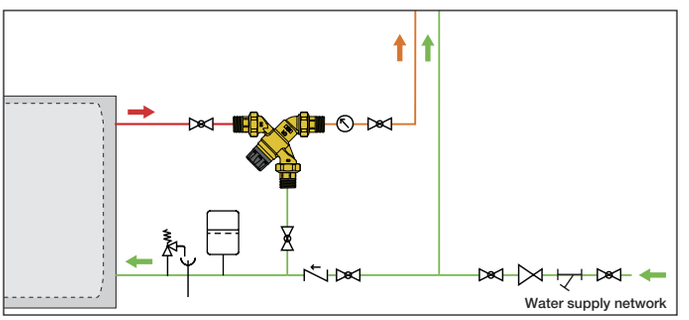
tech. broch. 01266

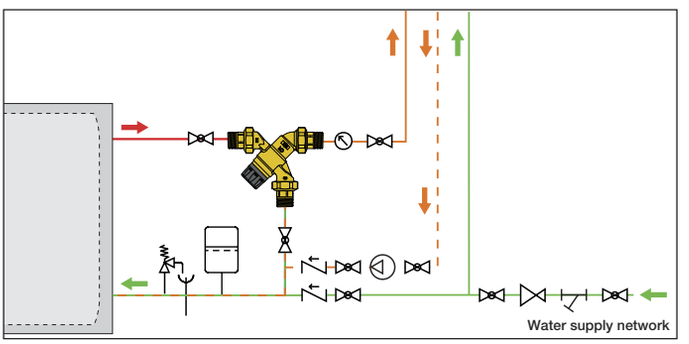
Adjustable thermostatic mixing valve with knob, complete with check valves and strainers at the inlets.
CR dezincification resistant alloy body.
Male union connections.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.
Certified to EN 1111 and EN 1287.

Code	Body DN	Conn.	Temperature adjustment	Kv (m³/h)		
520040	15	1/2"	35–65°C	1,5	1	10
520050	20	3/4"	35–65°C	1,7	1	10
520060	25	1"	35–65°C	3,0	1	5



Application diagrams





CONTROL UNIT FOR DOMESTIC HOT WATER TEMPERATURE

NEW

5201

tech. broch. 01267

Control unit dor domestic hot water temperature at the point of distribution.
Consisting of:
- thermostatic mixing valve with thermal shut-off function,
- tee for cold water connection complete with check valves.

Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code	Body DN	Conn.	Temperature adjustment	Kv (m³/h)		
520150	20	3/4"	35–65°C	1,7	1	–
520160	25	1"	35–65°C	3,0	1	–

520

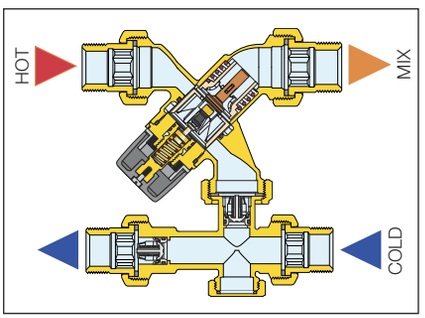
tech. broch. 01267

Accessory kit for recirculation connection complete with check valves.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code	Body DN	Conn.		
520005	20	3/4"	1	–

Specifications

The control unit for domestic hot water temperature is equipped with a high performance thermostatic mixing valve with a thermal shut-off function.
This makes it possible to maintain a flow temperature at the distribution point that is perfectly stable at the required value.



The domestic hot water temperature control unit allows easy **connection between pipes serving the domestic hot water and storage system**, making it possible to minimise space requirements for installation. The unit is supplied with the **check valves that allow correct operation of the mixing valve in the presence of recirculation**. The group's modularity makes it extremely flexible, since it allows orientation of the various pipe connections in accordance with installation requirements. The shut-off valves with connection ports and temperature gauge on the mixed water outlet facilitate commissioning, checking and maintenance operations.

5201

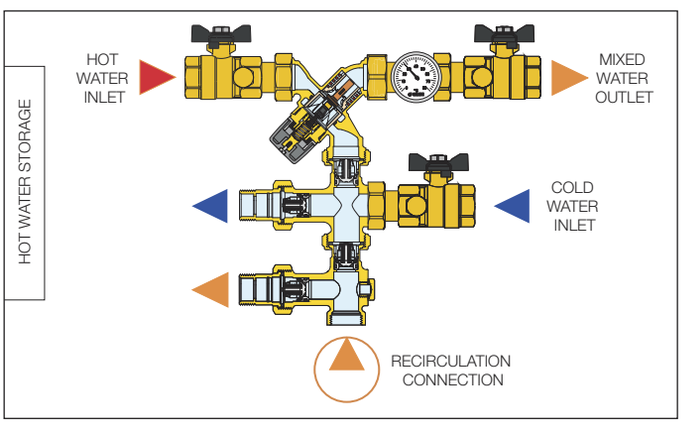
tech. broch. 01267

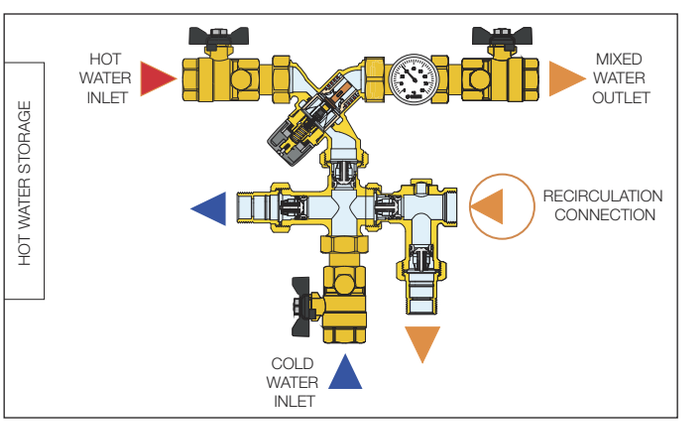
Control unit for domestic hot water temperature at the point of distribution, complete with recirculation connection . Consisting of:
- thermostatic mixing valve with thermal shut-off function,
- tee for cold water connection complete with check valves,
- kit for recirculation connection complete with check valves,
- shut-off valves,
- temperature gauge with pocket on the mixed water outlet.

Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

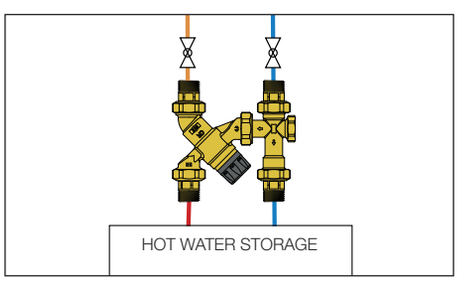
Code	Body DN	Conn.	Temperature adjustment	Kv (m³/h)		
520155	20	3/4"	35–65°C	1,7	1	–

Interchangeable cold/recirculation connections

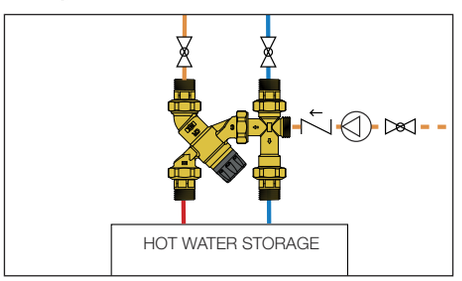




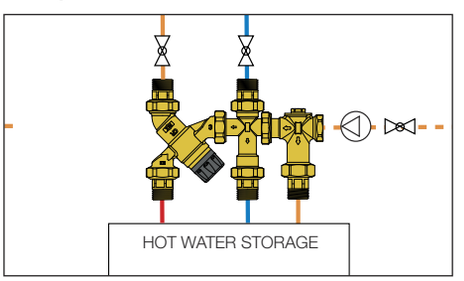
Without recirculation circuit



Storage without recirculation connection



Storage with recirculation connection



THERMOSTATIC MIXING VALVES FOR MEDIUM-LARGE APPLICATIONS

5231

tech. broch. 01256

Adjustable thermostatic mixing valve,
for centralised systems.
CR dezincification resistant alloy body.
Antiscale inner regulator
in technopolymer.
Max. working pressure: 14 bar.
Max. inlet temperature: 90°C.

Code		Temperature adjustment	Kv (m³/h)		
523140	1/2″	35–65°C	4,3	1	5
523150	3/4″	35–65°C	4,5	1	5
523160	1″	35–65°C	5,5	1	–
523170	1 1/4″	35–65°C	7,6	1	–
523180	1 1/2″	35–65°C	11,0	1	–
523190	2″	35–65°C	13,3		

With check valves and compression ends

Code		Temperature adjustment	Kv (m³/h)		
523162	Ø 28″	35–65°C	7,6	1	–

5230

tech. broch. 01080

Adjustable thermostatic mixing valve,
with replaceable cartridge,
for centralised systems.
Brass body.
Max. working pressure: 14 bar.
Max. inlet temperature: 85°C.

Code		Temperature adjustment	Kv (m³/h)		
523040	1/2″	30–65°C	4,0	1	–
523050	3/4″	30–65°C	4,5	1	–
523060	1″	30–65°C	6,9	1	–
523070	1 1/4″	30–65°C	9,1	1	–
523080	1 1/2″	36–60°C	14,5	1	–
523090	2″	36–60°C	19,0	1	–

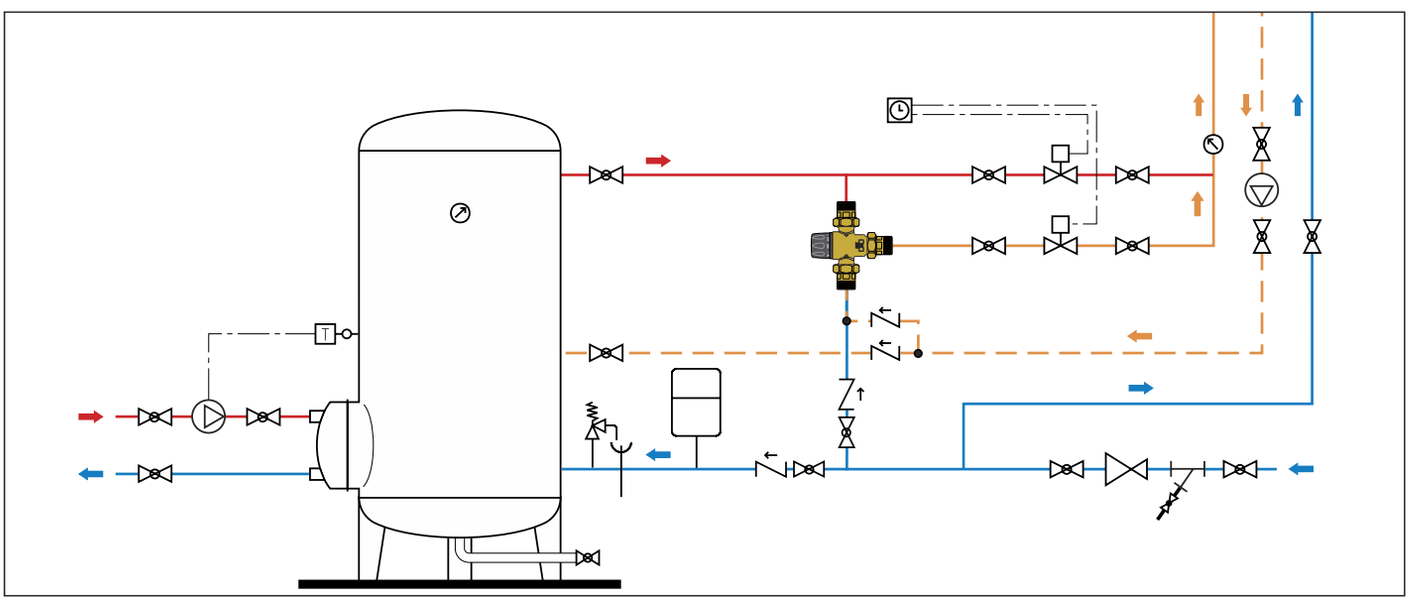
With check valves

Code		Temperature adjustment	Kv (m³/h)		
523043	1/2″	30–65°C	4,0	1	–
523053	3/4″	30–65°C	4,5	1	–
523063	1″	30–65°C	6,9	1	–
523073	1 1/4″	30–65°C	9,1	1	–

With check valves and compression ends

Code		Temperature adjustment	Kv (m³/h)		
523052	Ø 22	30–65°C	4,5	1	–
523062	Ø 28	30–65°C	6,9	1	–

Application diagram of mixing valve 5231 series



THERMOSTATIC MIXING VALVE FOR MEDIUM-LARGE APPLICATIONS

524

Adjustable thermostatic mixing valve for centralised systems.
With recirculation connection.
Male threaded connections.
Brass body.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code	Body DN		Temperature adjustment	Kv (m³/h)		
524400*	15	1 1/8"	30–65°C	1,4	1	–
524500	20	1 1/4"	30–65°C	2,5	1	–
524600	25	1 1/2"	30–65°C	4,0	1	–
524700	32	2"	30–65°C	7,7	1	–
524800	40	2 1/4"	36–60°C	11,5	1	–
524900	50	2 3/4"	36–60°C	15,0	1	–

* *Without recirculation connection*

524

Connection kit for mixing valves with threaded connections, 524 series.
Complete with:
- 2 female unions with check valves, strainers and seals;
- 1 female union with seal.

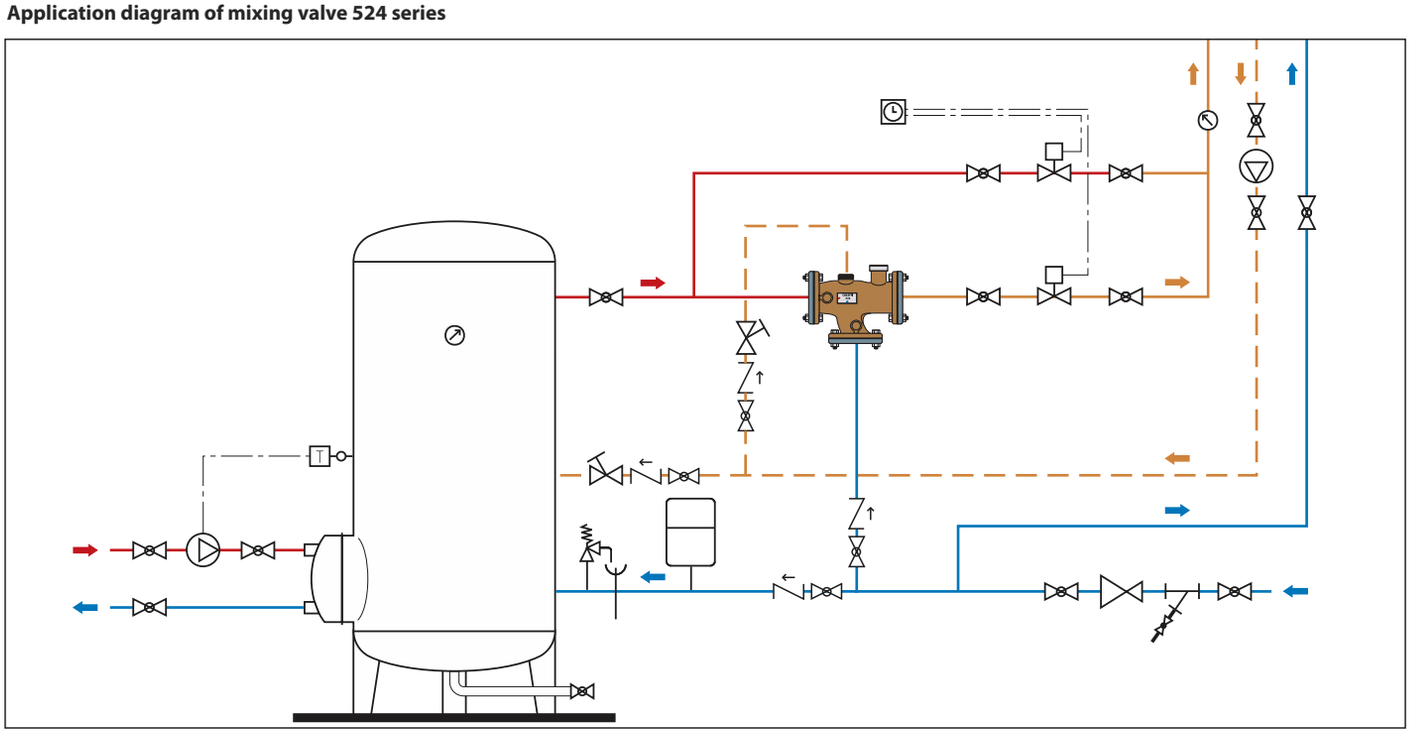
Code				
524004	1/2"	for 524400	1	–
524005	3/4"	for 524500	1	–
524006	1"	for 524600	1	–
524007	1 1/4"	for 524700	1	–
524008	1 1/2"	for 524800	1	–
524009	2"	for 524900	1	–

524

Adjustable thermostatic mixing valve.
Bronze body, PN 10.
Flanged connections.
Equipped with flat counterflanges EN 1092-1, PN 10.
Recirculation pipe connections.
Factory setting: 48°C.
Max. working pressure: 10 bar.
Max. inlet temperature: 90°C.

Code		Temperature adjustment	Kv (m³/h)		
524060	DN 65	36–53°C (±2°C)	32,0	1	–
524080	DN 80	36–53°C (±2°C)	43,0	1	–

Application diagram of mixing valve 524 series



ELECTRONIC MIXING VALVE WITH PROGRAMMABLE THERMAL DISINFECTION

6000 LEGIOMIX®

tech. broch. 01086

Electronic mixing valve with programmable thermal disinfection and check on disinfection. Male threaded connections with union.
Consisting of:
- **three-way ball valve**,
- **actuator**,
- **regulator**,
- **flow temperature probe**,
- **return temperature probe**.

With auxiliary microswitches for disinfection management and other devices.
Fitted for a monitoring and remote control connection.
Supply: 230 V - 50/60 Hz - (6,5+6) VA.
Adjustment temperature range: 20–85°C.
Disinfection temperature range: 40–85°C.
Max. working pressure: 10 bar.
Max. inlet temperature: 100°C.
Protection class: IP 65 (actuator).

Code		Kv (m³/h)		
600051	3/4″	8,4	1	–
600061	1″	10,6	1	–
600071	1 1/4″	21,2	1	–
600081	1 1/2″	32,5	1	–
600091	2″	41,0	1	–

Function

This particular series of electronic mixing valves is equipped with a special regulator **that controls a set of programs for circuit thermal disinfection**. In addition it enables checking the temperature and time for thermal disinfection are actually reached and undertaking the appropriate corrective action. All the parameters are updated every day and logged, recording the temperatures by time.

Spare parts for mixing valve.
Consisting of:
- **three-way ball valve**,
- **actuator**,
- **flow temperature probe**.

Code	
600251	for code 600051
600261	for code 600061
600271	for code 600071
600281	for code 600081
600291	for code 600091

Spare parts for electronic mixing valve with programmable thermal disinfection 6000 series with threaded connections.

Code	
645112	actuator 230 V (ac) for 600051–600091
F69798	body valve without unions and probe holder for code 600051
F69799	body valve without unions and probe holder for code 600061
F69801	body valve without unions and probe holder for code 600071
F69803	body valve without unions and probe holder for code 600081/91
F69807	flow probe for 3/4″-1″-1 1/4″
F69804	flow probe for 1 1/2″-2″
F69591	recirculation probe for check on disinfection
F69531	contact probe holder for recirculation loop
F69433	regulator with check on disinfection
R19101	temperature gauge

ANTI-SCALD DEVICE

6001

tech. broch. 01086

Anti-scald device
for domestic hot water use.
Brass body. Chrome plated.
Setting temperature: 48°C (±1°C).

Code			
600140	1/2″	1	10

Function

The purpose of the anti-scald device is to cut off the flow of water if its temperature reaches the setting value.
Designed to be used in domestic hot water systems with electronic mixing valves with programmable thermal disinfection.
Installed directly at the point of use, it prevents the hot water from scalding the user during the thermal disinfection period (T>50°C).

ELECTRONIC MIXING VALVE WITH PROGRAMMABLE THERMAL DISINFECTION

6000 LEGIOMIX®

tech. broch. 01086

Electronic mixing valve with programmable thermal disinfection and check on disinfection. Flanged connections. Consisting of:
- **three-way ball valve**,
- **actuator**,
- **regulator**,
- **flow temperature probe**,
- **return temperature probe**.

With auxiliary microswitches for disinfection management and other devices.
Fitted for a monitoring and remote control connection.
Supply: 230 V - 50/60 Hz - (6,5+10,5) VA.
Adjustment temperature range: 20–85°C.
Disinfection temperature range: 40–85°C.
To be coupled with flat counterflanges EN 1092-1, PN 16.
Max. working pressure: 10 bar.
Max. inlet temperature: 100°C.
Protection class: IP 65 (actuator).

Code		Kv (m³/h)		
600006	DN 65	90,0	1	–
600008	DN 80	120,0	1	–

Spare parts for electronic mixing valve with programmable thermal disinfection 6000 series with flanged connections.

Code	
F69381	flow or return temperature probe
F69393	three-way valve with flanged connections for 600006
F69394	three-way valve with flanged connections for 600008
F69395	actuator 230 V (ac) for 600006 and 600008
F69433	regulator with check on disinfection
F69591	recirculation probe for check on disinfection
F69531	contact probe holder for recirculation loop

6001 LEGIOMIX® interface

tech. broch. 01086

LEGIOMIX® interface for local or remote transmission and management of the electronic mixing valve 6000 series. Complete with:
- RS232 interface-computer connection cable,
- LEGIOMIX® interface connection cable with telephone connector,
- USB/serial adaptor,
- transmission and management software.

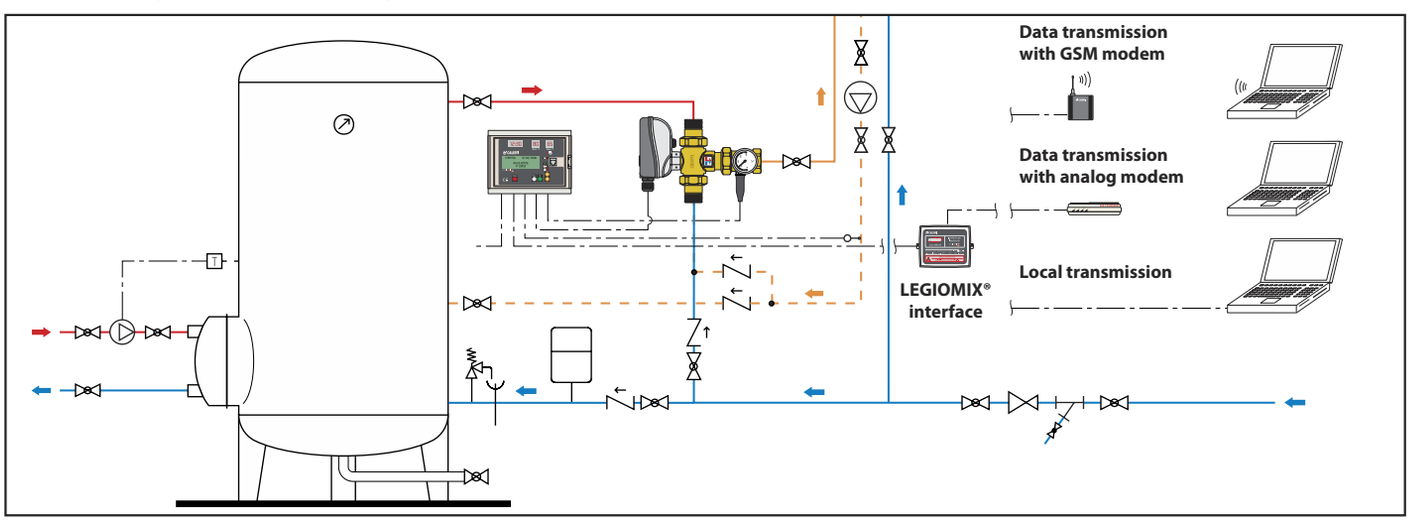
Supply: 230 V - 50 Hz - 5 VA.
Dimensions: 165 x 120 x 40 mm.

Code		
600100	1	–

7558 Accessories

Code	
755845	analog modem
755846	GSM digital modem
755855/N	bus cable (FROR 450/750 - 2x1 mm²) - reel 100 m

Application diagram of electronic mixing valve 6000 series



UNIT FOR TEMPERATURE CONTROL AND THERMAL DISINFECTION

6005 LEGIOFLOW®

tech. broch. 01160

Multi-function compact unit for temperature control, thermal disinfection and distribution for domestic water system. Consisting of:
- anti-scald thermostatic mixing valve,
- automatic flushing valve for thermal disinfection with thermo-electric actuator,
- shut-off ball valve with built-in strainers and check valves,
- cold water circuit outlet kit.

Inlet connections: 3/4" M.
Outlet connections: 3/4" M with union.

Mixing valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Adjustment temperature range: 30–50°C.
Factory setting: 43°C.
Max. inlet temperature at primary circuit: 85°C.
Performance to standards NF 079 doc. 8, EN 1111 and EN 1287.

Thermo-electric actuator
Normally closed.
Supply: 230 V (ac).
Power consumption: 3 W.
Protection class: IP 44.
Cable length: 80 cm.

With thermo-electric actuator

Code	Connections	Kv (m³/h) mixing valve	Kv (m³/h) flushing valve		
600500	3/4"	1,75	1,80	1	6

Without thermo-electric actuator

Code	Connections	Kv (m³/h) mixing valve	Kv (m³/h) flushing valve		
600501	3/4"	1,75	1,80	1	6

Version without cold water circuit outlet kit.
For applications with push button or photo-cell activated user taps.

With thermo-electric actuator

Code	Connections	Kv (m³/h) mixing valve	Kv (m³/h) flushing valve		
600502	3/4"	1,75	1,80	1	6

Without thermo-electric actuator

Code	Connections	Kv (m³/h) mixing valve	Kv (m³/h) flushing valve		
600503	3/4"	1,75	1,80	1	6

6005 LEGIOFLOW®

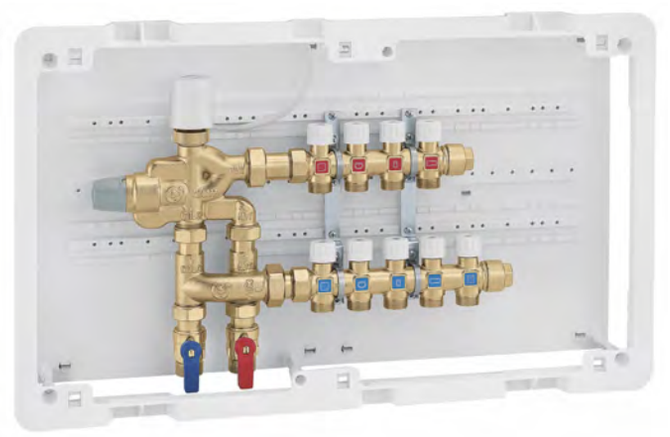
tech. broch. 01160

Multi-function compact unit for temperature control, thermal disinfection and distribution for domestic water system. Consisting of:
- anti-scald thermostatic mixing valve,
- automatic flushing valve for thermal disinfection with thermo-electric actuator,
- shut-off ball valve with built-in strainers and check valves,
- cold water circuit outlet kit,
- distribution manifolds with built-in shut-off valves,
- box code 362056 (560x330x80 mm).

Mixing valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Adjustment temperature range: 30–50°C.
Factory set: 43°C.
Max. inlet temperature at primary circuit: 85°C.
Performance to standards NF 079 doc. 8, EN 1111 and EN 1287.

Thermo-electric actuator
Normally closed.
Supply: 230 V (ac).
Power consumption: 3 W.
Protection class: IP 44.
Cable length: 80 cm.

Distribution manifolds
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Working temperature range: 5–100°C.
Outlet centre distance: 35 mm.



With thermo-electric actuator

Code	Connections	Outlets No. cold	Outlets No. hot	Outlets		
600530	3/4"	3	2	23 p.1,5 M	1	–
600540	3/4"	4	3	23 p.1,5 M	1	–
600550	3/4"	5	4	23 p.1,5 M	1	–

Without thermo-electric actuator

Code	Connections	Outlets No. cold	Outlets No. hot	Outlets		
600531	3/4"	3	2	23 p.1,5 M	1	–
600541	3/4"	4	3	23 p.1,5 M	1	–
600551	3/4"	5	4	23 p.1,5 M	1	–

UNIT FOR TEMPERATURE CONTROL AND THERMAL DISINFECTION

Thermal disinfection

To be more certain that there is no growth of Legionella, all sections of the network must be subjected to thermal disinfection. Even in the section downstream of the mixing valve, as far as the user tap, it must be possible to flush the system at temperatures exceeding 60°C. This means by-passing the thermostatic mixing valve, which is set at lower values, and activating another valve that allows the taps to be feddirectly with the hot water arriving from the distribution network.

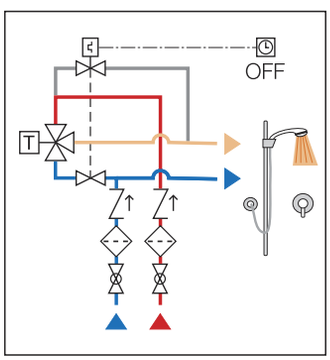
Function

The multi-function unit is used in domestic water systems to control the hot and cold water delivered to user taps, serving a bathroom or a dwelling. A high-performance adjustable thermostatic mixing valve keeps the hot water temperature at the desired level and protects the user from the danger of scalding.
A flushing valve is used for the circuit thermal disinfection all the way to the tap, in compliance with anti-Legionella regulations.

Hydraulic diagram

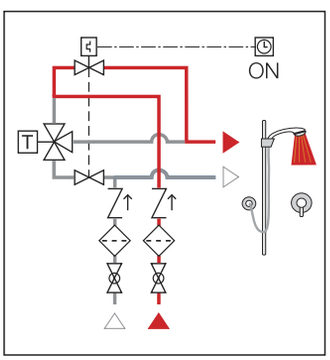
With mixing

- Flushing valve closed
- Cold water valve open



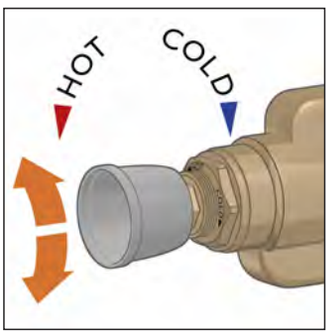
With thermal disinfection

- Flushing valve open
- Cold water valve closed

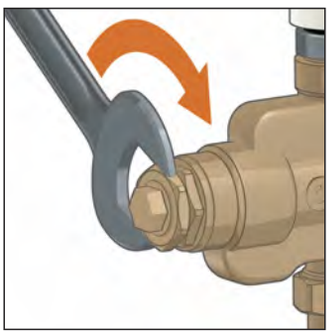


Temperature adjustment

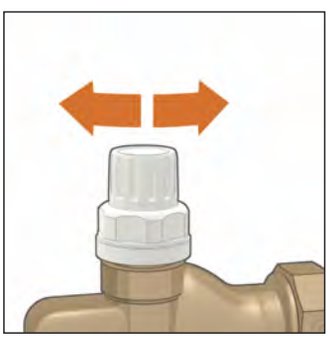
Temperature adjustment



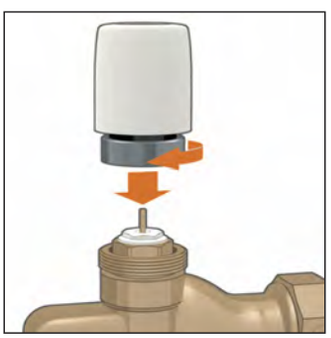
Adjustment locking using the locking nut



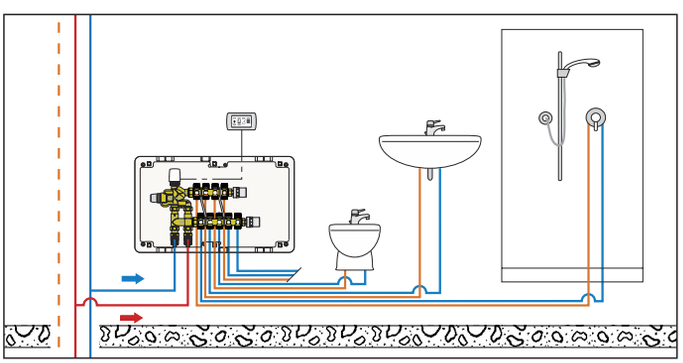
Manual opening



Thermo-electric actuator



Application diagram multi-function unit code 600550



TIMER FOR VALVE OPERATION

6002

Timer with programmable key, settings from 0,25 to 15 minutes.
To operate the valves used to carry out thermal disinfection of circuit sections, up to the taps.
Supply: 230 V (ac).

Code		
600200	1	–

MULTI-FUNCTION THERMOSTATIC REGULATOR

NEW

116

tech. broch. 01325

Thermostatic regulator for domestic hot water recirculation circuits.
Complete with automatic thermostatic thermal disinfection function.
With temperature gauge for circuit temperature check.
CR "low lead" dezincification resistant alloy body.
Female connections.
Max. working pressure: 10 bar.
Adjustment temperature range: 35–60°C.
Disinfection temperature: 70°C.

Code	DN	Conn.		
116240	15	1/2"	1	–
116250	20	3/4"	1	–

Function

In domestic hot water distribution circuits, to respect modern plant requirements for the prevention of Legionnaires' disease, it is essential to ensure that all sections are kept at the correct temperature. The recirculation network must be balanced, to avoid non-uniform temperature distribution, with cold sections at risk of Legionella proliferation.
The thermostatic regulator, installed on each return branch of the recirculation circuit, automatically maintains the set temperature. This device modulates the medium flow rate in accordance with the water inlet temperature by means of the action of a dedicated internal thermostatic cartridge. When the water temperature approaches the set value, the obturator progressively reduces the passage. The medium flow rate supplied by the recirculation pump is thus distributed to the other network branches, resulting in effective automatic thermal balancing.
If necessary, the regulator is already equipped with a thermal disinfection function, which is useful if the system temperature is to be increased to values over 55–60°C.
This function can be completely automatic, activated by a dedicated second thermostatic cartridge that trips at 70°C, or controlled with a thermo-electric actuator.

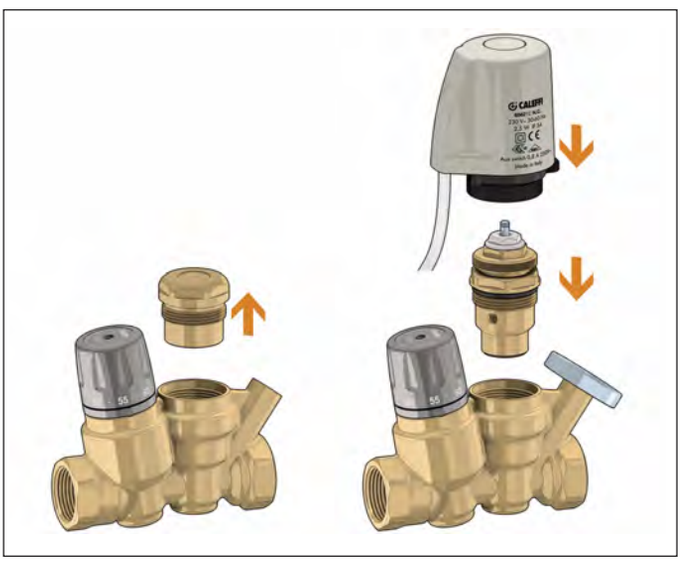
116

tech. broch. 01325

Thermostatic regulator for domestic hot water recirculation circuits.
Fitted for automatic or controlled thermal disinfection function.
With pocket for temperature gauge.
CR "low lead" dezincification resistant alloy body.
Female connections.
Max. working pressure: 10 bar.
Adjustment temperature range: 35–60°C.

Code	DN	Conn.		
116140	15	1/2"	1	–
116150	20	3/4"	1	–

Cartridge replacement for electrically controlled disinfection



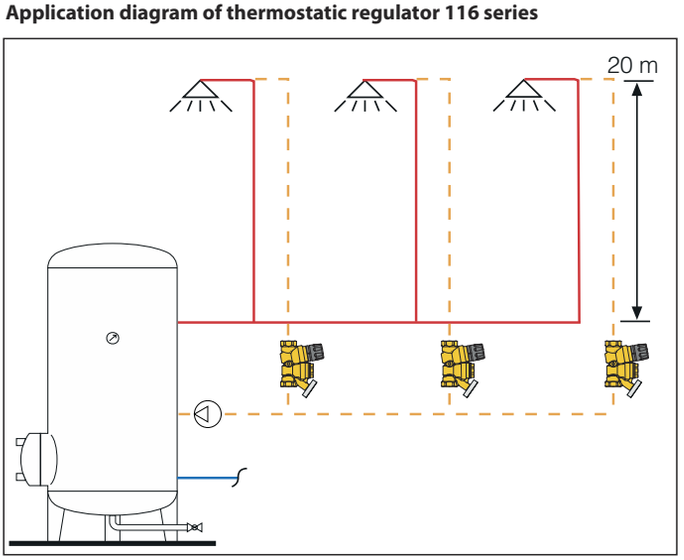
116

tech. broch. 01325

Cartridge for thermal disinfection function controlled by an actuator.
For use with 116 series combined with 656. series actuators.

Code		
116000	1	–

Application diagram of thermostatic regulator 116 series



Accessory temperature gauge
for multifunction thermostatic regulator 116 series.
Temperature gauge scale: 0–80°C.

Code		
116010	1	–

MULTI-FUNCTION THERMOSTATIC REGULATOR

Operating modes

Here following the regulator's operating modes according to the variation of the water temperature of the circuit it is installed on.

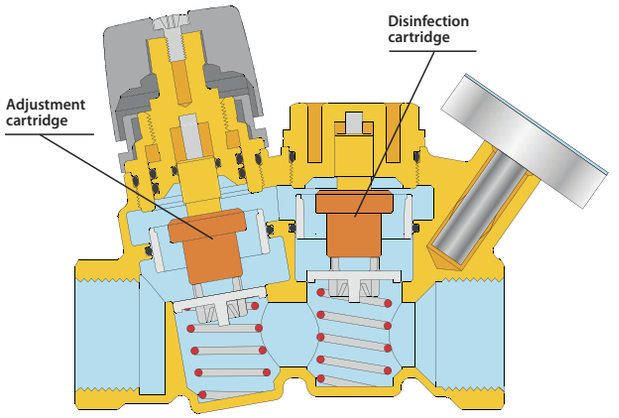
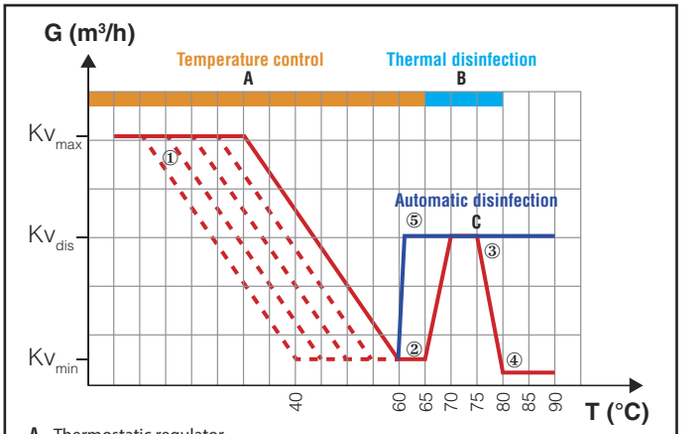


Diagram of thermostatic regulator 116 series

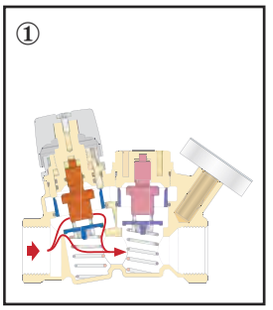


A Thermostatic regulator

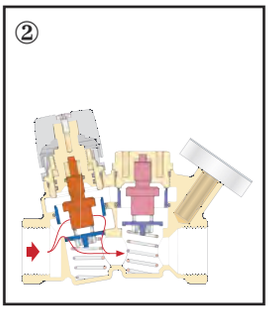
B Thermostatic regulator with automatic thermostatic disinfection function

C Thermostatic regulator with disinfection function controlled by an actuator

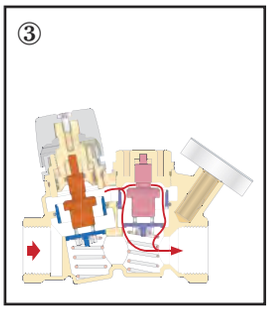
Thermostatic adjustment



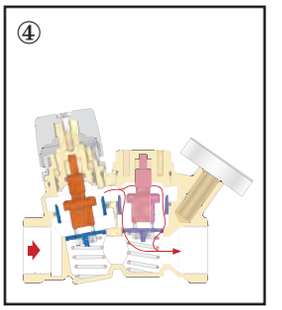
Minimum flow rate



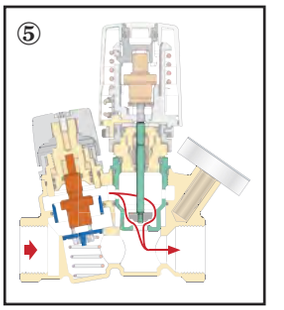
Thermostatic disinfection



Thermal closing



Electrically controlled disinfection



5370

tech. broch. 01028

Housing for strainer cartridges
of standard nominal size 10".
Brass body,
transparent plastic housing.
Max. working pressure: 16 bar.
Temperature range: 5–40°C.

Code			
537050	3/4"	1	–
537060	1"	1	–

5370

tech. broch. 01028

Strainer cartridges
for housing 5370 series.
Standard nominal size 10".
Temperature range: 5–40°C.
Max. Δp: 3 bar.
Characteristics:
537004 - nylon washable mesh - 60 μm,
537005 - stainless steel mesh - 50 μm.

Code			
537004		1	–
537005		1	–

3037 ROBOCHECK-1

15 mm single check valve
with compression ends.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
303715	Ø 15	10	100

3038 ROBOCHECK-2

15 mm controllable double check valve
with compression ends.
CR dezincification resistant alloy body.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
303815	Ø 15	10	100

WATER HAMMER ARRESTERS

525 ANTISHOCK

tech. broch. 01020

Water hammer arrester.
Brass body.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
PTFE seal on thread.

Code			
525040	1/2"	1	25
525041	1/2" yellow brass body	1	25

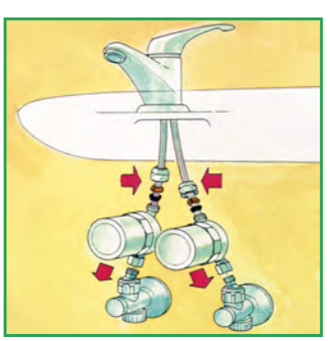
525 ANTISHOCK

tech. broch. 01020

Water hammer arrester
for fitting under sinks, wash-hand basins
and washing machine (3/4").
Brass body.
Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
525130	3/8" F nut x 3/8" M	1	50
525131	3/8" F nut x 3/8" M yellow brass body	1	50
525150	3/4" F nut x 3/4" M	1	25
525151	3/4" F nut x 3/4" M yellow brass body	1	25

Installation diagrams of water hammer arrester 525 series



309

tech. broch. 01130

Temperature and pressure relief valve.
CR dezincification resistant alloy body.
For domestic water system,
to protect the hot water storage.
Setting temperature: 90°C.
Discharge rating: 1/2" - 3/4" x Ø 15: 10 kW.
3/4" x Ø 22: 25 kW.
Settings: 3 - 4 - 6 - 7 - 10 bar.
Settings certified to EN 1490: 4 - 7 - 10 bar.

Code			Probe length (mm)		
309430	1/2" M x Ø 15	3 bar	100	1	20
309440	1/2" M x Ø 15	4 bar	100	1	20
309460	1/2" M x Ø 15	6 bar	100	1	20
309470	1/2" M x Ø 15	7 bar	100	1	20
309400	1/2" M x Ø 15	10 bar	100	1	20
309542	3/4" M x Ø 15	4 bar	100	1	20
309530	3/4" M x Ø 22	3 bar	100	1	20
309560	3/4" M x Ø 22	6 bar	100	1	20
309570	3/4" M x Ø 22	7 bar	100	1	20
309500	3/4" M x Ø 22	10 bar	100	1	20
309435	1/2" M x Ø 15	3 bar	200	1	20
309445	1/2" M x Ø 15	4 bar	200	1	20
309465	1/2" M x Ø 15	6 bar	200	1	20
309475	1/2" M x Ø 15	7 bar	200	1	20
309405	1/2" M x Ø 15	10 bar	200	1	20
309547	3/4" M x Ø 15	4 bar	200	1	20
309535	3/4" M x Ø 22	3 bar	200	1	20
309565	3/4" M x Ø 22	6 bar	200	1	20
309575	3/4" M x Ø 22	7 bar	200	1	20
309505	3/4" M x Ø 22	10 bar	200	1	20

309

Temperature and pressure relief valve.
CR dezincification resistant alloy body.
For domestic water system,
to protect the hot water storage.
Set temperature: 95°C.
Discharge rating: 25 kW.
Setting: 6 bar.
For systems with nominal pressure of 400 kPa.

SANS 198

Code		Probe length (mm)		
309563	3/4" M x Ø 22	100	1	20

5557

tech. broch. 01079

Welded expansion vessel,
for hot water systems, EC certification.
Bladder membrane.
Max. working pressure: 10 bar.
System working temperature range: -10–100°C.
Membrane working temperature range: -10–100°C.
Conformity to EN 13831 standard.

Code	Litres	Conn.	Precharge (bar)		
55502	2	1/2"	2,5	4	–
55505	5	3/4"	2,5	1	–
55508	8	3/4"	2,5	1	–

For bigger capacity see page 202

534

Flow limiter.
Brass body.
Chrome plated.
1/2" connection.
Max. working pressure: 12 bar.
Max. working temperature: 80°C.
Pressure range: 1–10 bar.

● **Key to code**
flow direction M ➜ F = **1**
flow direction F ➜ M = **2**

Code		Accuracy (%)		
534•02	2 l/min olive green	±30	1	25
534•04	4 l/min grey	±15	1	25
534•05	5 l/min yellow	±15	1	25
534•06	6 l/min black	±10	1	25
534•08	8 l/min white	±10	1	25
534•10	10 l/min light blue	±10	1	25
534•12	12 l/min red	±10	1	25
534•16	16 l/min blue	±10	1	25
534•18	18 l/min purple	±10	1	25

EXPANSION GROUPS FOR HOT WATER STORAGE HEATERS

NEW

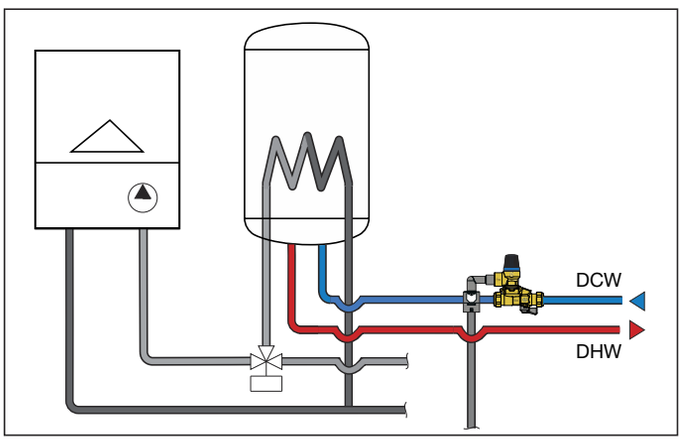
528

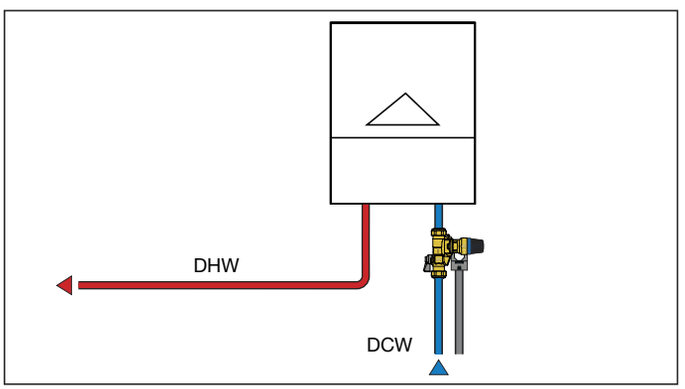
Expansion group for hot water storage heaters, for horizontal or vertical installation.
Brass body and expansion relief valve.
With shut-off valve and controllable check valve.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.
Settings: 7, 8, 10 bar.
Certified to EN 1488.

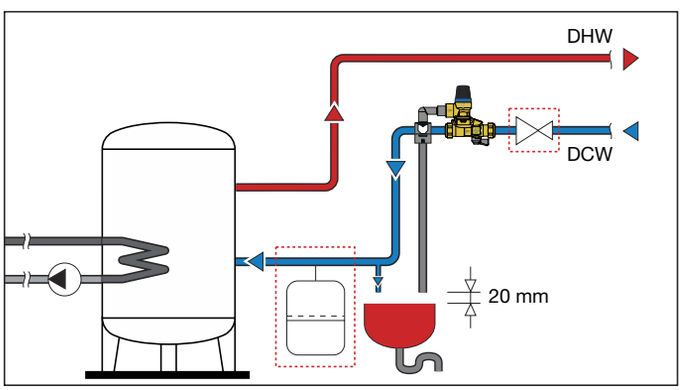
BELGAQUA VA 1.59/20511 kiwa

Code				
528518	Ø 15	8 bar	1	20
528547	1/2"	7 bar	1	20
528548	1/2"	8 bar	1	20
528540	1/2"	10 bar	1	20

Application diagram 528 series







5280 SICAL®

Expansion group for hot water storage heaters, for horizontal or vertical installation.
Brass body and expansion relief valve.
With shut-off cock and controllable check valve.
With insulation.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.
Max. volume of domestic water storage: 200 l.
Max. power of domestic water storage: 75 kW.
Settings: 6, 8, 10 bar.
Certified to EN 1488.

Code		Expansion relief valve		
528046	1/2" M	6 bar	1	5
528048	1/2" M	8 bar	1	5
528041	1/2" M	10 bar	1	5
528056	3/4" M	6 bar	1	5
528058	3/4" M	8 bar	1	5
528051	3/4" M	10 bar	1	5

5281 SICAL®

Expansion group for hot water storage heaters, for horizontal or vertical installation.
Brass body and expansion relief valve.
With shut-off cock and controllable check valve.
With insulation.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.
Max. volume of domestic water storage: 1000 l.
Max. power of domestic water storage: 150 kW.
Settings: 6, 8, 10 bar.
Certified to EN 1488.

Code		Expansion relief valve		
528156	3/4" M	6 bar	1	5
528158	3/4" M	8 bar	1	5
528151	3/4" M	10 bar	1	5
528166	1" M	6 bar	1	5
528168	1" M	8 bar	1	5
528161	1" M	10 bar	1	5

HYDRAULIC SAFETY GROUPS FOR HOT WATER STORAGE HEATERS

5261

tech. broch. 01019

Hydraulic safety group
for hot water storage heaters,
with shut-off valve and
controllable check valve.
With stainless steel seat.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 120°C.
Setting: 7 bar.
Max. power rating: 1/2" - 4 kW,
3/4" - 10 kW.
Certified to EN 1487.

Code			
526142	1/2"	1	30
526152	3/4"	1	30

5261

tech. broch. 01019

Hydraulic safety group
for hot water storage heaters,
with shut-off valve and
controllable check valve.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 120°C.
Setting: 7 bar.
Max. power rating: 1/2" - 4 kW,
3/4" - 10 kW.
Certified to EN 1487.

Code			
526140	1/2"	1	30
526150	3/4"	1	30

5261

tech. broch. 01019

Hydraulic safety group
for hot water storage heaters,
with shut-off valve and
controllable check valve.
For horizontal installation.
With stainless steel seat.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 120°C.
Setting: 7 bar.
Max. power rating: 3/4" - 10 kW,
1" - 18 kW.
Certified to EN 1487.

Code			
526153	3/4"	1	10
526163	1" yellow brass body	1	10

5261

tech. broch. 01019

Hydraulic safety group
for hot water storage heaters,
with shut-off valve and
controllable check valve.
For horizontal installation.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. working temperature: 120°C.
Setting: 7 bar.
Max. power rating: 3/4" - 10 kW.
Certified to EN 1487.

Code			
526151	3/4"	1	10

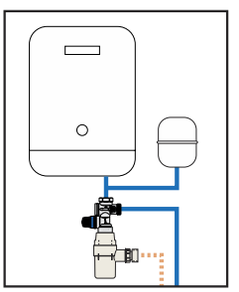
319

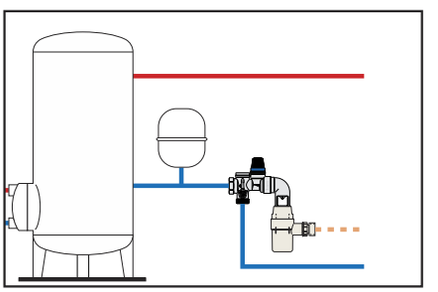
tech. broch. 01019

Plastic discharge tundish
for safety groups 5261 series.

Code			
319601	1"	1	25

Application diagram of safety group 5261 series



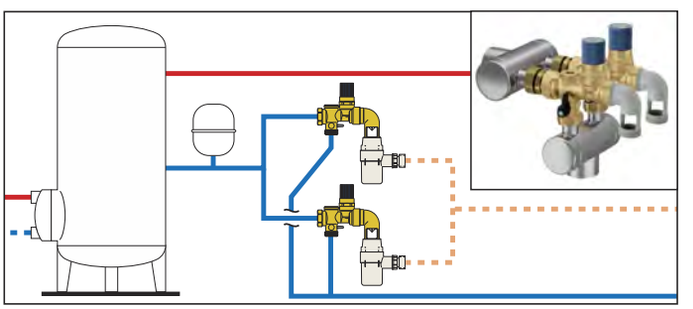


6509

Connection kit
for unit code 526163.

Code			
650972	1"	1	25

Application diagram of kit code 650972 with unit code 526163

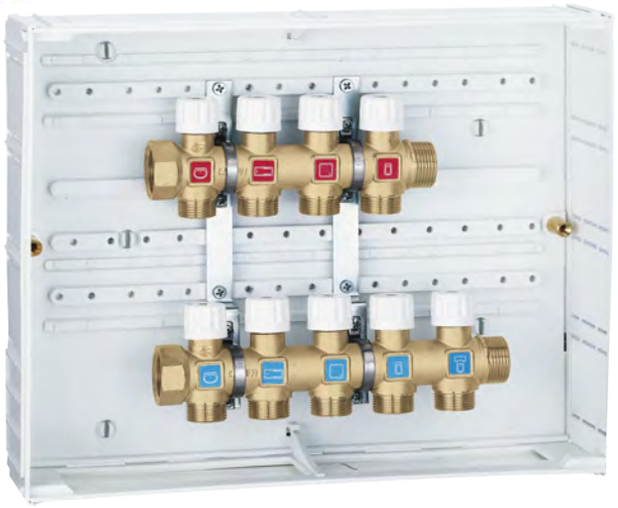


PRE-ASSEMBLED DISTRIBUTION MANIFOLDS

360

Domestic water distribution manifolds pre-assembled in inspection wall box.
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 35 mm.

Consisting of:
- pair of manifolds 354 series;
- pair of stainless steel mounting brackets, code 360210;
- inspection wall box code 360032 (320 x 250 x 90), with cover.



Code	Connections	Outlets No. cold	hot	Outlets		
360043	3/4"	4	3	23 p.1,5 M	1	–
360054	3/4"	5	4	23 p.1,5 M	1	–

354

Modular single distribution manifold with shut-off valve.
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Outlet centre distance: 35 mm.

Code	Connections	Outlets No.	Outlets		
354052	3/4"	x 2	23 p.1,5 M	5	20
354053	3/4"	x 3	23 p.1,5 M	5	20
354054	3/4"	x 4	23 p.1,5 M	5	20
354055	3/4"	x 5	23 p.1,5 M	5	20

360

Pair of stainless steel mounting brackets for modular single distribution manifolds 354 series.
For inspection box 360 and 362 series.

Code		
360210	1	10

3642

End fitting.
For distribution manifolds 360 series.

Code			
364254	3/4" M x 1/2" F	2	–

3641

Plug.
For distribution manifolds 360 series.

Code			
364150	3/4" M	2	–

5991

End fitting.
For distribution manifolds 360 series.

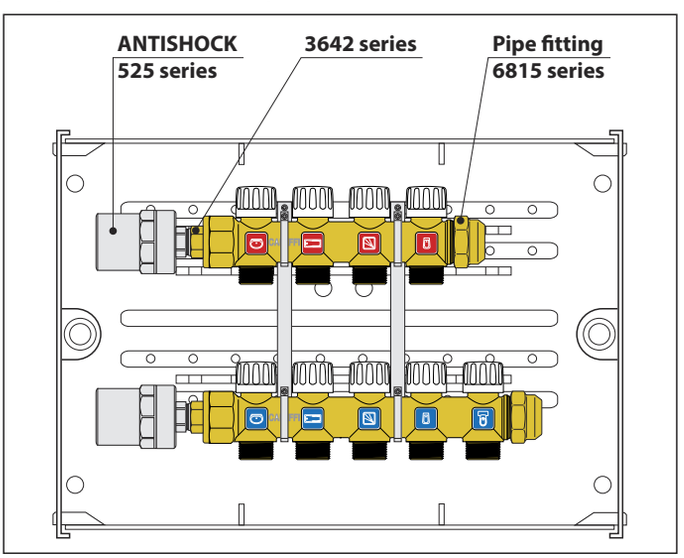
Code			
599154	3/4" F x 1/2" F	2	–

5993

Plug.
For distribution manifolds 360 series.

Code			
599350	3/4" F	2	10

Example of distribution composition



ANTI-FREEZE SAFETY DEVICE

603 ICECAL®

tech. broch. 01181

Garden tap, ball type,
with anti-freeze safety device.
Brass body. Chrome plated.
Stainless steel lever and fixing nut.
Hose connection for Ø 15 mm pipe.
Max. working pressure: 10 bar.
Ambient temperature range: -30–90°C.
Opening temperature: 3°C.
Closing temperature: 4°C.

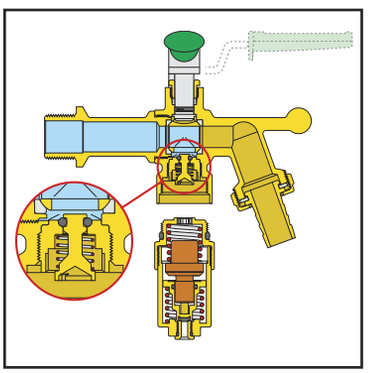
Code			
603450	1/2" M x 3/4" M with hose connection	1	10

Anti-freeze group spare part, chrome plated for code 603450.

Code		
F89046/C	1	–

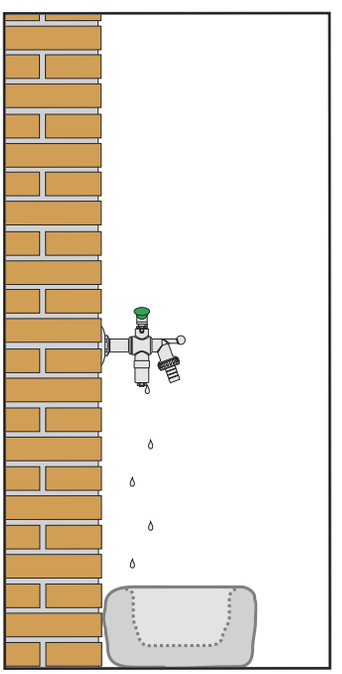
Anti-freee safety device replacement

The anti-freeze safety device is preassembled and can be replaced in case of necessity.
A specific internal valve automatically shuts the water off during the replacement operation.

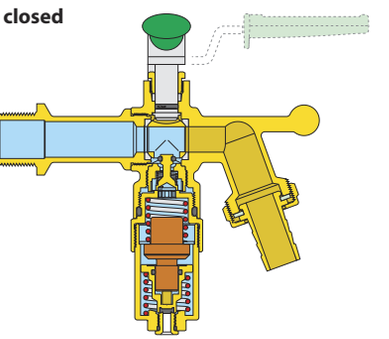


Function

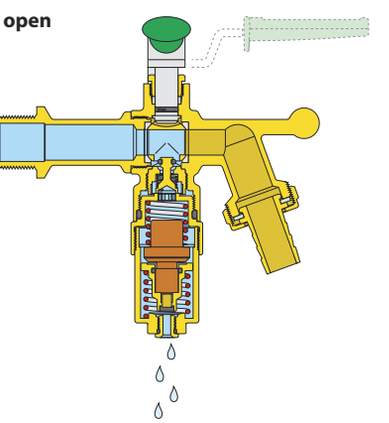
The anti-freeze safety device prevents ice build-up in domestic water circuits, avoiding possible damage to pipes in hydraulic and irrigation systems.
When the minimum intervention temperature is reached, it automatically opens so that a minimum quantity of water may flow toward the drain, enabling a small continuous inflow of water; this prevents the circuit from freezing.
A particular product has been developed by combining the anti-freeze safety device with a garden tap ball type, specifically constructed for these installations.
The valve is fitted with ball with blow-out proof design, O-ring seal and packing gland; the control lever and fixing nut are made of stainless steel, for total resistance against corrosion in different climatic conditions.



Anti-freeze safety device closed

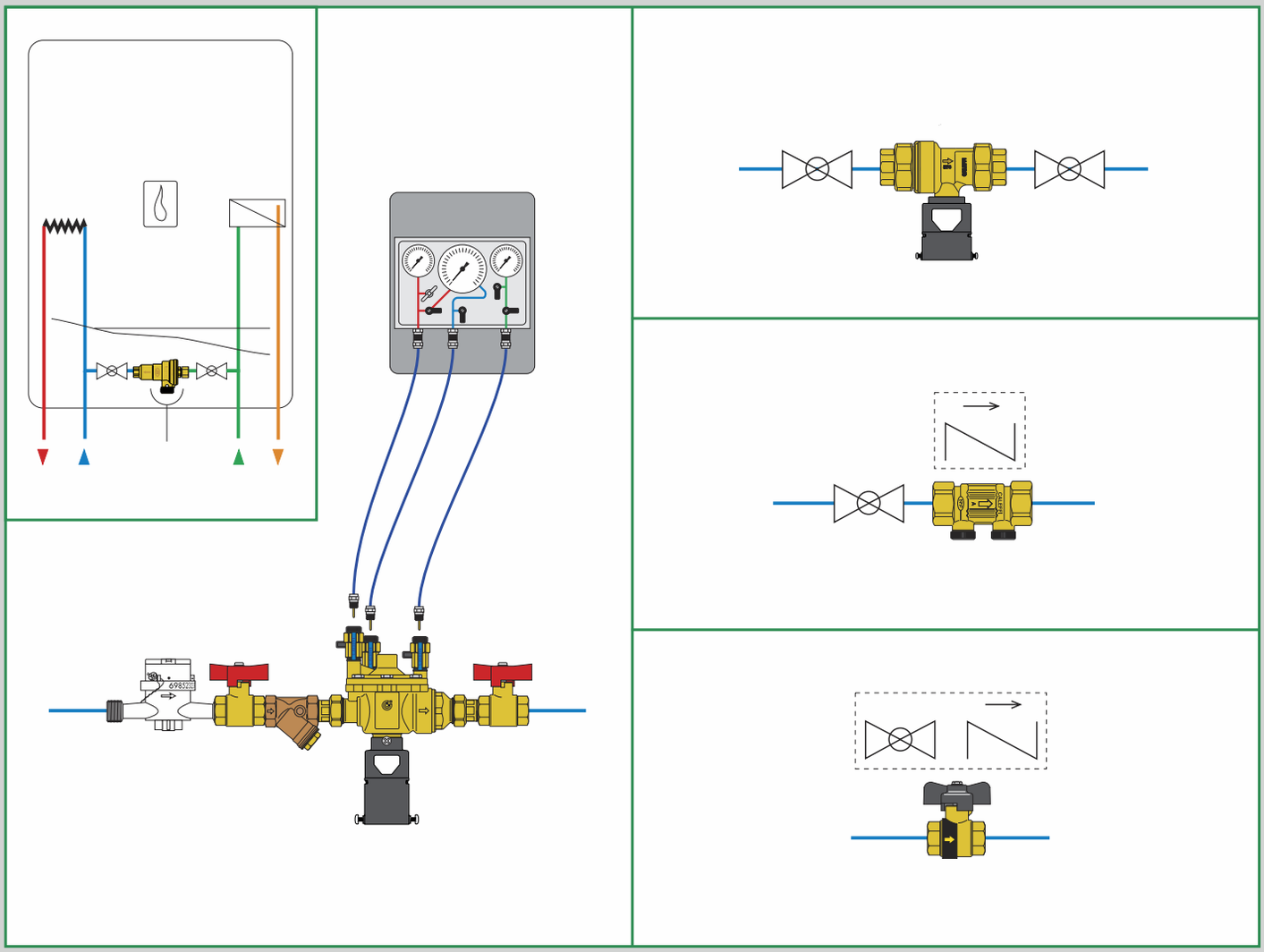


Anti-freeze safety device open



BACKFLOW PREVENTION DEVICES

This diagram is just an indication



Backflow preventer
Pre-assembled group with backflow preventer, Y-strainers and shut-off valves
Y-strainers and test kit for backflow preventers
Spare parts for backflow preventers
Ball valves with built-in check valves, BALLSTOP
Anti-pollution check valves

BACKFLOW PREVENTERS

572

Non controllable backflow preventer with different pressure zones for wall mounted boilers.
CAb type. Brass body. PN 10.
Ø 6 copper pipe connections.
Max. working temperature: 40°C.
To standard EN 14367.

Code			
572106		1	50

573

tech. broch. 01008

Non controllable backflow preventer with different pressure zones. **CAa type**.
CR dezincification resistant alloy body.
PN 10.
Female union connections.
Max. working temperature: 65°C.
To standard EN 14367.

Code			
573400	1/2″	1	10
573500	3/4″	1	10

573

Non controllable backflow preventer with different pressure zones.
Normally closed.
Brass body. PN 10.
Female union connections.
Max. working temperature: 65°C.

Code			
573404	1/2″	1	20
573504	3/4″	1	20

573

Non controllable backflow preventer with different pressure zones.
Normally closed.
Brass body. PN 10.
Female union connections.
With threaded outlet.
Max. working temperature: 65°C.

Code			
573405	1/2″	1	20
573505	3/4″	1	20

573

tech. broch. 01328

Non controllable backflow preventer with different pressure zones. **CAa type**.
Brass body. PN 10.
Female union connections.
Max. working temperature: 65°C.
To standard EN 14367.

Code			
573415	1/2″	1	10
573515	3/4″	1	10

574

tech. broch. 01022

Controllable, reduced pressure zone backflow preventer.
BA type. CR dezincification resistant alloy body. PN 10.
Male union connections.
Max. working temperature: 65°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 577 series.

Code			
574004	1/2″	1	10

574

tech. broch. 01022

Controllable, reduced pressure zone backflow preventer.
BA type. CR dezincification resistant alloy body. PN 10.
Male union connections.
Max. working temperature: 65°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 577 series.

Code			
574040	1/2″	1	–
574050	3/4″	1	–
574006	1″	1	–

BACKFLOW PREVENTERS

574

tech. broch. 01022

Controllable, reduced pressure zone backflow preventer.
BA type. CR dezincification resistant alloy body. PN 10.
Male union connections.
Max. working temperature: 65°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 577 series.

Code			
574600	1″	1	–
574700	1 1/4″	1	–

575

tech. broch. 01022

Controllable, reduced pressure zone backflow preventer.
BA type. Bronze body. PN 10. Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working temperature: 65°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 579 series.

Code			
575005	DN 50	1	–
575006	DN 65	1	–
575008	DN 80	1	–
575010	DN 100	1	–

574

tech. broch. 01022

Controllable, reduced pressure zone backflow preventer.
BA type. Bronze body. PN 10. Male union connections.
Max. working temperature: 65°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 577 series.

Code			
574800	1 1/2″	1	–
574900	2″	1	–

570

tech. broch. 01022

Pre-assembled group consisting of:
backflow preventer 574 series;
Y-strainer 577 series for backflow preventers;
manual shut-off valves.
PN 10. Female connections.
Max. working temperature: 65°C.

Code			
570004	1/2″	1	–
570005	3/4″	1	–
570006	1″	1	–
570007	1 1/4″	1	–
570008	1 1/2″	1	–
570009	2″	1	–

BACKFLOW PREVENTERS WITH MULTIFUNCTION GEOMETRY

NEW

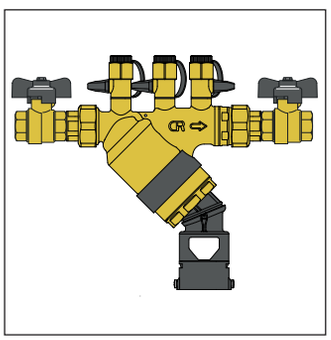
580

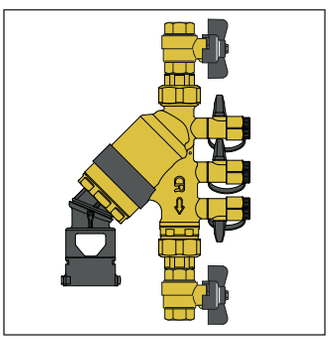
tech. broch. 01322

Backflow preventer
with multifunction geometry. **BA type**.
CR dezincification resistant alloy body.
Threaded union connections.
For linear installation on horizontal or vertical pipes.
Complete with strainer at the inlet.
Max. working pressure: 10 bar.
Max. working temperature: 65°C.
Certified to EN 12729 standard.

Code				
580040	DN 15	1/2" M	1	–
580050	DN 20	3/4" M	1	–

Discharge tundish
Thanks to the possibily of orienting the tundish, the same body can be used in three different configurations: installation on horizontal or vertical pipes or for special applications.





580

tech. broch. 01322

Backflow preventer
with multifunction geometry. **BA type**.
CR dezincification resistant alloy body.
Complete with connection fitting
to the tap at the inlet
and hose connection at the outlet.
For vertical installation.
Complete with strainer at the inlet.
Max. working pressure: 10 bar.
Max. working temperature: 65°C.
Certified to EN 12729 and Beschluss 4/2007 standard.

Code				
580150	DN 20	3/4" nut x 3/4" M	1	–

Self-contained cartridge
The self-contained cartridge comprises, all in one piece, the membrane, the upstream check valve, the discharge valve and the whole activation system.
In case of maintenance, it can be easily extracted from the body without the aid of further sealing elements.

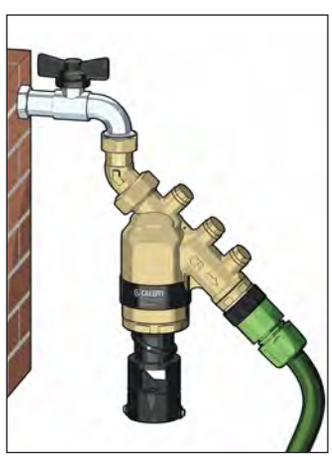
580

tech. broch. 01322

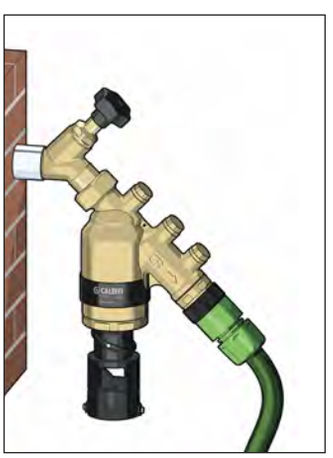
Backflow preventer
with multifunction geometry. **BA type**.
CR dezincification resistant alloy body.
Complete with isolating valve at the inlet
and hose connection at the outlet.
For vertical installation.
Complete with strainer at the inlet.
Max. working pressure: 10 bar.
Max. working temperature: 65°C.
Certified to EN 12729 and W570-3 standard.

Code				
580240	DN 15	1/2" M x 3/4" M	1	–
580250	DN 20	3/4" M x 3/4" M	1	–

Application diagram code 580150



Application diagram code 580240/580250



BACKFLOW PREVENTERS

570

tech. broch. 01022

Pre-assembled group consisting of:
backflow preventer 575 series;
Y-strainer 579 series for backflow preventers;
manual shut-off valves.
PN 10. Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working temperature: 65°C.

Code			
570050	DN 50	1	–
570060	DN 65	1	–
570080	DN 80	1	–
570100	DN 100	1	–

575

Controllable, reduced pressure zone backflow preventer.
BA type. Cast iron body, with epoxy coating.
PN 10. Flanged connections.
To be coupled with flat counterflanges EN 1092-1.
Max. working temperature: 60°C.
Discharge opening differential pressure to: 14 kPa.
To standard EN 12729.
Upstream of the backflow preventer is mandatory to install a strainer 579 series.

Code			
575150	DN 150	1	–
575200	DN 200	1	–
575250	DN 250	1	–

570

tech. broch. 01022

Pre-assembled group consisting of:
backflow preventer 575 series;
Y-strainer 579 series for backflow preventers;
manual shut-off valves.
PN 10. Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working temperature: 60°C.

Code			
570150	DN 150	1	–
570200	DN 200	1	–
570250	DN 250	1	–

Y-STRAINERS AND TEST KIT FOR BACKFLOW PREVENTERS

577

Y-strainer,
for backflow preventers 573 and 574 series.
Bronze body,
1/2"–2": PN 16,
2 1/2" - 3": PN 10.
Female connections.
Temperature range: -20–110°C.
Max. percentage of glycol: 30%.
Strainer in stainless steel stretched plate.

Code		Mesh size Ø (mm)		
577004	1/2"	0,40	1	–
577005	3/4"	0,40	1	–
577006	1"	0,40	1	–
577007	1 1/4"	0,47	1	–
577008	1 1/2"	0,47	1	–
577009	2"	0,53	1	–
577020	2 1/2"	0,53	1	–
577030	3"	0,53	1	–

579

Y-strainer, for backflow preventer 575 series
and for pressure reducing valve 576 series.
Cast iron body, with epoxy coating.
Flanged connections PN 16.
To be coupled with flat counterflanges EN 1092-1.
Max. working pressure: 16 bar.
Max. working temperature: 65°C.
Stainless steel mesh.
With drain cock.

Code		Mesh size Ø (mm)		
579050	DN 50	0,87	1	–
579060	DN 65	0,87	1	–
579080	DN 80	1,55	1	–
579100	DN 100	1,55	1	–
579120	DN 125	1,55	1	–
579150	DN 150	1,55 *	1	–
579200	DN 200	1,55 *	1	–
579250	DN 250	1,55 *	1	–

** Rhomboidal reinforcing mesh*

5750

tech. broch. 01022

Backflow preventer test kit
consisting of:
- upstream pressure gauge
- downstream pressure gauge
- differential pressure gauge
- flexible hoses and connectors.

Code			
575000		1	–

SPARE PARTS FOR BACKFLOW PREVENTERS

Discharge device
for backflow preventers
574 and 575 series.

Code			
59978	1/2″ (574004)	1	–
59471	1/2″ (574040) - 3/4″ - 1″ (574006)	1	–
59457	1″ (574600) - 1 1/4″	1	–
59461	1 1/2″ - 2″ - DN 50	1	–

Discharge device
for backflow preventer 575 series.

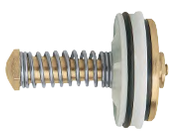
Code			
59625	DN 65 (575006)	1	–
59629	DN 80 (575008) - DN 100 (575010)	1	–

Discharge valve seat
for backflow preventers
574 and 575 series.

Code			
59472	1/2″ (574040) - 3/4″ - 1″ (574006)	1	–
59458	1″ (574600) - 1 1/4″	1	–
59462	1 1/2″ - 2″ - DN 50 - DN 65	1	–

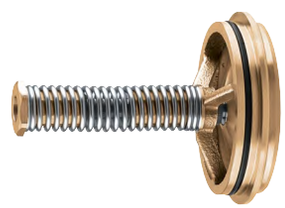
Discharge valve seat
for backflow preventer 575 series.

Code			
59630	DN 80 (575008) - DN 100 (575010)	1	–



Upstream check valve
for backflow preventers
574 and 575 series.

Code			
59977	1/2″ (574004)	1	–
59973	1/2″ (574040) - 3/4″ (574050)	1	–
59469	3/4″ (574005) - 1″ (574006)	1	–
59455	1″ (574600) - 1 1/4″	1	–
59459	1 1/2″ - 2″ - DN 50	1	–



Upstream check valve
for backflow preventer 575 series.

Code			
59627	DN 65 (575006)	1	–
59631	DN 80 (575008) - DN 100 (575010)	1	–

Downstream check valve
for backflow preventers
574 and 575 series.

Code			
59979	1/2″ (574004)	1	–
59470	1/2″ (574040) - 3/4″ - 1″ (574006)	1	–
59456	1″ (574600) - 1 1/4″	1	–
59460	1 1/2″ - 2″ - DN 50	1	–

Downstream check valve
for backflow preventer 575 series.

Code			
59628	DN 65 (575006)	1	–
59632	DN 80 (575008) - DN 100 (575010)	1	–

BALL VALVE WITH BUILT-IN CHECK VALVE

3230 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female connections.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
323040	1/2″	10	–
323050	3/4″	10	–
323060	1″	4	–

3230 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female connections.
Lever handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
323070	1 1/4″	4	–
323080	1 1/2″	2	–
323090	2″	1	–

332 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Male - female connections.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

Code			
332400	1/2″ M x 1/2″ F	10	–

333 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Female - nut connection.
Drilled tamper-proof safety nut.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

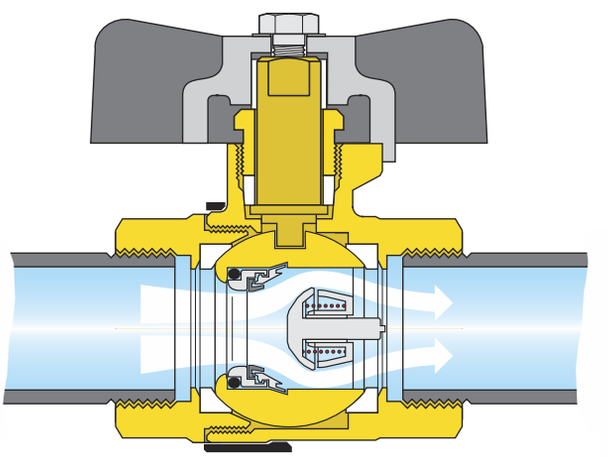
Code			
333400	1/2″ F x nut 3/4″ F	10	–
333500	3/4″ F x nut 3/4″ F	10	–

334 BALLSTOP

tech. broch. 01021

Ball valve with built-in check valve.
Brass body.
Male - nut connection.
Drilled tamper-proof safety nut.
Butterfly handle.
Max. working pressure: 16 bar.
Temperature range: 5–90°C.

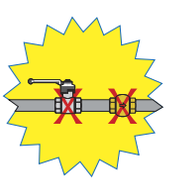
Code			
334400	1/2″ M x nut 3/4″ F	10	–
334500	3/4″ M x nut 3/4″ F	10	–



BALLSTOP

TWO VALVES

IN ONE



ANTI-POLLUTION CHECK VALVES

3045

tech. broch. 01005

Check valve. **EA type**.
Controllable. Brass body.
Female connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
To standard EN 13959.

Code			
304540	1/2"	10	100
304550	3/4"	10	50
304560	1"	5	25
304570	1 1/4"	5	25
304580	1 1/2"	2	20
304590	2"	1	10

3046

Compact check valve. **EA type**.
Controllable. Brass body.
Nut - male connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
To standard EN 13959.

Code	Inside check device DN	Connections		
304601	15	3/4" F x 3/4" M	10	100

3046

tech. broch. 01005

Check valve. **EA type**.
Controllable. Brass body.
Nut - male connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
To standard EN 13959.

Code	Inside check device DN	Connections		
304640	15	3/4" F x 3/4" M	10	100
304650	20	1" F x 1" M	10	50
304660*	25	1 1/4" F x 1 1/4" M	5	25
304670*	32	1 1/2" F x 1 1/2" M	4	20
304680*	40	2" F x 2" M	2	10

** Without NF certification*

3046

Check valve. **EA type**.
Controllable. Brass body.
Nut - male connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
To standard EN 13959.

Code	Inside check device DN	Connections		
304644	15	3/4" F x 3/4" M	1	50
304654	20	1" F x 1" M	1	50

3046

Compact check valve. **EA type**.
Controllable. Brass body.
Nut - male connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.
To standard EN 13959.

Code	Inside check device DN	Connections		
304645	15	3/4" F x 3/4" M	10	100

3047

tech. broch. 01005

Check valve. **EB type**.
Non controllable. Brass body.
Female connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
304740	1/2"	10	100
304750	3/4"	10	50
304760	1"	5	25

3048

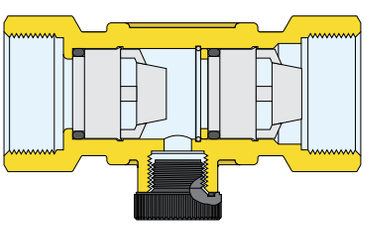
tech. broch. 01005

Double check valve.
Controllable. Brass body.
Female connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code			
304840	1/2"	1	50
304850	3/4"	1	50

Double check valve
3048 series

This double check valve can be used according to local regulations, instead of the backflow preventer when a low pressure valve, at the inlet from the public network, is present.



The watertightness of the chek valve, furthermore, can be verified by using the pressure test port on the valve body.

3041

tech. broch. 01005

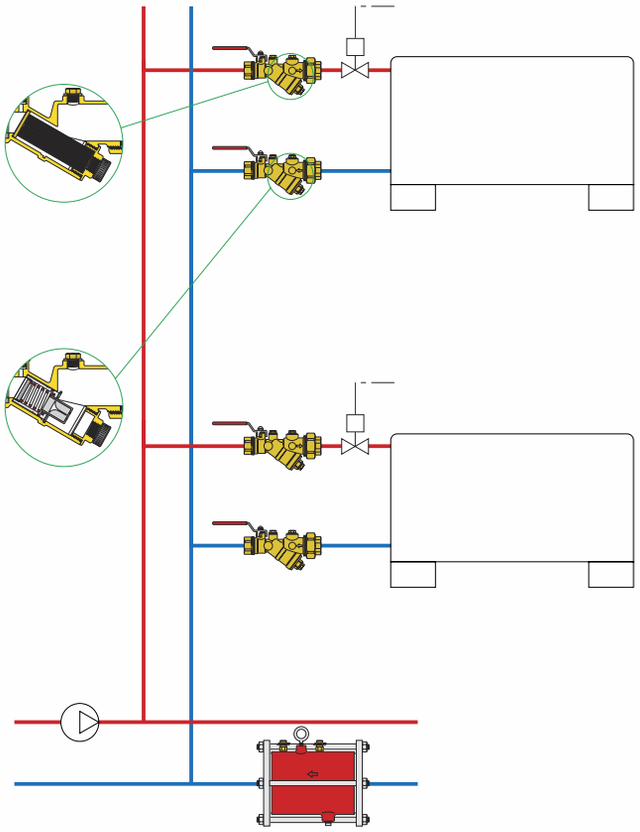
Ball valve with built-in certified check valve.
Controllable. Brass body.
Nut - male connections.
Max. working pressure: 10 bar.
Max. working temperature: 90°C.

Code	Inside check device DN	Connections		
304140	15	3/4" F x 3/4" M	5	25

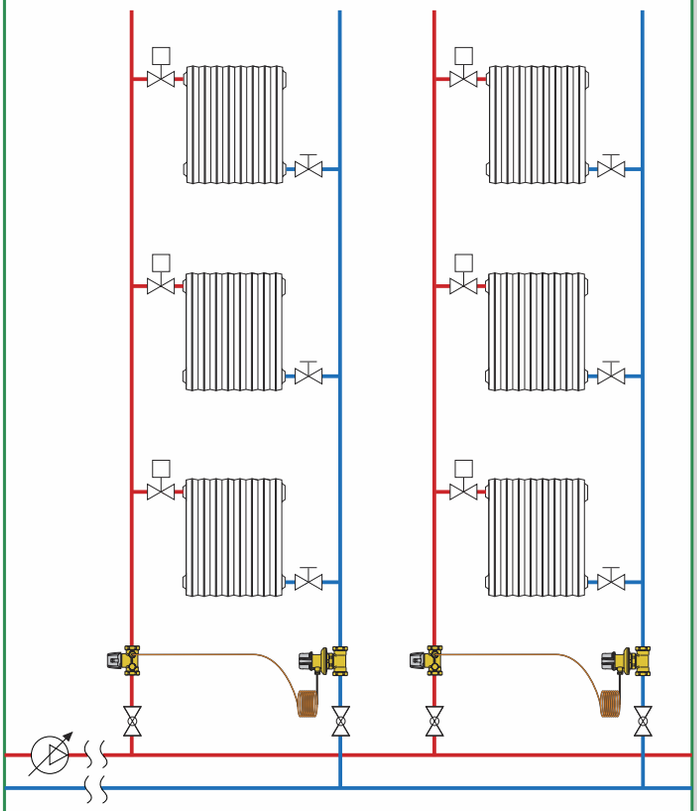
BALANCING DEVICES

This diagram is just an indication

DYNAMIC BALANCING WITH AUTOFLOW®



BALANCING WITH MANUAL AND DIFFERENTIAL PRESSURE CONTROL VALVES



Pressure independent control valve (PICV) FLOWMATIC®
Automatic flow rate regulators AUTOFLOW®
Strainers
Automatic flow rate regulator with stainless steel cartridge - flanged version AUTOFLOW®
Flow rate regulator with adjustable cartridge
Balancing valve with flow meter
Balancing valves
Counterflanges
Differential pressure control valve (DPCV)
Electronic flow rate and differential pressure measuring station

PRESSURE INDEPENDENT CONTROL VALVE (PICV)

145 FLOWMATIC®

tech. broch. 01262

Pressure independent control valve FLOWMATIC®.
CR dezincification resistant alloy body.
Male union connections.
Flow rate regulator in polymer with membrane in EPDM.
Graduated scale indicator.
Max. working pressure: 16 bar.
Temperature range: -20–120°C.
Max. percentage of glycol: 50%.
Δp range: 25–400 kPa.
Fitted for connection of pressure ports.
Fitted for 145 series actuator and 656. series thermo-electric actuator.

Code	DN	Conn.	Flow rate range (m³/h)		
145430 H40	15	3/8″	0,08–0,40	1	10
145430 H80	15	3/8″	0,08–0,80	1	10
145440 H40	15	1/2″	0,08–0,40	1	10
145440 H80	15	1/2″	0,08–0,80	1	10
145550 H40	20	3/4″	0,08–0,40	1	10
145550 H80	20	3/4″	0,08–0,80	1	10
145550 1H2	20	3/4″	0,12–1,20	1	10
145550 1H8	25	3/4″	0,18–1,80	1	10
145560 H40	20	1″	0,08–0,40	1	10
145560 H80	20	1″	0,08–0,80	1	10
145560 1H2	20	1″	0,12–1,20	1	10
145660 1H8	25	1″	0,18–1,80	1	10
145660 3H0	25	1″	0,30–3,00	1	10
145770 1H8	25	1 1/4″	0,18–1,80	1	10
145770 3H0	25	1 1/4″	0,30–3,00	1	10

6561

tech. broch. 01042

Thermo-electric actuator. Normally closed.
Supply: 230 V (ac) or 24 V (ac)/(dc).
Power consumption: 3 W.
Starting current: ≤ 1 A.
Max. ambient temperature: 50°C.
Protection class: IP 44 (vertical stem).
Cable length: 80 cm.

CE

Code	Supply voltage V		
656102	230	1	10
656104	24	1	10

145 FLOWMATIC®

tech. broch. 01262

Pressure independent control valve FLOWMATIC®.
CR dezincification resistant alloy body.
Flow rate regulator in polymer with membrane in EPDM.
Graduated scale indicator.
Max. working pressure: 16 bar.
Temperature range: -20–120°C.
Max. percentage of glycol: 50%.
Δp range: 25–400 kPa.
Fitted for connection of pressure ports.
Fitted for 145 series actuator and 656. series thermo-electric actuator.

EUROCONUS male connections

Code	DN	Conn.	Flow rate range (m³/h)		
145552 H40	20	3/4″	0,08–0,40	1	10
145552 H80	20	3/4″	0,08–0,80	1	10
145552 1H2	20	3/4″	0,12–1,20	1	10

145 FLOWMATIC®

tech. broch. 01262

Proportional linear actuator for control valve 145 series.
Supply: 24 V (ac/dc).
Ambient temperature range: 0–50°C.
Protection class: IP 43.
Connection: M30 p. 1,5.
Cable length: 1,5 m.

Code	Tension V	Control		
145014	24	0–10 V	1	–

145

Pressure independent control valve.
Brass body.
Female connections.
Graduated scale indicator.
Max. working pressure: 25 bar.
Temperature range: -20–120°C.
Max. percentage of glycol: 50%.
Δp range: 16–400 kPa.
With pressure ports.

Code	DN	Conn.	Flow rate range (m³/h)		
145771	32	1 1 /4″	0,86– 4,63	1	–
145881	40	1 1 /2″	1,9 –13,65	1	–
145991	50	2″	1,9 –13,65	1	–

NEW

145

Proportional linear actuator for control valve 145 series.
Supply: 24 V (ac/dc).
Ambient temperature range: -18–50°C.
Protection class: IP 54.
Connection: M30 p. 1,5.
Lenght of supply cable: 1 m.

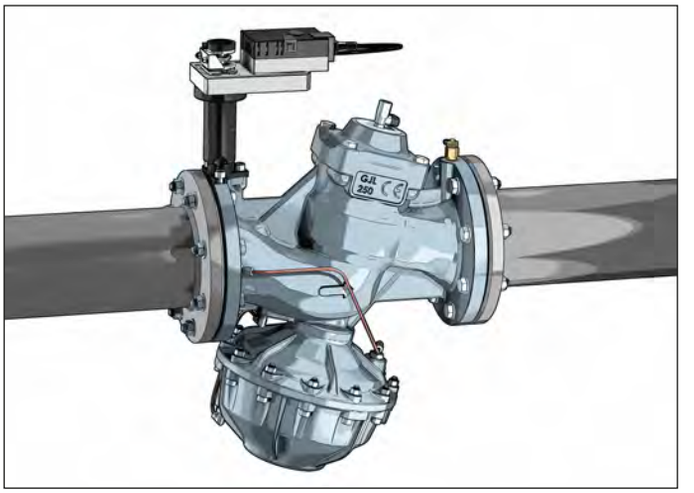
Code	Tension V	Control	Use		
145015	24	0–10 V	DN 32	1	–
145016	24	0–10 V	DN 40 - DN 50	1	–

PRESSURE INDEPENDENT CONTROL VALVE (PICV)

NEW

146

Pressure independent control valve.
Grey cast iron body.
Flanged connections PN 16.
Max. working pressure: 16 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.
Δp range: 30–400 kPa.
With pressure ports.
To be coupled with
flat counterflanges EN 1092-2.



Code	DN	Flow rate range (m³/h)		
146060	65	5– 28	1	–
146080	80	6– 38	1	–
146100	100	8– 75	1	–
146120	125	14–125	1	–
146150	150	16–160	1	–

146

Manual actuator
for pressure independent control valve
146 series.

Code		
146000	1	–

146

Rotational proportional actuator
for regulating valve 146 series.
Supply: 24 V (ac/dc).
Ambient temperature range: -30÷50°C.
Protection class: IP 54.
Manual override.

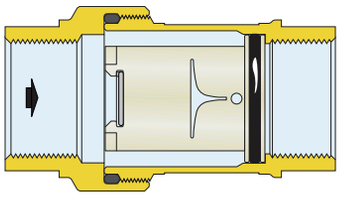
Code	Tension V	Control	Use		
146014	24	0–10 V	DN 65 - DN 80	1	–
146015	24	0–10 V	DN 100–DN 150	1	–

COMPACT AUTOMATIC FLOW RATE REGULATOR WITH HIGH RESISTANCE POLYMER CARTRIDGE

127 AUTOFLOW®

tech. broch. 01166

Compact automatic flow rate regulator.
Brass body.
AUTOFLOW® cartridge:
1/2"–11/4" in high resistance polymer,
1 1/2" - 2" in high resistance polymer and stainless steel.
Max. working pressure: 16 bar.
Temperature range: 0–100°C.
Max. percentage of glycol: 50%.
Δp range: 15–200 kPa.
Flow rates: 0,085–11,0 m³/h.
Accuracy: ±10%.



Code			
127141 ●●●	1/2"	1	–
127151 ●●●	3/4"	1	–
127161 ●●●	1"	1	–
127171 ●●●	1 1/4"	1	–
127181 ●●●	1 1/2"	1	–
127191 ●●●	2"	1	–

Code	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
127141 ●●●	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2
127151 ●●●	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6
127161 ●●●	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,0
127171 ●●●	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,0
127181 ●●●	15	15–200	4,5; 4,75; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
127191 ●●●	15	15–200	4,5; 4,75; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0

Minimum differential pressure required

Equal to the minimum working Δp of the AUTOFLOW® cartridge (15 kPa).

Spare AUTOFLOW® polymer cartridge complete with metal plate and metal chain for fixing to the body of the AUTOFLOW® device. For 127 series.

For 1/2" and 3/4" bodies

Code	Flow rate (m³/h)
02M08 XXG	0,085
02M12 XXG	0,12
02M15 XXG	0,15
02M20 XXG	0,20
02M25 XXG	0,25
02M30 XXG	0,30
02M35 XXG	0,35
02M40 XXG	0,40
02M50 XXG	0,50
02M60 XXG	0,60
02M70 XXG	0,70
02M80 XXG	0,80
02M90 XXG	0,90
021M0 XXG	1,00
021M2 XXG	1,20
021M4 XXG	1,40
021M6 XXG	1,60

For 1" and 1 1/4" bodies, with adapter

Code	Flow rate (m³/h)
02M50 XXH	0,50
02M60 XXH	0,60
02M70 XXH	0,70
02M80 XXH	0,80
02M90 XXH	0,90
021M0 XXH	1,00
021M2 XXH	1,20
021M4 XXH	1,40
021M6 XXH	1,60

For 1" and 1 1/4" bodies

Code	Flow rate (m³/h)
041M8 XXH	1,80
042M0 XXH	2,00
042M2 XXH	2,25
042M5 XXH	2,50
042M7 XXH	2,75
043M0 XXH	3,00
043M2 XXH	3,25
043M5 XXH	3,50
043M7 XXH	3,75
044M0 XXH	4,00
044M2 XXH	4,25
044M5 XXH	4,50
044M7 XXH	4,75
045M0 XXH	5,00

For 1 1/2" and 2" bodies, with adapter

Code	Flow rate (m³/h)
044M5 XXI	4,50
044M7 XXI	4,75
045M0 XXI	5,00

For 1 1/2" and 2" bodies

Code	Flow rate (m³/h)
055M5 XXI	5,50
056M0 XXI	6,00
056M5 XXI	6,50
057M0 XXI	7,00
057M5 XXI	7,50
058M0 XXI	8,00
058M5 XXI	8,50
059M0 XXI	9,00
059M5 XXI	9,50
0510M XXI	10,0
0511M XXI	11,0

COMPACT AUTOMATIC FLOW RATE REGULATOR WITH HIGH RESISTANCE POLYMER CARTRIDGE

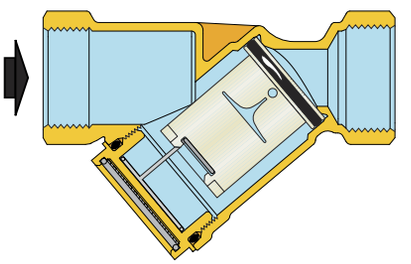
NEW

128
AUTOFLOW®

tech. broch. 01269

Compact automatic flow rate regulator.
Brass body.
AUTOFLOW® cartridge: in high resistance polymer.
Max. working pressure: 16 bar.
Temperature range: 0–100°C.
Max. percentage of glycol: 50%.
Δp range: 15–200 kPa.
Flow rates: 0,085–1,4 m³/h.
Accuracy: ±10%.

Code			
128141 ●●●	1/2"	1	–
128151 ●●●	3/4"	1	–



Code	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
128141 ●●●	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2
128151 ●●●	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4

Minimum differential pressure required

Equal to the minimum working Δp of the AUTOFLOW® cartridge (15 kPa).
Pump head $H = \Delta p_{circuit} + \Delta p_{requise}$

Spare AUTOFLOW® polymer cartridge complete with metal plate and retaining ring for fixing to the body of the AUTOFLOW® device. For 128 series.

Code	Flow rate (m³/h)	Code	Flow rate (m³/h)	Code	Flow rate (m³/h)
02M08 XXL	0,085	**02**M35 XXL	0,35	**02**M90 XXL	0,90
02M12 XXL	0,12	**02**M40 XXL	0,40	**02**1M0 XXL	1,00
02M15 XXL	0,15	**02**M50 XXL	0,50	**02**1M2 XXL	1,20
02M20 XXL	0,20	**02**M60 XXL	0,60	**02**1M4 XXL	1,40
02M25 XXL	0,25	**02**M70 XXL	0,70		
02M30 XXL	0,30	**02**M80 XXL	0,80		

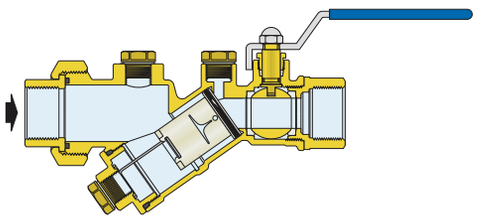
AUTOMATIC FLOW RATE REGULATOR WITH HIGH RESISTANCE POLYMER CARTRIDGE AND BALL VALVE

121 AUTOFLOW®

tech. broch. 01141

Combination of automatic flow rate regulator and ball valve.
CR dezincification resistant alloy body.
AUTOFLOW® cartridge:
1/2"–11/4" in high resistance polymer,
1 1/2" - 2" in high resistance polymer and stainless steel.
Max. working pressure: 25 bar.
Temperature range: -20–100°C.
Max. percentage of glycol: 50%.
Δp range: 15–200 kPa.
Flow rates: 0,085–11,0 m³/h.
Accuracy: ±10%.

Fitted for connection of pressure ports and drain valve.



Code			
121141 ●●●	1/2"	1	–
121151 ●●●	3/4"	1	–
121161 ●●●	1"	1	–
121171 ●●●	1 1/4"	1	–
121181 ●●●	1 1/2"	1	–
121191 ●●●	2"	1	–

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
121141 ●●●	6,90	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2
121151 ●●●	7,73	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6
121161 ●●●	18,00	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,0
121171 ●●●	18,50	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,0
121181 ●●●	47,24	15	15–200	5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
121191 ●●●	48,89	15	15–200	5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0

Minimum differential pressure required

This is given by the sum of two values:
1. the minimum working Δp of the AUTOFLOW® cartridge;
2. the Δp required for the nominal flow rate to pass through the valve body. This value can be determined on the basis of the values of Kv shown above referring to the valve body.

Spare AUTOFLOW® polymer cartridge complete with metal plate and metal chain for fixing to the body of the AUTOFLOW® device. For 121 and 126 series.

NOTE:
When ordering, give the full code of the AUTOFLOW® device into which the cartridge is to be fitted (code shown on the metal plate supplied with every AUTOFLOW® unit).

For 1/2" and 3/4" bodies

Code	Flow rate (m³/h)
02M08 XXX	0,085
02M12 XXX	0,12
02M15 XXX	0,15
02M20 XXX	0,20
02M25 XXX	0,25
02M30 XXX	0,30
02M35 XXX	0,35
02M40 XXX	0,40
02M50 XXX	0,50
02M60 XXX	0,60
02M70 XXX	0,70
02M80 XXX	0,80
02M90 XXX	0,90
021M0 XXX	1,00
021M2 XXX	1,20
021M4 XXX	1,40
021M6 XXX	1,60

For 1" and 1 1/4" bodies, with adapter

Code	Flow rate (m³/h)
02M50 XXF	0,50
02M60 XXF	0,60
02M70 XXF	0,70
02M80 XXF	0,80
02M90 XXF	0,90
021M0 XXF	1,00
021M2 XXF	1,20
021M4 XXF	1,40
021M6 XXF	1,60

For 1" and 1 1/4" bodies, with adapter

Code	Flow rate (m³/h)
02M50 XXC	0,50
02M60 XXC	0,60
02M70 XXC	0,70
02M80 XXC	0,80
02M90 XXC	0,90
021M0 XXC	1,00
021M2 XXC	1,20
021M4 XXC	1,40
021M6 XXC	1,60

For 1" and 1 1/4" bodies

Code	Flow rate (m³/h)
041M8 XXC	1,80
042M0 XXC	2,00
042M2 XXC	2,25
042M5 XXC	2,50
042M7 XXC	2,75
043M0 XXC	3,00
043M2 XXC	3,25
043M5 XXC	3,50
043M7 XXC	3,75
044M0 XXC	4,00
044M2 XXC	4,25
044M5 XXC	4,50
044M7 XXC	4,75
045M0 XXC	5,00

For 1 1/2" and 2" bodies

Code	Flow rate (m³/h)
055M5 XXD	5,50
056M0 XXD	6,00
056M5 XXD	6,50
057M0 XXD	7,00
057M5 XXD	7,50
058M0 XXD	8,00
058M5 XXD	8,50
059M0 XXD	9,00
059M5 XXD	9,50
0510M XXD	10,0
0511M XXD	11,0

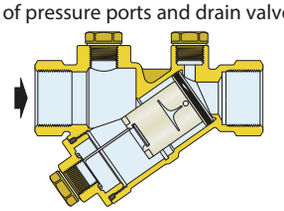
AUTOMATIC FLOW RATE REGULATOR WITH HIGH RESISTANCE POLYMER CARTRIDGE

126 AUTOFLOW®

tech. broch. 01141

Automatic flow rate regulator.
CR dezincification resistant alloy body.
AUTOFLOW® cartridge:
1/2"–11/4" in high resistance polymer,
1 1/2" - 2" in high resistance polymer and stainless steel.
Max. working pressure: 25 bar.
Temperature range: -20–100°C.
Max. percentage of glycol: 50%.
Δp range: 15–200 kPa.
Flow rates: 0,085–11,0 m³/h.
Accuracy: ±10%.

Fitted for connection of pressure ports and drain valve.



Code			
126141 ●●●	1/2"	1	–
126151 ●●●	3/4"	1	–
126161 ●●●	1"	1	–
126171 ●●●	1 1/4"	1	–
126181 ●●●	1 1/2"	1	–
126191 ●●●	2"	1	–

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
126141 ●●●	6,69	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2
126151 ●●●	7,58	15	15–200	0,085; 0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6
126161 ●●●	14,00	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,00
126171 ●●●	14,50	15	15–200	0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 4,75; 5,00
126181 ●●●	34,72	15	15–200	5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
126191 ●●●	37,38	15	15–200	5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0

Minimum differential pressure required

This is given by the sum of two values:
1. the minimum working Δp of the AUTOFLOW® cartridge;
2. the Δp required for the nominal flow rate to pass through the valve body. This value can be determined on the basis of the values of Kv shown above referring to the valve body.

Method of coding AUTOFLOW® 121 - 126 - 127 - 128 series

For correct identification of the device, fill in the form indicating: series, size, flow rate and Δp range.

Complete code

1st	2nd	3rd	4th	5th	6th	7th	8th	9th
			1		1			
SERIES				SIZE		FLOW RATE - Δp RANGE		

SERIES — 1st 2nd 3rd — The first three digits indicate the series

121	AUTOFLOW® regulator and ball valve
126	AUTOFLOW® regulator
127	AUTOFLOW® compact regulator
128	AUTOFLOW® compact regulator

SIZE — 5th — The fifth digit indicates the size

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Digit	4	5	6	7	8	9

FLOW RATE - Δp RANGE — 7th 8th 9th — The last three digits indicate the available flow rate

Δp range 15–200 kPa

m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit
0,085	M08	0,40	M40	1,20	1M2	2,75	2M7	4,50	4M5	7,50	7M5
0,12	M12	0,50	M50	1,40	1M4	3,00	3M0	4,75	4M7	8,00	8M0
0,15	M15	0,60	M60	1,60	1M6	3,25	3M2	5,00	5M0	8,50	8M5
0,20	M20	0,70	M70	1,80	1M8	3,50	3M5	5,50	5M5	9,00	9M0
0,25	M25	0,80	M80	2,00	2M0	3,75	3M7	6,00	6M0	9,50	9M5
0,30	M30	0,90	M90	2,25	2M2	4,00	4M0	6,50	6M5	10,0	10M
0,35	M35	1,00	1M0	2,50	2M5	4,25	4M2	7,00	7M0	11,0	11M

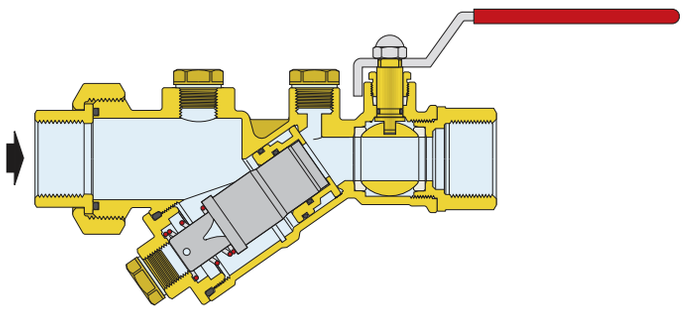
AUTOMATIC FLOW RATE REGULATOR WITH STAINLESS STEEL CARTRIDGE AND BALL VALVE

120 AUTOFLOW®

tech. broch. 01041

Combination of automatic flow rate regulator and ball valve.
CR dezincification resistant alloy body.
Stainless steel AUTOFLOW® cartridge.
Max. working pressure: 25 bar.
Temperature range: 0–110°C.
Max. percentage of glycol: 50%.
Δp range: 7–100 kPa; 22–220 kPa; 35–410 kPa.
Flow rates: 0,12–15,5 m³/h.
Accuracy: ±5%.

Fitted for connection of pressure ports and drain valve.



Code			
120141 ●●●	1/2″	1	–
120151 ●●●	3/4″	1	–
120161 ●●●	1″	1	–
120171 ●●●	1 1/4″	1	–
120181 ●●●	1 1/2″	1	–
120191 ●●●	2″	1	–

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
120141 ●●●	6,90	7	7–100	0,45; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0
120151 ●●●	7,73	7	7–100	0,45; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0
120161 ●●●	17,04	7	7–100	0,7; 0,8; 0,9; 1,0

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
120141 ●●●	6,90	22	22–220	0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8
120151 ●●●	7,73	22	22–220	0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8
120161 ●●●	17,04	22	22–220	0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25
120171 ●●●	17,74	22	22–220	0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25
120181 ●●●	47,24	22	22–220	2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
120191 ●●●	48,89	22	22–220	2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
120141 ●●●	6,90	35	35–410	0,25; 0,35; 0,45; 0,55; 0,7; 0,9; 1,1; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75
120151 ●●●	7,73	35	35–410	0,25; 0,35; 0,45; 0,55; 0,7; 0,9; 1,1; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75
120161 ●●●	17,04	35	35–410	1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0
120171 ●●●	17,74	35	35–410	1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0
120181 ●●●	47,24	35	35–410	3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0; 12,0; 13,0; 14,5; 15,5
120191 ●●●	48,89	35	35–410	3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0; 12,0; 13,0; 14,5; 15,5

●●● *For code completion see method of coding on page 170*

Minimum differential pressure required

This is given by the sum of two values:
1. the minimum working Δp of the AUTOFLOW® cartridge;
2. the Δp required for the nominal flow rate to pass through the valve body. This value can be determined on the basis of the values of Kv shown above referring to the valve body.

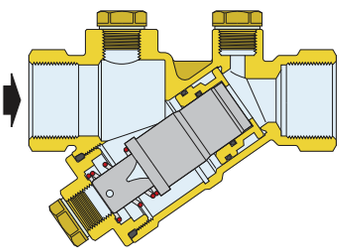
AUTOMATIC FLOW RATE REGULATOR WITH STAINLESS STEEL CARTRIDGE

125 AUTOFLOW®

tech. broch. 01041

Automatic flow rate regulator.
CR dezincification resistant alloy body.
Stainless steel AUTOFLOW® cartridge.
Max. working pressure: 25 bar.
Temperature range: -20–110°C.
Max. percentage of glycol: 50%.
Δp range: 7–100 kPa; 22–220 kPa; 35–410 kPa.
Flow rates: 0,12–22,5 m³/h.
Accuracy: ±5%.

Fitted for connection of pressure ports and drain valve.



Code			
125141 ●●●	1/2″	1	–
125151 ●●●	3/4″	1	–
125161 ●●●	1″	1	–
125171 ●●●	1 1/4″	1	–
125181 ●●●	1 1/2″	1	–
125191 ●●●	2″	1	–
125101 ●●●	2 1/2″	1	–

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
125141 ●●●	6,69	7	7–100	0,45; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0
125151 ●●●	7,58	7	7–100	0,45; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0
125161 ●●●	13,42	7	7–100	0,7; 0,8; 0,9; 1,0

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
125141 ●●●	6,69	22	22–220	0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8
125151 ●●●	7,58	22	22–220	0,12; 0,15; 0,2; 0,25; 0,3; 0,35; 0,4; 0,5; 0,6; 0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8
125161 ●●●	13,42	22	22–220	0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25
125171 ●●●	13,26	22	22–220	0,7; 0,8; 0,9; 1,0; 1,2; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25
125181 ●●●	34,72	22	22–220	2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
125191 ●●●	37,38	22	22–220	2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0
125101 ●●●	75,82	22	22–220	9,0; 9,5; 10,0; 11,0; 12,0; 13,5; 14,5; 15,5; 16,5; 17,0; 18,0; 19,5; 20,5; 21,5; 22,5

Code	Kv (m³/h)	Min. working Δp (kPa)	Δp range (kPa)	Flow rates (m³/h)
125141 ●●●	6,69	35	35–410	0,25; 0,35; 0,45; 0,55; 0,7; 0,9; 1,1; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75
125151 ●●●	7,58	35	35–410	0,25; 0,35; 0,45; 0,55; 0,7; 0,9; 1,1; 1,4; 1,6; 1,8; 2,0; 2,25; 2,5; 2,75
125161 ●●●	13,42	35	35–410	2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0
125171 ●●●	13,26	35	35–410	2,5; 2,75; 3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 5,0; 5,5; 6,0
125181 ●●●	34,72	35	35–410	3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0; 12,0; 13,0; 14,5; 15,5
125191 ●●●	37,38	35	35–410	3,0; 3,25; 3,5; 3,75; 4,0; 4,25; 4,5; 6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 10,0; 11,0; 12,0; 13,0; 14,5; 15,5
125101 ●●●	75,82	35	35–410	6,5; 7,0; 7,5; 8,0; 8,5; 9,0; 9,5; 11,0; 18,0; 19,0; 20,0; 21,0; 22,0

●●● *For code completion see method of coding on page 170*

Minimum differential pressure required

This is given by the sum of two values:
1. the minimum working Δp of the AUTOFLOW® cartridge;
2. the Δp required for the nominal flow rate to pass through the valve body. This value can be determined on the basis of the values of Kv shown above referring to the valve body.

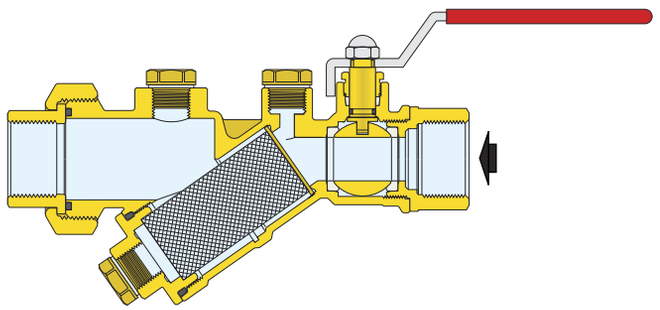
STRAINERS

120
STRAINER

tech. broch. 01041

Combination of Y-strainer and ball valve.
CR dezincification resistant alloy body.
Stainless steel strainer cartridge.
Max. working pressure: 25 bar.
Temperature range: 0–110°C.
Max. percentage of glycol: 50%.
Strainer mesh size Ø: 1/2"–1 1/4": 0,87 mm; 1 1/2" and 2": 0,73 mm.

Fitted for connection of pressure ports and drain valve.



Code		Kv (m³/h)		
120141 000	1/2"	6,87	1	–
120151 000	3/4"	7,25	1	–
120161 000	1"	16,65	1	–
120171 000	1 1/4"	17,23	1	–
120181 000	1 1/2"	39,13	1	–
120191 000	2"	39,69	1	–

Pressure drop

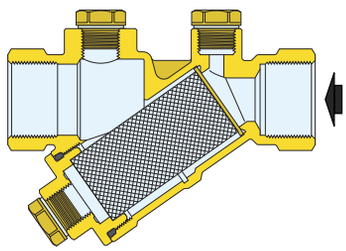
- The indicated Kv value refers to the valve complete with strainer.

125
STRAINER

tech. broch. 01041

Y-strainer.
CR dezincification resistant alloy body.
Stainless steel strainer cartridge.
Max. working pressure: 25 bar.
Temperature range: -20–110°C.
Max. percentage of glycol: 50%.
Strainer mesh size Ø: 1/2"–1 1/4": 0,87 mm; 1 1/2"–2 1/2": 0,73 mm.

Fitted for connection of pressure ports and drain valve.



Code		Kv (m³/h)		
125141 000	1/2"	6,88	1	–
125151 000	3/4"	7,05	1	–
125161 000	1"	14,10	1	–
125171 000	1 1/4"	14,94	1	–
125181 000	1 1/2"	32,27	1	–
125191 000	2"	36,21	1	–
125101 000	2 1/2"	68,25	1	–

Pressure drop

- The indicated Kv value refers to the valve complete with strainer.

STAINLESS STEEL CARTRIDGES

Spare AUTOFLOW® cartridge complete with metal tag and metal chain for fixing to the body of the AUTOFLOW® device.
Available in different models depending on the flow rate.
The different colours identify the available models.

NOTE: When ordering, give the full code of the AUTOFLOW® device into which the cartridge is to be fitted (code shown on the metal plate supplied with every AUTOFLOW® device).

Δp range 7–100 kPa

Code	Flow rate (m³/h)
03S45 XXX	0,45
03S50 XXX	0,50
03S60 XXX	0,60
03S70 XXX	0,70
03S80 XXX	0,80
03S90 XXX	0,90
031S0 XXX	1,00

For 1″ new bodies with new cartridge.

Code	Flow rate (m³/h)
04S70 XXF	0,70
04S80 XXF	0,80
04S90 XXF	0,90
041S0 XXF	1,00

Δp range 22–220 kPa

Code	Flow rate (m³/h)
03L12 XXX	0,12
03L15 XXX	0,15
03L20 XXX	0,20
03L25 XXX	0,25
03L30 XXX	0,30
03L35 XXX	0,35
03L40 XXX	0,40
03L50 XXX	0,50
03L60 XXX	0,60
03L70 XXX	0,70
03L80 XXX	0,80
03L90 XXX	0,90
031L0 XXX	1,00
031L2 XXX	1,20
031L4 XXX	1,40
031L6 XXX	1,60
031L8 XXX	1,80

For 1″ - 1 1/4″ new bodies with new cartridge.

Code	Flow rate (m³/h)
04L70 XXF	0,70
04L80 XXF	0,80
04L90 XXF	0,90
041L0 XXF	1,00
041L2 XXF	1,20
041L4 XXF	1,40
041L6 XXF	1,60
041L8 XXF	1,80
042L0 XXF	2,00
042L2 XXF	2,25
042L5 XXF	2,50
042L7 XXF	2,75
043L0 XXF	3,00
043L2 XXF	3,25
043L5 XXF	3,50
043L7 XXF	3,75
044L0 XXF	4,00
044L2 XXF	4,25

For 2 1/2″ new bodies with new cartridge.

Code	Flow rate (m³/h)
069L0 XXF	9,00
069L5 XXF	9,50
0610L XXF	10,00
0611L XXF	11,00
0612L XXF	12,00
0613L XXF	13,00
0614L XXF	14,00
0615L XXF	15,00
0616L XXF	16,00
0617L XXF	17,00
0618L XXF	18,00
0619L XXF	19,50
0620L XXF	20,50
0621L XXF	21,50
0622L XXF	22,50

Code	Flow rate (m³/h)
052L7 XXX	2,75
053L0 XXX	3,00
053L2 XXX	3,25
053L5 XXX	3,50
053L7 XXX	3,75
054L0 XXX	4,00
054L2 XXX	4,25
054L5 XXX	4,50
055L0 XXX	5,00
055L5 XXX	5,50
056L0 XXX	6,00
056L5 XXX	6,50
057L0 XXX	7,00
057L5 XXX	7,50
058L0 XXX	8,00
058L5 XXX	8,50
059L0 XXX	9,00
059L5 XXX	9,50
0510L XXX	10,00
0511L XXX	11,00

Δp range 35–410 kPa

Code	Flow rate (m³/h)
03H25 XXX	0,25
03H35 XXX	0,35
03H45 XXX	0,45
03H55 XXX	0,55
03H70 XXX	0,70
03H90 XXX	0,90
031H1 XXX	1,10
031H4 XXX	1,40
031H6 XXX	1,60
031H8 XXX	1,80
032H0 XXX	2,00
032H2 XXX	2,25
032H5 XXX	2,50
032H7 XXX	2,75
043H0 XXX	3,00
043H2 XXX	3,25
043H5 XXX	3,50
043H7 XXX	3,75
044H0 XXX	4,00
044H2 XXX	4,25
044H5 XXX	4,50
056H5 XXX	6,50
057H0 XXX	7,00
057H5 XXX	7,50
058H0 XXX	8,00
058H5 XXX	8,50
059H0 XXX	9,00
059H5 XXX	9,50
0510H XXX	10,00
0511H XXX	11,00
0512H XXX	12,00
0513H XXX	13,00
0514H XXX	14,50
0515H XXX	15,50

For 1″ - 1 1/4″ new bodies with new cartridge.

Code	Flow rate (m³/h)
042H5 XXF	2,50
042H7 XXF	2,75
043H0 XXF	3,00
043H2 XXF	3,25
043H5 XXF	3,50
043H7 XXF	3,75
044H0 XXF	4,00
044H2 XXF	4,25
044H5 XXF	4,50
045H0 XXF	5,00
045H5 XXF	5,50
046H0 XXF	6,00

For 2 1/2″ new bodies with new cartridge.

Code	Flow rate (m³/h)
0618H XXF	18,00
0619H XXF	19,00
0620H XXF	20,00
0621H XXF	21,00
0622H XXF	22,00

Method of coding AUTOFLOW® 120 - 125 series

For correct identification of the device, fill in the form indicating: series, size, flow rate and Δp range.

Complete code

1st	2nd	3rd	4th	5th	6th	7th	8th	9th
			1		1			
SERIES				SIZE		FLOW RATE AND Δp RANGE		

SERIES

1st 2nd 3rd

The first three digits indicate the series:

120	AUTOFLOW® regulator and ball valve
125	AUTOFLOW® regulator

SIZE

5th

The fifth digit indicates the size:

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Digit	4	5	6	7	8	9	0

FLOW RATE AND Δp RANGE

7th 8th 9th

The last three digits indicate the available flow rates.

Δp range 7–100 kPa

m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit
0,45	S45	0,60	S60	0,80	S80	1,00	1S0
0,50	S50	0,70	S70	0,90	S90		

Δp range 22–220 kPa

m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit
0,12	L12	0,70	L70	2,25	2L2	4,50	4L5	9,00	9L0	17,0	17L
0,15	L15	0,80	L80	2,50	2L5	5,00	5L0	9,50	9L5	18,0	18L
0,20	L20	0,90	L90	2,75	2L7	5,50	5L5	10,0	10L	19,5	19L
0,25	L25	1,00	1L0	3,00	3L0	6,00	6L0	11,0	11L	20,5	20L
0,30	L30	1,20	1L2	3,25	3L2	6,50	6L5	12,0	12L	21,5	21L
0,35	L35	1,40	1L4	3,50	3L5	7,00	7L0	13,5	13L	22,5	22L
0,40	L40	1,60	1L6	3,75	3L7	7,50	7L5	14,5	14L		
0,50	L50	1,80	1L8	4,00	4L0	8,00	8L0	15,5	15L		
0,60	L60	2,00	2L0	4,25	4L2	8,50	8L5	16,5	16L		

Δp range 35–410 kPa

m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit	m³/h	digit
0,25	H25	1,60	1H6	3,50	3H5	6,50	6H5	11,0	11H	21,0	21H
0,35	H35	1,80	1H8	3,75	3H7	7,00	7H0	12,0	12H	22,0	22H
0,45	H45	2,00	2H0	4,00	4H0	7,50	7H5	13,0	13H		
0,55	H55	2,25	2H2	4,25	4H2	8,00	8H0	14,5	14H		
0,70	H70	2,50	2H5	4,50	4H5	8,50	8H5	15,5	15H		
0,90	H90	2,75	2H7	5,00	5H0	9,00	9H0	18,0	18H		
1,10	1H1	3,00	3H0	5,50	5H5	9,50	9H5	19,0	19H		
1,40	1H4	3,25	3H2	6,00	6H0	10,0	10H	20,0	20H		

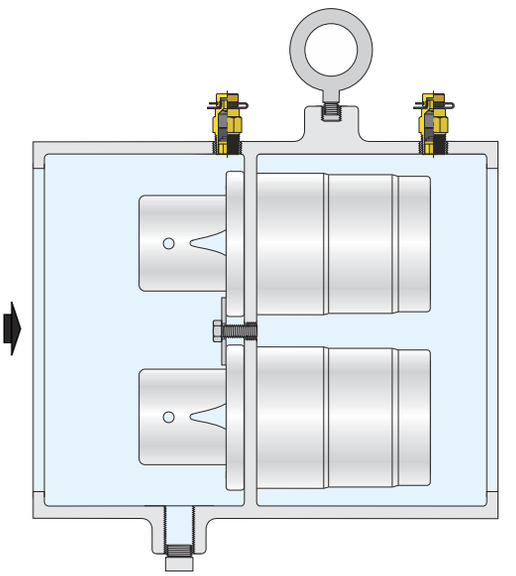
AUTOMATIC FLOW REGULATOR WITH STAINLESS STEEL CARTRIDGE

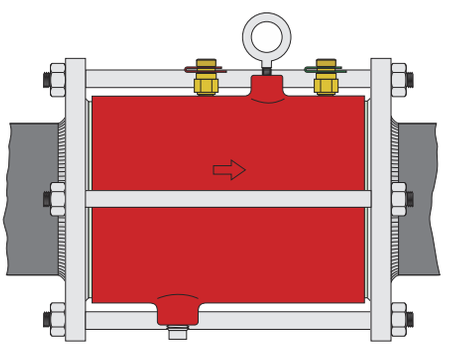
103
AUTOFLOW®

tech. broch. 01041

Automatic flow rate regulator, flanged version.
Cast iron body.
Stainless steel AUTOFLOW® cartridge.
Max. working pressure: 16 bar.
Temperature range: -20–110°C.
Max. percentage of glycol: 50%.
Range Δp: 22–220 kPa; 35–410 kPa.
Flow rates: 9–3850 m³/h.
Accuracy: ±5%.

Supplied with flat counterflanges EN 1092-1 PN 16, rods, gasket and quick-fit pressure test ports.





Code	DN	Min. working Δp (kPa)	Flow rates (m³/h)	Δp range (kPa)		
103111 ●●●	65	22	9– 17	22–220	1	–
103113 ●●●	65	35	18– 22	35–410	1	–
103121 ●●●	80	22	9– 17	22–220	1	–
103123 ●●●	80	35	18– 22	35–410	1	–
103131 ●●●	100	22	9– 17	22–220	1	–
103133 ●●●	100	35	18– 22	35–410	1	–
103141 ●●●	125 *	22	20– 47	22–220	1	–
103143 ●●●	125 *	35	20– 59	35–410	1	–
103151 ●●●	150	22	40– 93	22–220	1	–
103153 ●●●	150	35	40–118	35–410	1	–
103161 ●●●	200	22	80–169	22–220	1	–
103163 ●●●	200	35	80–213	35–410	1	–
103171 ●●●	250	22	150–262	22–220	1	–
103173 ●●●	250	35	150–331	35–410	1	–
103181 ●●●	300	22	95–460	22–220	1	–
103183 ●●●	300	35	115–580	35–410	1	–
103191 ●●●	350	22	160–580	22–220	1	–
103193 ●●●	350	35	190–730	35–410	1	–

●●● *For code completion see method of coding in the following pages up to DN 150*
- Flow rates available with ~ 1 m³/h increments
*- **Available on request with sizes from DN 400 to DN 800, with flow rates up to 3850 m³/h***

** Available on request with 4" ANSI flanges*

Minimum differential pressure required

This is equal to the min. working Δp of the AUTOFLOW® cartridge (22 or 35 kPa).

Method of coding AUTOFLOW® 103 series

For correct identification of the device, fill in the form indicating: size, Δp range and flow rate.

Complete code

1st	2nd	3rd	4th	5th	6th	7th	8th	9th
1	0	3	1					
SERIES				SIZE	Δp RANGE	FLOW RATE		

SIZE — 5th

The fifth digit indicates the size

DN	65	80	100	125	150	200	250	300	350
Digit	1	2	3	4	5	6	7	8	9

Δp RANGE — 6th

The sixth digit indicates differential pressure range (Δp range)

kPa	22–220	35–410
Digit	1	3

FLOW RATE — 7th 8th 9th

The last three digits indicate the flow rate values (See tables below and on the following page)

Coding tables of flow rates available with Δp range 22–220 and 35–410 kPa for sizes from DN 65 to DN 100

Δp 22–220 kPa

DN 65

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103111	009	9
103111	010	10
103111	011	11
103111	012	12
103111	013	13
103111	014	14
103111	015	15
103111	016	16
103111	017	17

DN 80

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103121	009	9
103121	010	10
103121	011	11
103121	012	12
103121	013	13
103121	014	14
103121	015	15
103121	016	16
103121	017	17

DN 100

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103131	009	9
103131	010	10
103131	011	11
103131	012	12
103131	013	13
103131	014	14
103131	015	15
103131	016	16
103131	017	17

Δp 35–410 kPa

DN 65

COMPLETE CODE	Flow rate code	Portata (m³/h)
103113	018	18
103113	019	19
103113	020	20
103113	021	21
103113	022	22

DN 80

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103123	018	18
103123	019	19
103123	020	20
103123	021	21
103123	022	22

DN 100

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103133	018	18
103133	019	19
103133	020	20
103133	021	21
103133	022	22

Coding tables of flow rates available with Δp range 22–220 kPa and 35–410 kPa for sizes DN 125 and DN 150

(For flow rates with sizes greater than DN 150, available on request, this indication has to be defined when ordering)

Δp 22–220 kPa

DN 125*

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103141	020	20
103141	021	21
103141	022	22
103141	023	23
103141	024	24
103141	025	25
103141	026	26
103141	027	27
103141	028	28
103141	029	29
103141	030	30
103141	031	31
103141	032	32
103141	033	33
103141	034	34
103141	035	35
103141	036	36
103141	037	37
103141	038	38
103141	039	39
103141	040	40
103141	041	41
103141	042	42
103141	043	43
103141	044	44
103141	045	45
103141	046	46
103141	047	47

DN 150

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103151	040	40
103151	041	41
103151	042	42
103151	043	43
103151	044	44
103151	045	45
103151	046	46
103151	047	47
103151	048	48
103151	049	49
103151	050	50
103151	051	51
103151	052	52
103151	053	53
103151	054	54
103151	055	55
103151	056	56
103151	057	57
103151	058	58
103151	059	59
103151	060	60
103151	061	61
103151	062	62
103151	063	63
103151	064	64
103151	065	65
103151	066	66
103151	067	67
103151	068	68
103151	069	69
103151	070	70
103151	071	71
103151	072	72
103151	073	73
103151	074	74
103151	075	75
103151	076	76
103151	077	77
103151	078	78
103151	079	79
103151	080	80
103151	081	81
103151	082	82
103151	083	83
103151	084	84
103151	085	85
103151	086	86
103151	087	87
103151	088	88
103151	089	89
103151	090	90
103151	091	91
103151	092	92
103151	093	93

Δp 35–410 kPa

DN 125*

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103143	020	20
103143	021	21
103143	022	22
103143	023	23
103143	024	24
103143	025	25
103143	026	26
103143	027	27
103143	028	28
103143	029	29
103143	030	30
103143	031	31
103143	032	32
103143	033	33
103143	034	34
103143	035	35
103143	036	36
103143	037	37
103143	038	38
103143	039	39
103143	040	40
103143	041	41
103143	042	42
103143	043	43
103143	044	44
103143	045	45
103143	046	46
103143	047	47
103143	048	48
103143	049	49
103143	050	50
103143	051	51
103143	052	52
103143	053	53
103143	054	54
103143	055	55
103143	056	56
103143	057	57
103143	058	58
103143	059	59

DN 150

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103153	040	40
103153	041	41
103153	042	42
103153	043	43
103153	044	44
103153	045	45
103153	046	46
103153	047	47
103153	048	48
103153	049	49
103153	050	50
103153	051	51
103153	052	52
103153	053	53
103153	054	54
103153	055	55

DN 150

COMPLETE CODE	Flow rate code	Flow rate (m³/h)
103153	056	56
103153	057	57
103153	058	58
103153	059	59
103153	060	60
103153	061	61
103153	062	62
103153	063	63
103153	064	64
103153	065	65
103153	066	66
103153	067	67
103153	068	68
103153	069	69
103153	070	70
103153	071	71
103153	072	72
103153	073	73
103153	074	74
103153	075	75
103153	076	76
103153	077	77
103153	078	78
103153	079	79
103153	080	80
103153	081	81
103153	082	82
103153	083	83
103153	084	84
103153	085	85
103153	086	86
103153	087	87
103153	088	88
103153	089	89
103153	090	90
103153	091	91
103153	092	92
103153	093	93
103153	094	94
103153	095	95
103153	096	96
103153	097	97
103153	098	98
103153	099	99
103153	100	100
103153	101	101
103153	102	102
103153	103	103
103153	104	104
103153	105	105
103153	106	106
103153	107	107
103153	108	108
103153	109	109
103153	110	110
103153	111	111
103153	112	112
103153	113	113
103153	114	114
103153	115	115
103153	116	116
103153	117	117
103153	118	118

* Available on request with 4" ANSI flanges

AUTOMATIC FLOW RATE REGULATOR WITH ADJUSTABLE CARTRIDGE

118

tech. broch. 01138

Automatic flow rate regulator with external adjustment cartridge.
CR dezincification resistant alloy body.
Polymer adjustable cartridge with HNBR diaphragm.
Max. working pressure: 25 bar.
Temperature range: 0–100°C.
Max. percentage of glycol: 50%.
Δp range: 17–210 kPa; 17–400 kPa; 30–400 kPa; 35–400 kPa.
Flow rates: 0,10–5,80 m³/h.
Accuracy: ±5%.

Suitable for connection of pressure ports.

Code			
118141 ●●●	1/2″	1	–
118151 ●●●	3/4″	1	–
118161 ●●●	1″	1	–
118171 ●●●	1 1/4″	1	–

Flow rate adjustment

With this type of cartridges, the flow rate can be regulated to the desired value from outside, without the necessity of shutting the valve off.
By using the special key, act on the adjustment mechanism and read the desired position on the graduated reference scale.
A double gauge, with a scale from 1 to 5 and decimal division from 1 to 9, allows exact flow rate adjustments.
Depending on the range of pressure and flow rate, cartridges are available in various colours to permit easy identification. The same colours are on the outside, on the adjuster screw and on the protection cover.

118

tech. broch. 01138

Key for cartridge adjustment.

Code			
118000		1	–

Method of coding for automatic flow rate regulator 118 series

For correct identification of the device, fill in the form indicating: series, size, flow rate and Δp range.

Complete code

1st	2nd	3rd	4th	5th	6th	7th	8th	9th
1	1	8	1		1			
SERIES				SIZE		FLOW RATE AND Δp RANGE		

SIZE — 5th

The fifth digit indicates the size

Size	1/2″	3/4″	1″	1 1/4″
Digit	1	2	3	4

FLOW RATE AND Δp RANGE — 7th 8th 9th

The last three digits indicate the available flow rate range and Δp range, with the corrisponding cartridges.
Every cartridge is marked by a specific colour.

Body size	Cartridge size	Δp range (kPa)	Flow rate range (m³/h)	Cartridge colour	Cartridge code digit
1/2″ - 3/4″	DN 20	**17–210**	**0,10–0,40**	Black	**1YB**
	DN 20	**17–210**	**0,15–0,60**	Green	**1YG**
	DN 20	**35–400**	**0,14–0,60**	Black	**1GB**
	DN 20	**35–400**	**0,24–0,90**	Green	**1GG**
	DN 20	**30–400**	**0,40–1,30**	Red	**1YR**
1″ - 1 1/4″	DN 40	**17–400**	**0,54–5,80**	Green	**2YG**

Spare cartridge

Code
F131YB
F131YG
F131GB
F131GG
F131YR
F142YG

BALANCING VALVE WITH FLOW METER

132

tech. broch. 01149

Balancing valve with flow meter.
Direct reading of flow rate.
Brass valve body and flow meter.
Ball valve for flow rate adjustment.
Graduated scale flow meter with magnetic movement flow rate indicator.

With insulation.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Max. percentage of glycol: 50%.

Code		Flow rate range (l/min)		
132402	1/2″	2– 7	1	5
132512	3/4″	5– 13	1	5
132522	3/4″	7– 28	1	5
132602	1″	10– 40	1	5
132702	1 1/4″	20– 70	1	5
132802	1 1/2″	30–120	1	5
132902	2″	50–200	1	5

NEW

132

Balancing valve with flow meter.
Direct reading of flow rate.
Cast iron body.
Brass flow meter.
Characterized ball valve for flow rate adjustment.
Graduated scale flow meter with magnetic movement flow rate indicator.

With insulation.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Max. percentage of glycol: 50%.

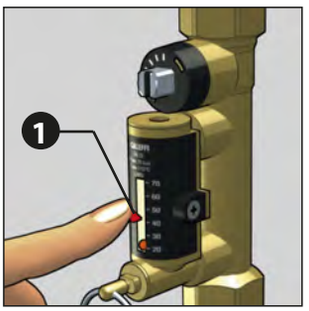
Code		Flow rate range (m^3/h)		
132060	DN 65	5–24	1	–
132080	DN 80	8–32	1	–
132100	DN 100	12–48	1	–

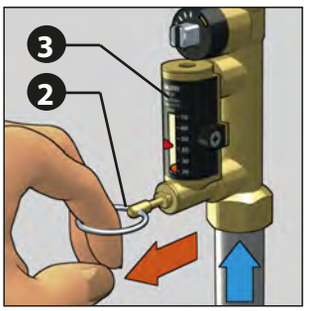
Flow rate adjustment

The flow rate is adjusted by carrying out the following operations:

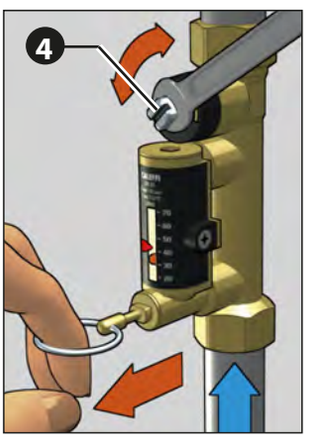
1. With the aid of the indicator (1), mark the reference flow rate at which the valve has to be set.

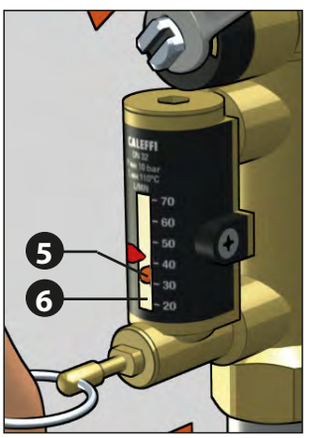
2. Use the ring (2) to open the obturator that shuts off the flow of medium in the flow meter (3) under normal operating conditions.





3. Keeping the obturator open, apply a wrench on the control stem of the valve (4) to adjust the flow rate. It is indicated by a metal ball (5) that runs inside a transparent guide (6) marked by a graduated scale in l/min.



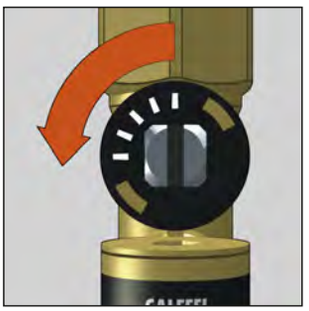


4. After completing the balancing, release the ring (2) of the flow meter obturator that, thanks to an internal spring, will automatically go back into the closed position.

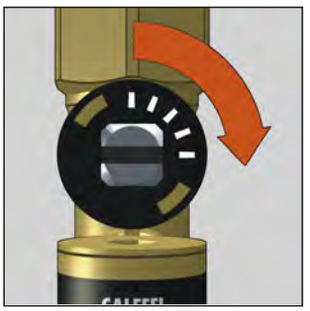
5. After completing the balancing, the indicator (1) can be used to keep in memory the selected setting in case of future inspections.

Complete opening and closing of the valve

Complete opening of the valve



Complete closing of the valve



BALANCING VALVES

130

tech. broch. 01251

Balancing valve for hydraulic systems.
Flow rate measurement with Venturi device.
CR dezincification resistant alloy body, stainless steel obturator.
Complete with pressure ports.
Max. working pressure: 16 bar.
Temperature range: -20–120°C.
Max. percentage of glycol: 50%.

Code			
130400	1/2″	1	5
130500	3/4″	1	5
130600	1″	1	5
130700	1 1/4″	1	5
130800	1 1/2″	1	5
130900	2″	1	5

130

tech. broch. 01251

Balancing valve
for hydraulic systems.
Grey cast iron body,
PPS polymer obturator.
Complete with pressure ports.
Max. working pressure: 16 bar.
Temperature range:
DN 65–DN 150: -10–140°C
DN 200–DN 300: -10–120°C.
Max. percentage of glycol: 50%.
Flaged connections PN 16.
To be coupled with flat counterflanges EN 1092-2.

Code			
130062	DN 65	1	–
130082	DN 80	1	–
130102	DN 100	1	–
130122	DN 125	1	–
130152	DN 150	1	–
130200	DN 200	1	–
130250	DN 250	1	–
130300	DN 300	1	–

Pre-formed insulation for balancing valves with threaded connections 130 series.
For heating and air conditioning system.

Code			
CBN130400	1/2″	1	–
CBN130500	3/4″	1	–
CBN130600	1″	1	–
CBN130700	1 1/4″	1	–
CBN130800	1 1/2″	1	–
CBN130900	2″	1	–

617

Slip-on flat counterflanges for welding, EN 1092-1, PN 16.
Complete with bolts and gaskets.

Code				
617060	DN 65	4 holes	1	–
617080	DN 80		1	–
617100	DN 100		1	–
617120	DN 125		1	–
617150	DN 150		1	–
617200	DN 200		1	–
617250	DN 250		1	–
617300	DN 300		1	–

DIFFERENTIAL PRESSURE CONTROL VALVE (DPCV)

140

tech. broch. 01250

Differential pressure control valve (DPCV).
CR dezincification resistant alloy body.
Complete with capillary pipe for connection to the valve on the flow pipe.
With insulation.
Max. working pressure: 16 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.
Length of capillary pipe Ø 3 mm: 1,5 m.

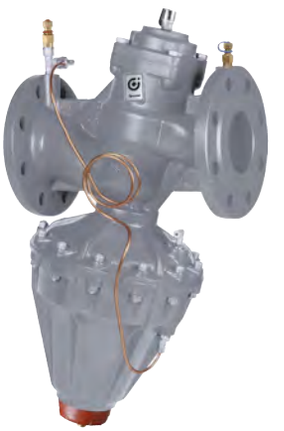
Code		Differential pressure adjustable set (mbar)			
140340	1/2″	50–300		1	5
140440	1/2″	250–600		1	5
140350	3/4″	50–300		1	5
140450	3/4″	250–600		1	5
140360	1″	50–300		1	5
140460	1″	250–600		1	5
140342	1/2″	50–300	without insulation	1	5
140442	1/2″	250–600	without insulation	1	5
140352	3/4″	50–300	without insulation	1	5
140452	3/4″	250–600	without insulation	1	5
140362	1″	50–300	without insulation	1	5
140462	1″	250–600	without insulation	1	5

140

tech. broch. 01250

Differential pressure control valve (DPCV).
CR dezincification resistant alloy body.
Complete with capillary pipe for connection to the valve on the flow pipe.
With insulation.
Max. working pressure: 10 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.
Length of capillary pipe Ø 3 mm: 1,5 m.

Code		Differential pressure adjustable set (mbar)			
140370	1 1/4″	50–300		1	–
140470	1 1/4″	250–600		1	–
140380	1 1/2″	50–300		1	–
140480	1 1/2″	250–600		1	–
140372	1 1/4″	50–300	without insulation	1	–
140472	1 1/4″	250–600	without insulation	1	–
140382	1 1/2″	50–300	without insulation	1	–
140482	1 1/2″	250–600	without insulation	1	–
140392	2″	50–300	without insulation	1	–
140492	2″	250–600	without insulation	1	–



140

tech. broch. 01250

Differential pressure control valve (DPCV).
Cast iron body.
Complete with pressure ports.
Max. working pressure: 16 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.
Attacchi flangiati PN 16.
Accoppiamento con controflangia EN 1092-2.

Code		Differential pressure adjustable set (mbar)		
140506	DN 65	200–800	1	–
140606	DN 65	800–1600	1	–
140508	DN 80	200–800	1	–
140608	DN 80	800–1600	1	–
140510	DN 100	200–800	1	–
140610	DN 100	800–1600	1	–
140512	DN 125	200–800	1	–
140515	DN 150	200–800	1	–

142

tech. broch. 01250

Shut-off and pre-regulation valve.
CR dezincification resistant alloy body.
Complete with pressure test ports for connection of capillary pipe.
With insulation.
Max. working pressure: 16 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.

Code				
142140	1/2″		1	5
142150	3/4″		1	5
142160	1″		1	5
142240	1/2″	without insulation	1	5
142250	3/4″	without insulation	1	5
142260	1″	without insulation	1	5

142

tech. broch. 01250

Shut-off and pre-regulation valve.
CR dezincification resistant alloy body.
Complete with pressure test ports for connection of capillary pipe.
With insulation.
Max. working pressure: 16 bar.
Temperature range: -10–120°C.
Max. percentage of glycol: 50%.

Code				
142170	1 1/4″		1	–
142180	1 1/2″		1	–
142270	1 1/4″	without insulation	1	–
142280	1 1/2″	without insulation	1	–
142290	2″	without insulation	1	–

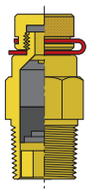
519

tech. broch. 01007

Differential by-pass valve,
adjustable with graduated scale.
Max. working pressure: 10 bar.
Temperature range: 0–110°C.
Max. percentage of glycol: 30%.

WRAS APPROVED PRODUCT CERTIFICATION MARK

Code		Setting range m w.g.		
519500	3/4"	1–6	1	50
519504	3/4"	10–40	1	50
519700	1 1/4"	1–6	1	10



100

tech. broch. 01041

Pair of fast-plug pressure/temperature test ports.
Their special construction allows rapid and accurate measurements while ensuring leaktightness.
Can be used for:
- checking the working range of AUTOFLOW®;
- checking the clog degree of strainers;
- checking the heat output of the terminals.

Cap cover facing available in:
● - **Red** for upstream pressure test port.
● - **Green** for downstream pressure test port.

Brass body.
EPDM seals.
Max. working pressure: 30 bar.
Temperature range: -5–130°C.

Code			
100000	1/4"	1	100

130

tech. broch. 01251

Electronic flow rate and differential pressure measuring station.
Supplied complete with shut-off and connection fittings.
Can be used for measuring the flow rate of balancing valves 130 series and of the flow metering device 683 series.
Suitable for Δp measurement of automatic flow rate regulators.
Electric supply from battery.
Bluetooth® transmission between Δp measuring station and remote control unit.
Versions complete with remote control unit with Android® application for Smartphone and Tablet.
Measurement range: 0–1000 kPa.
Static Pmax: 1000 kPa.

Smart Balancing Caleffi
Available app for smartphone.
Download for your Android® mobile phone.

Code			
130006	complete with remote control unit, with Android® application	1	–
130005	without remote control unit, with Android® application	1	–

100

tech. broch. 01041

Pair of fittings with fast-plug syringe for connection of pressure ports to measuring instruments.
1/4" female threaded connection.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code			
100010	1/4"	1	–

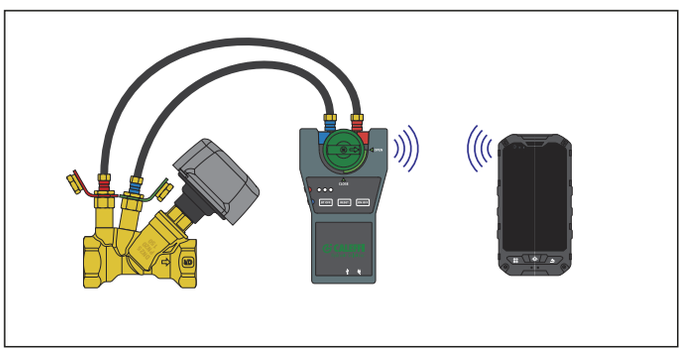
538

tech. broch. 01041

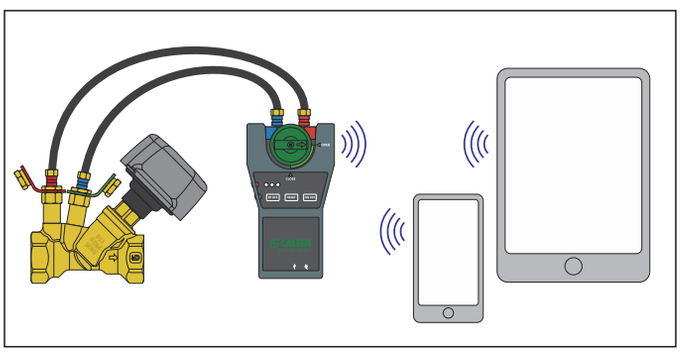
Drain cock with hose connection and cap.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code			
538201	1/4" M	1	–
538400	1/2" M	1	100

Transmission via Bluetooth® to the terminal with Android® application



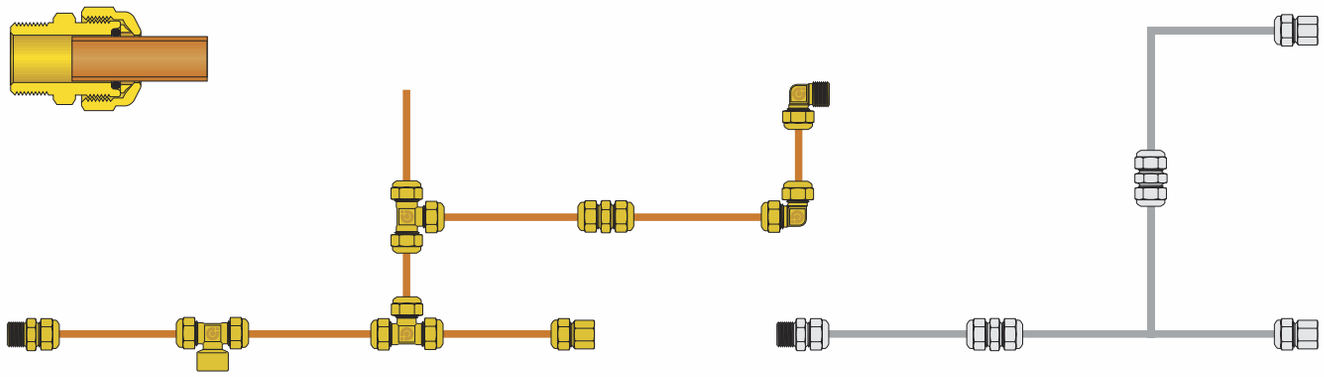
Transmission via Bluetooth® to Smartphone/Tablet with Android® application



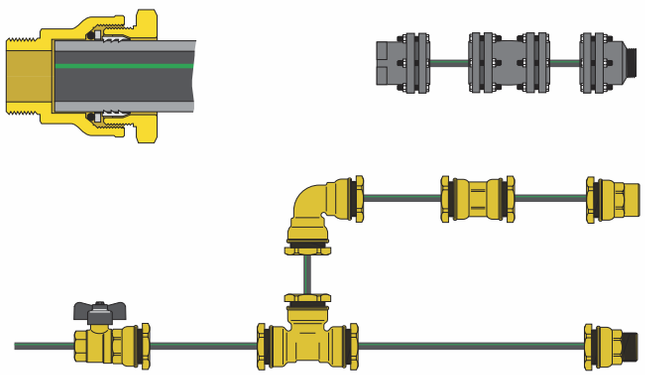
FITTINGS

This diagram is just an indication

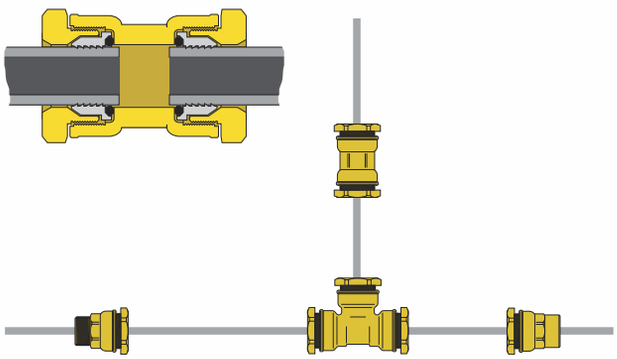
MECHANICAL FITTINGS WITH O-RING SEAL



DECA-FITTINGS FOR POLYETHYLENE PIPES



DECA-FITTINGS FOR STEEL PIPES



Three-piece union fittings
Fittings for polyethylene pipes (PE-X)
Mechanical fittings with O-Ring seal
DECA-fittings for polyethylene pipes
Dezincification resistant alloy fittings for polyethylene pipes
DECA-fittings for steel pipes

THREE-PIECE UNION FITTINGS

for gas and hydrocarbons - EN 549 standard

for hydraulic and domestic water systems - EN 681.1 standard

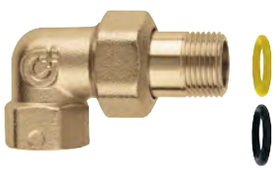
Fittings highlighted in yellow are supplied with two O-Rings:
yellow to be used for gas and fluid hydrocarbons - black to be used for hydraulic systems.

To be used for gas systems with power output up to 35 kW, according to UNI 7129-2008 standard only.

588

Three-piece straight union fitting.
PN 16.

Code				
588030	3/8″ F	x M with union	1	50
588040	1/2″ F	x M with union	1	50
588050	3/4″ F	x M with union	1	25
588060	1″ F	x M with union	1	20
588070	1 1/4″ F	x M with union	1	10
588080	1 1/2″ F	x M with union	1	–
588090	2″ F	x M with union	1	–



5881

Three-piece elbow union fitting.
PN 16.

Code				
588130	3/8″ F	x M with union	1	50
588140	1/2″ F	x M with union	1	25
588150	3/4″ F	x M with union	1	25
588160	1″ F	x M with union	1	15
588170	1 1/4″ F	x M with union	1	10

588

Three-piece straight union fitting.
Chrome plated.
PN 16.

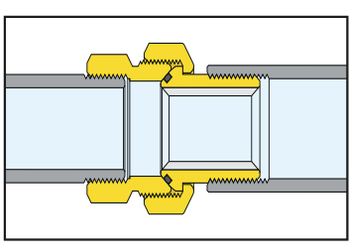
Code				
588031	3/8″ F	x M with union	1	50
588041	1/2″ F	x M with union	1	50
588051	3/4″ F	x M with union	1	25
588061	1″ F	x M with union	1	20
588071	1 1/4″ F	x M with union	1	10
588081	1 1/2″ F	x M with union	1	–
588091	2″ F	x M with union	1	–

5881

Three-piece elbow union fitting.
Chrome plated.
PN 16.

Code				
588131	3/8″ F	x M with union	1	50
588141	1/2″ F	x M with union	1	25
588151	3/4″ F	x M with union	1	25
588161	1″ F	x M with union	1	15
588171	1 1/4″ F	x M with union	1	10

O-Ring seal
The hydraulic tightness between the two fitting components is a tapered type with O-Ring.
This allows to screw the fitting up smoothly with a full safety warranty.



UNIONS

Flat seat union
with gasket.

Code		
R59787	3/4″ F	x 1/2″ M
R59788	1″ F	x 3/4″ M
R59789	1 1/4″ F	x 1″ M
R59485	1 1/2″ F	x 1 1/4″ M
R59581	2″ F	x 1 1/2″ M
R59487	2 1/2″ F	x 2″ M

FITTINGS FOR POLYETHYLENE PIPES (PE-X)

933

Elbow fitting
with plastic wall mounting case.

Code			
933000	1/2" F x 23 p.1,5	5	–

933

Elbow fitting
with plastic wall mounting case
with 10 mm collar.

Code			
933001	1/2" F x 23 p.1,5	5	–
933501	3/4" F x 3/4"	1	10

R96006

Plastic case plug
for elbow fitting 933 series.

Code			
R96006		5	100

930

Male elbow fitting with wall connection.
Fitted for coupling with fittings 347, 438 and 680 series for water use.

Code			
930418	1/2" F x 23 p.1,5 M	5	–

936

Extension for connection between elbow fitting 933 series and radiator valve.
Annealed copper, chrome plated.
With shaped rubber seal.
Lenght: 200 mm
(useful 188 mm).

Code			
936400	1/2" x Ø 16	1	50

FITTINGS FOR POLYETHYLENE PIPES (PE-X)
Fitted for coupling with 680 and 679 series

940
Male fitting.

Code					
940300	3/8″ M x 23 p.1,5		50	–
940400	1/2″ M x 23 p.1,5		50	–
940450	1/2″ M x 3/4″		50	–
940500	3/4″ M x 23 p.1,5		50	–
940550	3/4″ M x 3/4″	(use **942**550)	50	–
940560	3/4″ M x 1″	(use **942**560)	50	–
940650	1″ M x 3/4″	(use **942**560)	50	–

941
Female fitting.

Code				
941300	3/8″ F x 23 p.1,5	50	–
941400	1/2″ F x 23 p.1,5	50	–
941450	1/2″ F x 3/4″	50	–
941500	3/4″ F x 23 p.1,5	50	–
941550	3/4″ F x 3/4″	50	–
941560	3/4″ F x 1″	50	–

942
Sleeve.

Code				
942000	23 p.1,5 x 23 p.1,5	50	–
942550	3/4″ x 3/4″	50	–
942560	3/4″ x 1″	50	–

943
Elbow fitting.

Code				
943000	23 p.1,5 x 23 p.1,5	50	–
943550	3/4″ x 3/4″	50	–

944
Male elbow fitting.

Code				
944400	1/2″ M x 23 p.1,5		50	–
944550	3/4″ M x 3/4″	(use **943**550)	50	–

945
Female elbow fitting.

Code				
945400	1/2″ F x 23 p.1,5		50	–
945550	3/4″ F x 3/4″		50	–

946
Tee piece.

Code				
946000	23 p.1,5 x 23 p.1,5 x 23 p.1,5		50	–
946500	3/4″ x 3/4″ x 3/4″		25	–

947
Side male tee piece.

Code				
947400	1/2″ M x 23 p.1,5 x 23 p.1,5		50	–
947500	3/4″ M x 3/4″ x 3/4″	(use **946**500)	50	–

948
Central male tee piece.

Code				
948400	23 p.1,5 x 1/2″ M x 23 p.1,5		50	–
948500	3/4″ x 3/4″ M x 3/4″	(use **946**500)	50	–

MECHANICAL FITTINGS WITH O-RING SEAL

according to EN 1254-2 and EN 1254-4 standards

***for gas and fluid hydrocarbons** - EN 549 standard*

***for hydraulic and domestic water systems** - EN 681.1 standard*

Fittings highlighted in yellow are supplied with two O-Rings:
yellow to be used for gas and fluid hydrocarbons - black to be used for hydraulic systems

900

Female fitting. For annealed copper, hard copper, brass, mild steel and stainless steel. Double O-Ring.
According to EN 1254-4 standard.
For gas and fluid hydrocarbons:
yellow O-Ring according to EN 549 standard.
Temperature range: -20–100°C.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
900308	3/8" F - Ø 8	50	–
900310	3/8" F - Ø 10	50	–
900312	3/8" F - Ø 12	50	–
900314	3/8" F - Ø 14	50	–
900410	1/2" F - Ø 10	50	–
900412	1/2" F - Ø 12	50	–
900414	1/2" F - Ø 14	50	–
900415	1/2" F - Ø 15	50	–
900416	1/2" F - Ø 16	50	–
900418	1/2" F - Ø 18	25	–
900516	3/4" F - Ø 16	50	–
900518	3/4" F - Ø 18	25	–
900522	3/4" F - Ø 22	25	–
900622	1" F - Ø 22	25	–
900628*	1" F - Ø 28	25	–

** To be used only with water and non-dangerous glycol solutions*

904

Male fitting. For annealed copper, hard copper, brass, mild steel and stainless steel. Double O-Ring.
According to EN 1254-4 standard.
For gas and fluid hydrocarbons:
yellow O-Ring according to EN 549 standard.
Temperature range: -20–100°C.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
904308	3/8" M - Ø 8	50	–
904310	3/8" M - Ø 10	50	–
904312	3/8" M - Ø 12	50	–
904314	3/8" M - Ø 14	50	–
904410	1/2" M - Ø 10	50	–
904412	1/2" M - Ø 12	50	–
904414	1/2" M - Ø 14	50	–
904415	1/2" M - Ø 15	50	–
904416	1/2" M - Ø 16	50	–
904418	1/2" M - Ø 18	25	–
904514	3/4" M - Ø 14	50	–
904516	3/4" M - Ø 16	50	–
904518	3/4" M - Ø 18	25	–
904522	3/4" M - Ø 22	25	–
904618	1" M - Ø 18	25	–
904622	1" M - Ø 22	25	–
904628 *	1" M - Ø 28	10	–

** To be used only with water and non-dangerous glycol solutions*

903

Coupling sleeve. For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-2 standard.
For hydraulic and domestic water systems: black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
903008	Ø 8	50	–
903010	Ø 10	50	–
903012	Ø 12	50	–
903014	Ø 14	50	–
903015	Ø 15	50	–
903016	Ø 16	50	–
903018	Ø 18	25	–
903022	Ø 22	25	–

9050

Elbow fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-2 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
905010	Ø 10	25	–
905012	Ø 12	25	–
905014	Ø 14	25	–
905015	Ø 15	25	–
905016	Ø 16	25	–
905018	Ø 18	25	–
905022	Ø 22	25	–

MECHANICAL FITTINGS WITH O-RING SEAL

9057

Male elbow fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
Double O-Ring.
According to EN 1254-4 standard.
For gas and fluid hydrocarbons:
yellow O-Ring according to EN 549 standard.
Temperature range: -20–100°C.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
905730	3/8" M - Ø 10	25	–
905732	3/8" M - Ø 12	25	–
905740	1/2" M - Ø 10	25	–
905742	1/2" M - Ø 12	25	–
905744	1/2" M - Ø 14	25	–
905745	1/2" M - Ø 15	25	–
905746	1/2" M - Ø 16	25	–
905748	1/2" M - Ø 18	25	–
905756	3/4" M - Ø 16	25	–
905758	3/4" M - Ø 18	25	–
905752	3/4" M - Ø 22	25	–

9060

Tee fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-2 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
906010	Ø 10	25	–
906012	Ø 12	25	–
906014	Ø 14	25	–
906015	Ø 15	25	–
906016	Ø 16	25	–
906018	Ø 18	25	–
906022	Ø 22	20	–

9058

Female elbow fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
Double O-Ring.
According to EN 1254-4 standard.
For gas and fluid hydrocarbons:
yellow O-Ring according to EN 549 standard.
Temperature range: -20–100°C.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
905830	3/8" F - Ø 10	25	–
905832	3/8" F - Ø 12	25	–
905840	1/2" F - Ø 10	25	–
905842	1/2" F - Ø 12	25	–
905844	1/2" F - Ø 14	25	–
905845	1/2" F - Ø 15	25	–
905846	1/2" F - Ø 16	25	–
905848	1/2" F - Ø 18	25	–
905856	3/4" F - Ø 16	25	–
905858	3/4" F - Ø 18	25	–
905852	3/4" F - Ø 22	25	–

9067

Male tee fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-4 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
906740	1/2" M - Ø 10	25	–
906742	1/2" M - Ø 12	25	–
906744	1/2" M - Ø 14	25	–
906745	1/2" M - Ø 15	25	–
906746	1/2" M - Ø 16	25	–
906758	3/4" M - Ø 18	25	–
906752	3/4" M - Ø 22	20	–

MECHANICAL FITTINGS WITH O-RING SEAL

9068

Female tee fitting. For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-4 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
906830	3/8" F - Ø 10	25	–
906832	3/8" F - Ø 12	25	–
906840	1/2" F - Ø 10	25	–
906842	1/2" F - Ø 12	25	–
906844	1/2" F - Ø 14	25	–
906845	1/2" F - Ø 15	25	–
906846	1/2" F - Ø 16	25	–
906858	3/4" F - Ø 18	25	–
906852	3/4" F - Ø 22	20	–

930

Elbow fitting with wall connection.
For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-4 standard.
With double O-Ring.
For gas and fluid hydrocarbons:
yellow O-Ring according to EN 549 standard.
Temperature range: -20–100°C.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
930412	1/2" F - Ø 12	25	–
930414	1/2" F - Ø 14	25	–
930416	1/2" F - Ø 16	25	–

910

Female fitting. Chrome plated.
For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-4 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
910310	3/8" F - Ø 10	50	–
910312	3/8" F - Ø 12	50	–
910314	3/8" F - Ø 14	50	–
910410	1/2" F - Ø 10	50	–
910412	1/2" F - Ø 12	50	–
910414	1/2" F - Ø 14	50	–
910415	1/2" F - Ø 15	50	–

914

Male fitting. Chrome plated.
For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-4 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
914310	3/8" M - Ø 10	50	–
914312	3/8" M - Ø 12	50	–
914314	3/8" M - Ø 14	50	–
914410	1/2" M - Ø 10	50	–
914412	1/2" M - Ø 12	50	–
914414	1/2" M - Ø 14	50	–
914415	1/2" M - Ø 15	50	–

913

Coupling sleeve. Chrome plated.
For annealed copper, hard copper, brass, mild steel and stainless steel.
According to EN 1254-2 standard.
For hydraulic and domestic water systems:
black O-Ring according to EN 681.1 standard.
Max. working pressure: 16 bar.
Temperature range: -25–120°C.

Code			
913010	Ø 10	50	–
913012	Ø 12	50	–
913014	Ø 14	50	–

Mechanical fittings with O-Ring seal are not suitable for use with fuel added with RME (Rape Methyl Ester).

DECA-FITTINGS FOR POLYETHYLENE PIPES

860

tech. broch. 01037

Female fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
860420	Ø 20 x 1/2" F	12	60
860421	Ø 21 x 1/2" F	12	60
860525	Ø 25 x 3/4" F	10	50
860527	Ø 27 x 3/4" F	10	50
860625	Ø 25 x 1" F	10	60
860632	Ø 32 x 1" F	10	50
860634	Ø 34 x 1" F	10	50
860740	Ø 40 x 1 1/4" F	10	50
860850	Ø 50 x 1 1/2" F	5	25
860963	Ø 63 x 2" F	8	–

861

tech. broch. 01037

Male fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
861420	Ø 20 x 1/2" M	12	60
861421	Ø 21 x 1/2" M	12	60
861525	Ø 25 x 3/4" M	10	50
861527	Ø 27 x 3/4" M	10	50
861625	Ø 25 x 1" M	10	60
861632	Ø 32 x 1" M	10	50
861634	Ø 34 x 1" M	10	50
861740	Ø 40 x 1 1/4" M	10	50
861850	Ø 50 x 1 1/2" M	5	25
861963	Ø 63 x 2" M	8	–

860

tech. broch. 01037

Female fitting.
In cast iron.
Stainless steel rods.
For polyethylene pipes.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.

Code			
860075	Ø 75 x 2 1/2" F	1	–
860090	Ø 90 x 3" F	1	–
860110	Ø 110 x 4" F	1	–

861

tech. broch. 01037

Male fitting.
In cast iron.
Stainless steel rods.
For polyethylene pipes.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.

Code			
861075	Ø 75 x 2 1/2" M	1	–
861090	Ø 90 x 3" M	1	–
861110	Ø 110 x 4" M	1	–

875

tech. broch. 01037

Reduced female fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
875425	Ø 25 x 1/2" F	10	50
875532	Ø 32 x 3/4" F	10	50
875640	Ø 40 x 1" F	10	50

876

tech. broch. 01037

Female fitting with union.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
876520	Ø 20 x 3/4"	15	75
876525	Ø 25 x 3/4"	12	60
876625	Ø 25 x 1"	12	60
876632	Ø 32 x 1"	10	50

DECA-FITTINGS FOR POLYETHYLENE PIPES

862

tech. broch. 01037

Reduced male fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
862320	Ø 20 x 3/8" M	12	60
862425	Ø 25 x 1/2" M	10	50
862532	Ø 32 x 3/4" M	10	50
862640	Ø 40 x 1" M	10	50
862750	Ø 50 x 1 1/4" M	5	25
862863	Ø 63 x 1 1/2" M	8	–

888

tech. broch. 01037

Flanged fitting,
PN 10 UNI 2277 series.
In cast iron.
Stainless steel rods.
For polyethylene pipes.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.

Code			
888075	Ø 75 x DN 65	1	–
888090	Ø 90 x DN 80	1	–
888110	Ø 110 x DN 100	1	–
888125	Ø 125 x DN 100	1	–

863

tech. broch. 01037

Sleeve fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
863020	Ø 20	15	75
863021	Ø 21	15	75
863025	Ø 25	12	60
863027	Ø 27	10	50
863032	Ø 32	10	50
863034	Ø 34	5	25
863040	Ø 40	5	25
863050	Ø 50	5	25
863063	Ø 63	6	–

863

tech. broch. 01037

Sleeve fitting.
In cast iron.
Stainless steel rods.
For polyethylene pipes.
Max. working pressure: 10 bar.
Max. working temperature: 40°C.

Code			
863075	Ø 75	1	–
863090	Ø 90	1	–
863110	Ø 110	1	–
863125	Ø 125	1	–

864

tech. broch. 01037

Tee fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
864020	Ø 20	10	50
864021	Ø 21	10	50
864025	Ø 25	10	50
864027	Ø 27	5	25
864032	Ø 32	5	25
864034	Ø 34	4	20
864040	Ø 40	5	–
864050	Ø 50	5	–
864063	Ø 63	5	–

865

tech. broch. 01037

Reduced male-female tee fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
865420	Ø 20 x 1/2" M x 3/8" F	10	50
865525	Ø 25 x 3/4" M x 1/2" F	10	50
865632	Ø 32 x 1" M x 3/4" F	5	25
865740	Ø 40 x 1 1/4" M x 1" F	5	–
865850	Ø 50 x 1 1/2" M x 1 1/4" F	5	–
865963	Ø 63 x 2" M x 1 1/2" F	5	–

DECA-FITTINGS FOR POLYETHYLENE PIPES

866

tech. broch. 01037

Elbow fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
866020	Ø 20	10	50
866025	Ø 25	10	50
866032	Ø 32	5	25
866040	Ø 40	4	20
866050	Ø 50	3	15
866063	Ø 63	5	–

867

tech. broch. 01037

Male elbow fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
867420	Ø 20 x 1/2″ M	10	50
867525	Ø 25 x 3/4″ M	10	50
867632	Ø 32 x 1″ M	10	50
867740	Ø 40 x 1 1/4″ M	4	20
867850	Ø 50 x 1 1/2″ M	4	20
867963	Ø 63 x 2″ M	5	–

868

tech. broch. 01037

Female elbow fitting.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

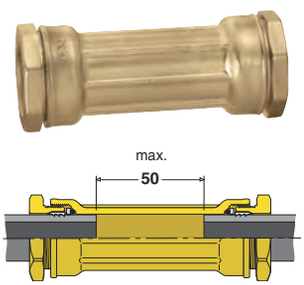
Code			
868420	Ø 20 x 1/2″ F	10	50
868525	Ø 25 x 3/4″ F	10	50
868632	Ø 32 x 1″ F	10	50
868740	Ø 40 x 1 1/4″ F	4	20
868850	Ø 50 x 1 1/2″ F	4	20
868963	Ø 63 x 2″ F	5	–

869

tech. broch. 01037

Female elbow fitting
with wall connections.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
869420	Ø 20 x 1/2″ F	5	25
869425	Ø 25 x 1/2″ F	4	20
869525	Ø 25 x 3/4″ F	4	20



870

tech. broch. 01037

Long sleeve fitting.
Can be used for pipe repairs.
In brass.
For polyethylene pipes.

Allows pipe repairs
with a maximum distance of 50 mm
between pipe ends.

Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
870025	Ø 25	10	50
870032	Ø 32	5	25
870040	Ø 40	4	20
870050	Ø 50	3	15

871

tech. broch. 01037

Fitting with ball valve.
In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
871425	Ø 25 x 1/2″ F	10	50
871525	Ø 25 x 3/4″ F	5	25
871532	Ø 32 x 3/4″ F	5	25

DEZINCIFICATION RESISTANT ALLOY FITTINGS FOR POLYETHYLENE PIPES

960

Female fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
960420 SAV	Ø 20 x 1/2" F	12	60
960525 SAV	Ø 25 x 3/4" F	10	50
960625 SAV	Ø 25 x 1" F	10	60
960632 SAV	Ø 32 x 1" F	10	50
960740 SAV	Ø 40 x 1 1/4" F	6	30
960850 SAV	Ø 50 x 1 1/2" F	5	20
960963 SAV	Ø 63 x 2" F	8	–

975

Reduced female fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
975532 SAV	Ø 32 x 3/4" F	10	50
975640 SAV	Ø 40 x 1" F	6	30
975732 SAV	Ø 32 x 1 1/4" F	6	30
975750 SAV	Ø 50 x 1 1/4" F	5	20

961

Male fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
961420 SAV	Ø 20 x 1/2" M	12	60
961520 SAV	Ø 20 x 3/4" M	12	60
961525 SAV	Ø 25 x 3/4" M	10	50
961625 SAV	Ø 25 x 1" M	10	60
961632 SAV	Ø 32 x 1" M	10	50
961732 SAV	Ø 32 x 1 1/4" M	10	50
961740 SAV	Ø 40 x 1 1/4" M	6	30
961840 SAV	Ø 40 x 1 1/2" M	6	30
961850 SAV	Ø 50 x 1 1/2" M	5	20
961950 SAV	Ø 50 x 2" M	5	20
961963 SAV	Ø 63 x 2" M	8	–

962

Reduced male fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
962532 SAV	Ø 32 x 3/4" M	10	50
962640 SAV	Ø 40 x 1" M	6	30

963

Sleeve fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
963020 SAV	Ø 20	15	75
963025 SAV	Ø 25	12	60
963032 SAV	Ø 32	10	50
963040 SAV	Ø 40	5	20
963050 SAV	Ø 50	6	–
963063 SAV	Ø 63	5	–

964

Tee fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
964020 SAV	Ø 20	10	50
963025 SAV	Ø 25	10	50
963032 SAV	Ø 32	5	25
963040 SAV	Ø 40	5	–
963050 SAV	Ø 50	5	–

DEZINCIFICATION RESISTANT ALLOY FITTINGS FOR POLYETHYLENE PIPES

966

Elbow fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
966025 SAV	Ø 25	10	50
966032 SAV	Ø 32	5	25
966040 SAV	Ø 40	3	15

967

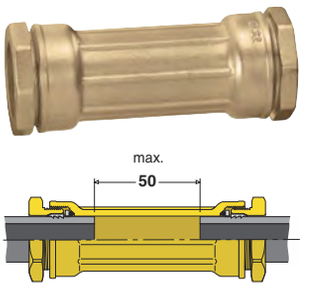
Male elbow fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
967632 SAV	Ø 32 x 1" M	10	50

968

Female elbow fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
968632 SAV	Ø 32 x 1" F	10	50
968740 SAV	Ø 40 x 1 1/4" F	4	20



970

Long sleeve fitting.
In CR dezincification resistant alloy.
For polyethylene pipes.

Allows pipe repairs
with a maximum distance of 50 mm
between pipe ends.

Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
970032 SAV	Ø 32	5	25
970040 SAV	Ø 40	5	–
970050 SAV	Ø 50	4	–

986

Reduction kit.

Code			
986032 SAV	from Ø 32 to Ø 25	12	60
986043 SAV	from Ø 40 to Ø 32	10	50
986053 SAV	from Ø 50 to Ø 32	6	30
986054 SAV	from Ø 50 to Ø 40	6	30

980

Kit.

Code			
980025 SAV	Ø 25	100	–
980032 SAV	Ø 32	100	–
980040 SAV	Ø 40	50	–
980050 SAV	Ø 50	50	–
980063 SAV	Ø 63	50	–

DECA-FITTINGS FOR STEEL PIPES

Steel series

For steel pipes with nominal outer diameters for gas threading. Stainless steel pipe clenching ring.

890

Female fitting. In brass.
For steel pipe.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
890421	Ø 21 x 1/2" F	12	60
890527	Ø 27 x 3/4" F	10	50
890634	Ø 34 x 1" F	10	50

891

Male fitting. In brass.
For steel pipe.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
891421	Ø 21 x 1/2" M	12	60
891527	Ø 27 x 3/4" M	10	50
891634	Ø 34 x 1" M	10	50

893

Sleeve fitting. In brass.
For steel pipe.
Without internal stop to be used as joint repair sleeve.

Can be used for pipe repair with a maximum distance of 15 mm between pipe ends.

Max. working pressure: 16 bar.
Max. working temperature: 40°C.

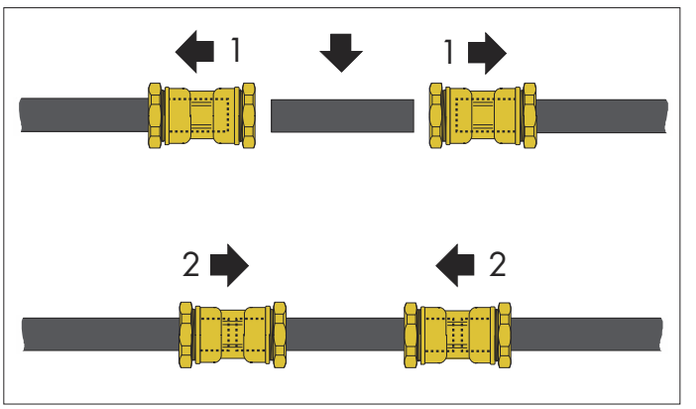
Code			
893021	Ø 21	15	75
893027	Ø 27	10	50
893034	Ø 34	5	25

894

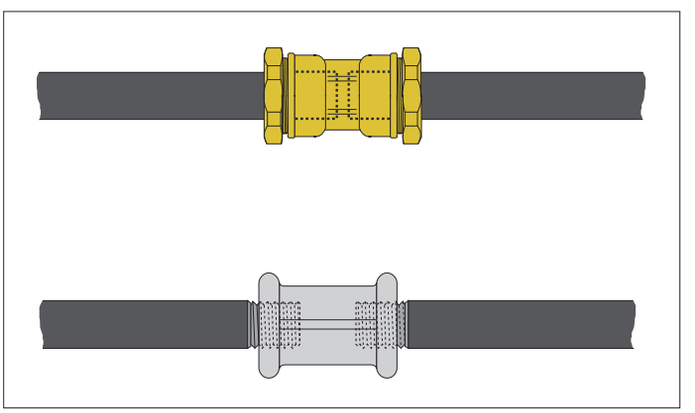
Tee fitting. In brass.
For steel pipe.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
894021	Ø 21	10	50
894027	Ø 27	5	25
894034	Ø 34	4	20

Example of use on steel pipes



Example of repair with the insertion of a supplementary sleeve.



In order to avoid corrosion, which is typical when traditional threaded sleeves are used (see diagram in grey colour), the application of the **Steel** series fittings (see diagram in yellow colour) allows piping to keep the complete galvanisation.
The traditional sleeve in fact does not cover the entire threaded part which is therefore subjected to high corrosion since it features no galvanisation and is weakened on the diameter.

ACCESSORIES AND SPARE PARTS FOR DECA-FITTINGS

886

Reduction kit.

Code			
886022	from Ø 25 to Ø 20	1	–
886032	from Ø 32 to Ø 25	1	–
886043	from Ø 40 to Ø 32	1	–
886054	from Ø 50 to Ø 40	1	–
886065	from Ø 63 to Ø 50	1	–

887

Pipe stiffener.

PN 10 series

Code			
887120	20 x 2	10	–
887223	25 x 2,3	10	–
887330	32 x 3	10	–
887437	40 x 3,7	5	–
887546	50 x 4,6	5	–
887658	63 x 5,8	5	–

For REHAU pipes

Code			
887128	20 x 2,8	10	–
887235	25 x 3,5	10	–

S 5 PN 4 series

Code			
887130	20 x 3	10	–
887230	25 x 3	10	–
887330	32 x 3	10	–
887437	40 x 3,7	5	–
887546	50 x 4,6	5	–
887658	63 x 5,8	5	–

S 8 PN 2,5–4 series

Code			
887430	40 x 3	5	–
887530	50 x 3	5	–
887636	63 x 3,6	5	–

877

Pipe clenching ring.

Code			
877020	Ø 20 brass	1	–
877021	Ø 21 brass	1	–
877121	Ø 21 stainless steel	1	–
877025	Ø 25 brass	1	–
877027	Ø 27 brass	1	–
877127	Ø 27 stainless steel	1	–
877032	Ø 32 brass	1	–
877034	Ø 34 brass	1	–
877134	Ø 34 stainless steel	1	–
877040	Ø 40 brass	1	–
877050	Ø 50 brass	1	–
877063	Ø 63 brass	1	–

878

Brass washer.

Code			
878020	Ø 20	1	–
878021	Ø 21	1	–
878025	Ø 25	1	–
878027	Ø 27	1	–
878032	Ø 32	1	–
878034	Ø 34	1	–
878040	Ø 40	1	–
878050	Ø 50	1	–
878063	Ø 63	1	–

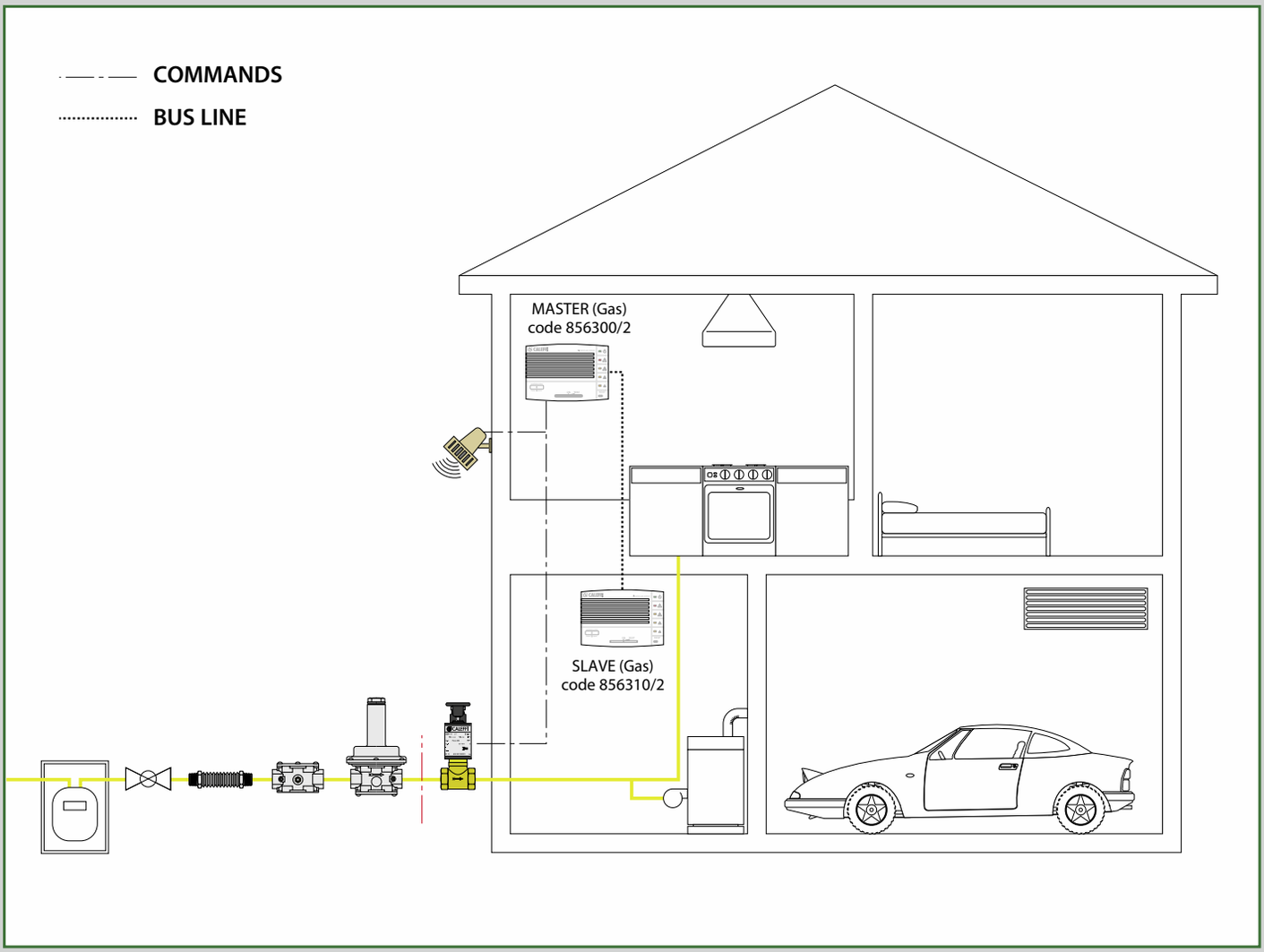
879

O-Ring.

Code			
879020	Ø 20	1	–
879021	Ø 21	1	–
879025	Ø 25	1	–
879027	Ø 27	1	–
879032	Ø 32	1	–
879034	Ø 34	1	–
879040	Ø 40	1	–
879050	Ø 50	1	–
879063	Ø 63	1	–

GAS SAFETY

This diagram is just an indication



Gas filters
Gas pressure filter regulators
Gas pressure regulators
Antivibration extendible joints for gas systems
Pressure gauge for gas
Solenoid valves for gas
Gas detectors

847

Compact gas filter.
Max. pressure: 2 bar.
Filtration: Ø ≥ 50 µm.
Filtration class: G 2 (to EN 779).

Code			
847004	1/2″	1	–
847005	3/4″	1	–

848

Gas filter.
Max. pressure: 2 bar.
Filtration: Ø ≥ 50 µm.
Filtration class: G 2 (to EN 779).

Code			
848004	1/2″	1	–
848005	3/4″	1	–
848006	1″	1	–
848007	1 1/4″	1	–
848008	1 1/2″	1	–
848009	2″	1	–

848

Gas filter.
Body PN 16.
Flanged connection.
To be coupled
with flat counterflanges EN 1092-1.
Max. pressure: 2 bar.
Filtration: Ø ≥ 50 µm.
Filtration class: G 2 (to EN 779).

Code			
848060	DN 65	1	–
848080	DN 80	1	–
848100	DN 100	1	–

850

Gas pressure closing filter regulator, double diaphragm.
Threaded connections.
Max. inlet pressure: 500 mbar.
Temperature range: -15–60°C.
Regulation and closing at null flow according to UNI EN 88.
Filtration: Ø ≥50 µm.
Filtration class: G 2 (to EN 779).
Conformity to Directive ATEX
(II 2G - II 2D).

Code		Adjustment (mbar)		
850004	1/2″	18–40	1	–
850005	3/4″	18–40	1	–
850006	1″	18–40	1	–
850007	1 1/4″	13–23	1	–
850008	1 1/2″	13–23	1	–
850009	2″	13–23	1	–

850

Gas pressure closing filter regulator, double diaphragm.
Body PN 16.
Flanged connection. To be coupled with flat counterflanges EN 1092-1.
Max. inlet pressure: 500 mbar.
Temperature range: -15–60°C.
Regulation and closing at null flow according to UNI EN 88.
Filtration: Ø ≥ 50 µm.
Filtration class: G 2 (to EN 779).
Conformity to Directive ATEX
(II 2G - II 2D).

Code		Adjustment (mbar)		
850060	DN 65	13–27	1	–
850080	DN 80	13–27	1	–
850100	DN 100	15–27	1	–

852

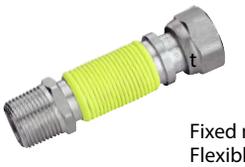
Gas pressure closing regulator, double diaphragm.
Threaded connections.
Max. inlet pressure: 500 mbar.
Temperature range: -15–60°C.
Regulation and closing at null flow according to UNI EN 88.
Conformity to Directive ATEX (II 2G - II 2D).

Code		Adjustment (mbar)		
852004	1/2″	18–40	1	–
852005	3/4″	18–40	1	–
852006	1″	18–40	1	–
852007	1 1/4″	13–23	1	–
852008	1 1/2″	13–23	1	–
852009	2″	13–23	1	–

852

Gas pressure closing regulator, double diaphragm.
Body PN 16.
Flanged connection. To be coupled with flat counterflanges EN 1092-1.
Max. inlet pressure: 500 mbar.
Temperature range: -15–60°C.
Regulation and closing at null flow according to UNI EN 88.
Conformity to Directive ATEX (II 2G - II 2D).

Code		Adjustment (mbar)		
852060	DN 65	13–27	1	–
852080	DN 80	13–27	1	–
852100	DN 100	15–27	1	–



841

Extendible stainless steel joint according to UNI 11353, for gas systems in domestic applications (max. 35 kW).
Max. working pressure PS: 0,5 bar.
Fixed male connection: AISI 303.
Flexible: AISI 316L.
Captive female connection: AISI 303.

Code		Min./max. L		
841414	1/2″	90/130	3	–
841514	3/4″	90/130	3	–
841614	1″	90/130	3	–
841420	1/2″	120/210	3	–
841520	3/4″	120/210	3	–
841620	1″	120/210	3	–
841440	1/2″	240/410	3	–
841540	3/4″	240/410	3	–
841640	1″	240/410	3	–

842

Antivibration joint for gas systems.
According to EN 676 standard.
Max. working pressure PS: 0,5 bar.

Threaded version: body AISI 316L, fixed male connection: FE 37.

Flanged version: body AISI 321, free flanged connections: ASTM A 105 - PN 10.
To be coupled with flat counterflanges EN 1092-1 (PN 10 - PN 16).

Code		L (mm)		
842004	1/2″	145	3	–
842005	3/4″	150	3	–
842006	1″	165	3	–
842007	1 1/4″	180	1	–
842008	1 1/2″	210	1	–
842009	2″	230	1	–
842060	DN 65	175	1	–
842080	DN 80	175	1	–
842100	DN 100	195	1	–

8460

Tap for gas pressure gauge, with opening button.
Female connections.

Code			
846002	1/4″	1	–
846003	3/8″	1	–

8461

Pressure gauge for gas.
Diaphragm precision sensitive element.
Bottom connection.
Accuracy: UNI 1,6.

Code		mbar	Ø		
846101	1/4″	0–60	60	1	–
846102	1/4″	0–100	60	1	–
846103	3/8″	0–60	80	1	–
846104	3/8″	0–100	80	1	–

SOLENOID VALVES FOR GAS - NORMALLY OPEN - MANUAL RESET

8540

Solenoid valve for gas,
normally open,
with manual reset.
Max. pressure: 500 mbar.
Protection class: IP 65.
Conformity to Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
854024	1/2″	230 V (ac)	1	–
854025	3/4″	230 V (ac)	1	–
854044	1/2″	24 V (ac)	1	–
854045	3/4″	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
854012	230 V (ac)	1/2″ - 3/4″	1	–
854014	24 V (ac)	1/2″ - 3/4″	1	–

8540

Solenoid valve for gas,
normally open,
with manual reset.
Max. pressure: 500 mbar.
Protection class: IP 65.
Conformity to Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
854026	1″	230 V (ac)	1	–
854046	1″	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
854002	230 V (ac)	1″	1	–
854004	24 V (ac)	1″	1	–

839

Solenoid valve for gas,
normally open,
with manual reset.
Max. pressure: 500 mbar.
Protection class: IP 65.
Conformity to Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
839005	3/4″	230 V (ac)	1	–
839006	1″	230 V (ac)	1	–
839007	1 1/4″	230 V (ac)	1	–
839008	1 1/2″	230 V (ac)	1	–
839009	2″	230 V (ac)	1	–
839105	3/4″	24 V (ac)	1	–
839106	1″	24 V (ac)	1	–
839107	1 1/4″	24 V (ac)	1	–
839108	1 1/2″	24 V (ac)	1	–
839109	2″	24 V (ac)	1	–
839205	3/4″	12 V (dc)	1	–
839206	1″	12 V (dc)	1	–
839207	1 1/4″	12 V (dc)	1	–
839208	1 1/2″	12 V (dc)	1	–
839209	2″	12 V (dc)	1	–

839

Solenoid valve for gas,
normally open,
with manual reset.
Body PN 16.
Max. pressure: 500 mbar.
Protection class: IP 65.
Conformity to Directive ATEX
(II 3G - II 3D).

Flanged connections PN 16.
To be coupled with flat
counterflanges EN 1092-1.

Code		Electric supply		
839060	DN 65	230 V (ac)	1	–
839080	DN 80	230 V (ac)	1	–
839100	DN 100	230 V (ac)	1	–
839120	DN 125	230 V (ac)	1	–
839150	DN 150	230 V (ac)	1	–
839160	DN 65	24 V (ac)	1	–
839180	DN 80	24 V (ac)	1	–
839190	DN 100	24 V (ac)	1	–
839220	DN 125	24 V (ac)	1	–
839250	DN 150	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
839A05	230 V (ac)	3/4″–DN 150	1	–
839B05	24 V (ac)	3/4″–DN 150	1	–
839C05	12 V (dc)	3/4″–DN 150	1	–

SOLENOID VALVES FOR GAS - NORMALLY CLOSED - MANUAL RESET

8541

Solenoid valve for gas,
normally closed,
with manual reset.
Max. pressure: 500 mbar.
Class A - Group 2.
Protection class: IP 65.
Standards: EN 161 - Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
854124	1/2″	230 V (ac)	1	–
854125	3/4″	230 V (ac)	1	–
854126	1″	230 V (ac)	1	–
854144	1/2″	24 V (ac)	1	–
854145	3/4″	24 V (ac)	1	–
854146	1″	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
854102	230 V (ac)	1/2″–1″	1	–
854104	24 V (ac)	1/2″–1″	1	–

837

Solenoid valve for gas,
normally closed,
with manual reset.
Max. pressure: 500 mbar.
Class A - Group 2.
Protection class: IP 65.
Standards: EN 161 - Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
837005	3/4″	230 V (ac)	1	–
837006	1″	230 V (ac)	1	–
837007	1 1/4″	230 V (ac)	1	–
837008	1 1/2″	230 V (ac)	1	–
837009	2″	230 V (ac)	1	–
837105	3/4″	24 V (ac)	1	–
837106	1″	24 V (ac)	1	–
837107	1 1/4″	24 V (ac)	1	–
837108	1 1/2″	24 V (ac)	1	–
837109	2″	24 V (ac)	1	–
837205	3/4″	12 V (dc)	1	–
837206	1″	12 V (dc)	1	–
837207	1 1/4″	12 V (dc)	1	–
837208	1 1/2″	12 V (dc)	1	–
837209	2″	12 V (dc)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
837A05	230 V (ac)	3/4″–2″	1	–
837B05	24 V (ac)	3/4″–2″	1	–
837C05	12 V (dc)	3/4″–2″	1	–

837

Solenoid valve for gas,
normally closed,
with manual reset.
Body PN 16.
Max. pressure: 500 mbar.
Class A - Group 2.
Protection class: IP 65.
Standards:
EN 161 - Directive ATEX
(II 3G - II 3D).

Flanged connections PN 16.
To be coupled with flat
counterflanges EN 1092-1.

Code		Electric supply		
837060	DN 65	230 V (ac)	1	–
837080	DN 80	230 V (ac)	1	–
837100	DN 100	230 V (ac)	1	–
837120	DN 125	230 V (ac)	1	–
837150	DN 150	230 V (ac)	1	–
837160	DN 65	24 V (ac)	1	–
837180	DN 80	24 V (ac)	1	–
837190	DN 100	24 V (ac)	1	–
837220	DN 125	24 V (ac)	1	–
837250	DN 150	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
837A60	230 V (ac)	DN 65–DN 150	1	–
837B60	24 V (ac)	DN 65–DN 150	1	–

SOLENOID VALVES FOR GAS - NORMALLY CLOSED

838

Solenoid valve for gas,
normally closed.
Max. pressure: 360 mbar.
Class A - Group 2.
Protection class: IP 65.
Standards: EN 161 - Directive ATEX
(II 3G - II 3D).

Code		Electric supply		
838004	1/2″	230 V (ac)	1	–
838005	3/4″	230 V (ac)	1	–
838006	1″	230 V (ac)	1	–
838007*	1 1/4″	230 V (ac)	1	–
838008*	1 1/2″	230 V (ac)	1	–
838009*	2″	230 V (ac)	1	–
838104	1/2″	24 V (ac)	1	–
838105	3/4″	24 V (ac)	1	–
838106	1″	24 V (ac)	1	–
838107*	1 1/4″	24 V (ac)	1	–
838108*	1 1/2″	24 V (ac)	1	–
838109*	2″	24 V (ac)	1	–

** With upper hexagonal fixing nut*

Spare coil,
complete with connector.

Code	Electric supply	Use			
838A04	230 V (ac)	1/2″ - 3/4″	(round version)	1	–
838A14	230 V (ac)	1/2″ - 3/4″	(square version)	1	–
838A06	230 V (ac)	1″	(round version)	1	–
838A07	230 V (ac)	1 1/4″–2″	(round version)	1	–
838A17	230 V (ac)	1 1/4″–2″	(round version)*	1	–
838B04	24 V (ac)	1/2″ - 3/4″	(round version)	1	–
838B14	24 V (ac)	1/2″ - 3/4″	(square version)	1	–
838B06	24 V (ac)	1″	(round version)	1	–
838B07	24 V (ac)	1 1/4″–2″	(round version)	1	–
838B17	24 V (ac)	1 1/4″–2″	(round version)*	1	–

** With upper hexagonal fixing nut*

838

Solenoid valve for gas,
normally closed.
Body PN 16.
Max. pressure: 200 mbar.
Class A - Group 2.
Protection class: IP 65.
Standards:
EN 161 - Directive ATEX
(II 3G - II 3D).

Flanged connections PN 16.
To be coupled with flat
counterflanges EN 1092-1.

Code		Electric supply		
838060	DN 65	230 V (ac)	1	–
838080	DN 80	230 V (ac)	1	–
838100	DN 100	230 V (ac)	1	–
838120	DN 125	230 V (ac)	1	–
838150	DN 150	230 V (ac)	1	–
838160	DN 65	24 V (ac)	1	–
838180	DN 80	24 V (ac)	1	–
838190	DN 100	24 V (ac)	1	–
838220	DN 125	24 V (ac)	1	–
838250	DN 150	24 V (ac)	1	–

Spare coil,
complete with connector.

Code	Electric supply	Use		
838A60	230 V (ac)	DN 65 - DN 80	1	–
838A00	230 V (ac)	DN 100	1	–
838A20	230 V (ac)	DN 125 - DN 150	1	–
838B60	24 V (ac)	DN 65 - DN 80	1	–
838B00	24 V (ac)	DN 100	1	–
838B20	24 V (ac)	DN 125 - DN 150	1	–

ROTATING SIREN - BLINKER

8561

Rotating siren.
230 V (ac) - 112 dB/1 m.

Code		
856102	1	–

8562

Electronic intermittence blinker.
230 V (ac) - Lamp power: 40 W.

Code		
856202	1	–

GAS DETECTORS

8563

Gas detector, with built-in sensor and relay outlet.
With BUS connection, for auxiliary remote sensor.
For solenoid valves 8540, 8541, 837, 838 and 839 series.
Supply: 230 V (ac).
Outlet contact: 8 (2) A.
Protection class: IP 42.

CE

Code				
856300	for methane gas	1	–
856302	for LPG	1	–

8563

Auxiliary remote sensor for gas detector 8563 series.
Supply: 230 V (ac).
Protection class: IP 42.

CE

Code				
856310	for methane gas	1	–
856312	for LPG	1	–

8565

Gas detector, with built-in sensor and relay outlet.
Without BUS connection.
Supply: 230 V (ac).
Outlet contact: 8 (2) A.
Protection class: IP 42.

CE

Code				
856500	for methane gas	1	–
856502	for LPG	1	–

8565

Gas detector, with built-in sensor and relay outlet.
Without BUS connection.
Supply: 230 V (ac).
Protection class: IP 42.

CE

Code				
856501	for CO	1	–

855

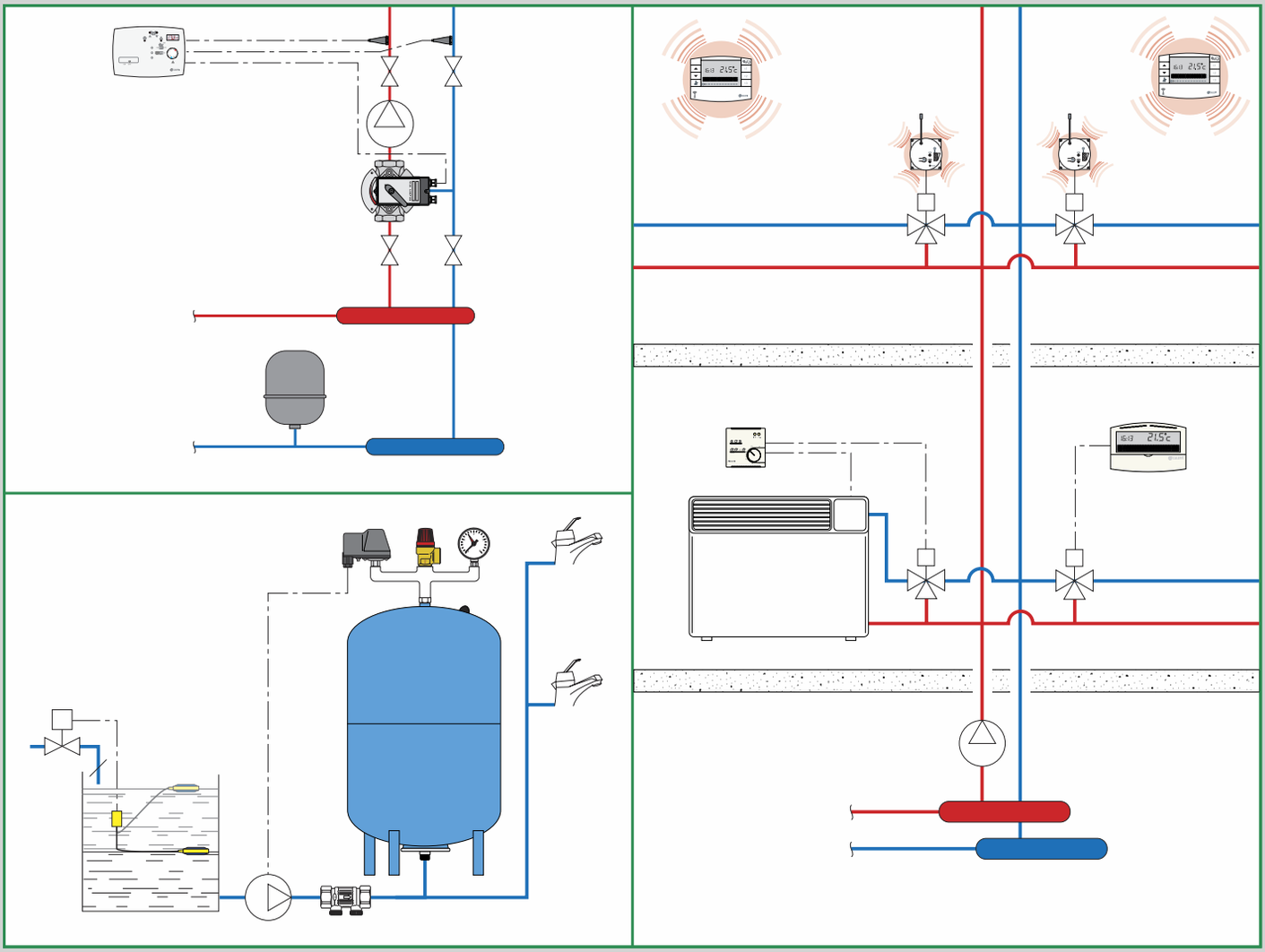
Gas detector, with built-in sensor and relay outlet.
Without BUS connection.
With solenoid valve.
Normally open.
Supply: 230 V (ac).
Protection class: IP 42.

CE

Code					
855400	1/2″	for methane gas	1	–
855500	3/4″	for methane gas	1	–
855410	1/2″	for LPG	1	–
855510	3/4″	for LPG	1	–

EXPANSION VESSELS, MIXING VALVES, CHRONO-THERMOSTATS

This diagram is just an indication



Expansion vessels
Shut-off cocks for expansion vessels
Pressure switch and float switch
Pickling gel and deoxidising powder for welding
Mixing valves
Actuators
Counterflanges
Temperature regulators
Chrono-thermostats
Thermostats - Hour meter - Timer
Radio wave temperature control systems

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EXPANSION VESSELS FOR HEATING SYSTEMS

556

tech. broch. 01079

Welded expansion vessel,
for heating systems, EC certification.
Diaphragm membrane.
Max. working pressure: 6 bar.
System working temperature range: -10–120°C.
Membrane working temperature range: -10–70°C.
Max. percentage of glycol: 50%.
Conformity to EN 13831 standard.

CE 0045

Code	Litres	Conn.	Precharge (bar)		
556008	8	3/4″	1,5	1	–
556012	12	3/4″	1,5	1	–
556018	18	3/4″	1,5	1	–
556025	25	3/4″	1,5	1	–

556

tech. broch. 01079

Welded expansion vessel,
for heating systems, EC certification.
Diaphragm membrane.
Max. working pressure: 6 bar.
System working temperature range: -10–120°C.
Membrane working temperature range: -10–70°C.
Max. percentage of glycol: 50%.
Conformity to EN 13831 standard.

CE 0045

Code	Litres	Conn.	Precharge (bar)		
556035	35	3/4″	1,5	1	–
556050	50	3/4″	1,5	1	–
556080	80	1″	1,5	1	–
556100	100	1″	1,5	1	–
556140	140	1″	1,5	1	–
556200	200	1″	1,5	1	–
556250	250	1″	1,5	1	–

556

tech. broch. 01079

Welded expansion vessel,
for heating systems, EC certification.
Diaphragm membrane.
Max. working pressure: 6 bar.
System working temperature range: -10–120°C.
Membrane working temperature range: -10–70°C.
Max. percentage of glycol: 50%.
Conformity to EN 13831 standard.

CE 0045

Code	Litres	Conn.	Precharge (bar)		
556300	300	1″	1,5	1	–
556400	400	1″	1,5	1	–
556500	500	1″	1,5	1	–
556600	600	1″	1,5	1	–

EXPANSION VESSELS FOR HOT WATER SYSTEMS

5557

tech. broch. 01079

Welded expansion vessel,
for hot water systems, EC certification.
Bladder membrane.
Max. working pressure: 10 bar.
System working temperature range: -10–100°C.
Membrane working temperature range: -10–100°C.
Conformity to EN 13831 standard.

CE 1370

Code	Litres	Conn.	Precharge (bar)		
555702	2	1/2″	2,5	4	–
555705	5	3/4″	2,5	1	–
555708	8	3/4″	2,5	1	–

568

tech. broch. 01079

Welded expansion vessel,
for hot water systems, EC certification.
Bladder membrane.
Max. working pressure: 10 bar.
System working temperature range: -10–70°C.
Membrane working temperature range: -10–70°C.
Conformity to EN 13831 standard.

CE 0045

Code	Litres	Conn.	Precharge (bar)		
568008	8	3/4″	2,5	1	–
568012	12	3/4″	2,5	1	–
568018	18	3/4″	2,5	1	–
568025	25	3/4″	2,5	1	–
568033*	33	3/4″	2,5	1	–

** Complete with brackets for wall mounting*

568

tech. broch. 01079

Welded expansion vessel,
for hot water systems, EC certification.
Bladder membrane
(sostituibile per volumi da 60 a 500 l).
Max. working pressure: 10 bar.
System working temperature range: -10–70°C.
Membrane working temperature range: -10–70°C.
Conformity to EN 13831 standard.

CE 0045

Code	Litres	Conn.	Precharge (bar)		
568050	50	1″	2,5	1	–
568060	60	1″	2,5	1	–
568080	80	1″	2,5	1	–
568100	100	1″	2,5	1	–
568200	200	1 1/4″	2,5	1	–
568300	300	1 1/4″	2,5	1	–
568400	400	1 1/4″	2,5	1	–
568500	500	1 1/4″	2,5	1	–

SHUT-OFF COCKS FOR EXPANSION VESSELS

558

Automatic shut-off cock,
for expansion vessels.
For domestic water circuit.
Max. working pressure: 10 bar.
Max. working temperature: 110°C.

Code			
558500	3/4"	1	50

558

Automatic shut-off cock,
for expansion vessel,
with drain cock.
For domestic water circuit.
Max. working pressure: 6 bar.
Max. working temperature: 85°C.

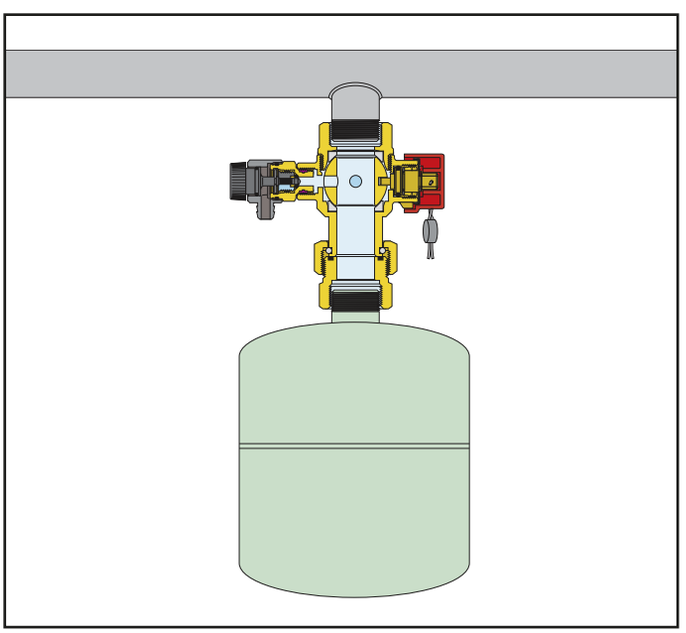
Code			
558510	3/4"	1	50

5580

Ball shut-off valve,
for expansion vessels,
with drain cock.
For domestic water circuit.
Max. working pressure: 6 bar.
Max. working temperature: 85°C.

Code			
558050	3/4"	1	20
558060	1"	1	20
558070	1 1/4"	1	20

Application diagram of shut-off valve 5580 series



PRESSURE SWITCH AND FLOAT SWITCH

625

Pressure switch for boosting sets.
Up to 500 V three-pole - 16 A.
Max. working pressure: 12 bar.
Ambient temperature range: -10–55°C.
Medium temperature range: 0–110°C.
1/4" female connection.
Protection class: IP 44.

Code	Adjustment range		
625005	1– 5 bar	1	10
625010	3–12 bar	1	10

613

Float switch, 250 V - 10 A.
Heavy duty approved.

Code	Cable length		
613030	3 m	1	5
613050	5 m	1	5

PICKLING GEL AND DEOXIDISING POWDER FOR WELDING

6150

ECOGEL.
Non-irritating pickling GEL
to weld copper with tin.
With brush.

Code	Quantity		
615000	110 g	60	–
615010	1 kg	1	–

6151

Pickling GEL
to weld copper with tin.
With brush.
Quantity of GEL 100 g.

Code		
615100	100	–

6152

Deoxidising powder for heavy welding
of copper, bronze, brass, iron and steel.
Quantity of POWDER 100 g.

Code		
615200	40	–

MIXING VALVES

610

tech. broch. 01169

Three-way butterfly mixing valve.
Threaded connections.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
610005	3/4″	7,5	1	–
610006	1″	11,9	1	–
610007	1 1/4″	16,8	1	–
610008	1 1/2″	30	1	–
610009	2″	45	1	–
610020	2 1/2″	72	1	–

610

tech. broch. 01169

Three-way butterfly mixing valve.
Body PN 6.
Flanged connections.
To be coupled with
flat counterflanges EN 1092-1.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
610050	DN 50 (2″)	45	1	–
610060	DN 65 (2 1/2″)	72	1	–
610080	DN 80 (3″)	140	1	–
610100	DN 100 (4″)	183	1	–
610120	DN 125 (5″)	340	1	–

611

tech. broch. 01169

Four-way butterfly mixing valve.
Threaded connections.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
611005	3/4″	7,8	1	–
611006	1″	12,3	1	–
611007	1 1/4″	18,5	1	–
611008	1 1/2″	30	1	–
611009	2″	53	1	–
611020	2 1/2″	80	1	–

611

tech. broch. 01169

Four-way butterfly mixing valve.
Body PN 6.
Flanged connections.
To be coupled with
flat counterflanges EN 1092-1.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
611050	DN 50 (2″)	53	1	–
611060	DN 65 (2 1/2″)	80	1	–
611080	DN 80 (3″)	140	1	–
611100	DN 100 (4″)	230	1	–
611120	DN 125 (5″)	410	1	–

612

tech. broch. 01169

Three-way sector mixing valve.
Threaded connections.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
612005	3/4″	7,2	1	–
612006	1″	11,9	1	–
612007	1 1/4″	16,5	1	–
612008	1 1/2″	30	1	–
612009	2″	42	1	–
612020	2 1/2″	62	1	–

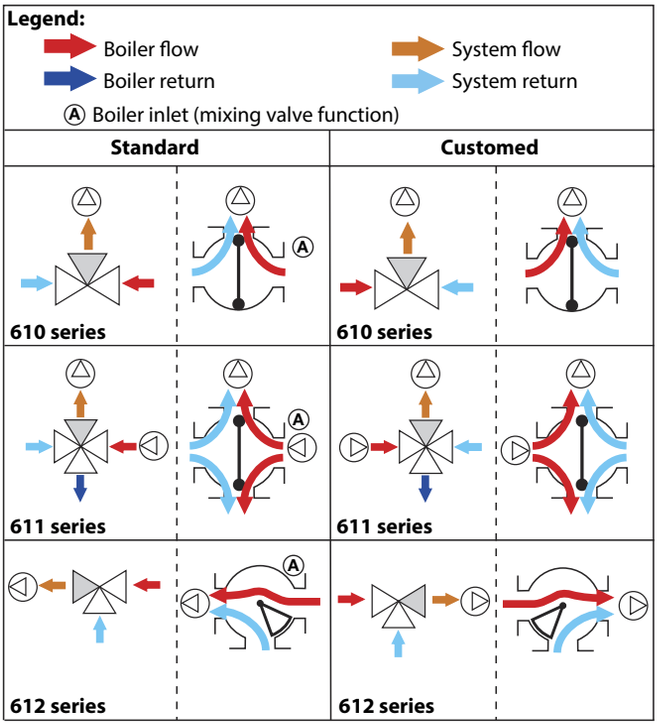
612

tech. broch. 01169

Three-way sector mixing valve.
Body PN 6.
Flanged connections.
To be coupled with
flat counterflanges EN 1092-1.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.
Heavy series.
Factory setting:
boiler inlet on the RH connection.

Code		Kv (m³/h)		
612050	DN 50 (2″)	42	1	–
612060	DN 65 (2 1/2″)	62	1	–
612080	DN 80 (3″)	123	1	–
612100	DN 100 (4″)	172	1	–
612120	DN 125 (5″)	340	1	–

MIXING VALVES



MOTORISED MIXING VALVES

NEW

6120

Motorised three-way sector mixing valve.
Threaded connections.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.

Boiler inlet on the RH connection

Code		Supply voltage V	Kv (m³/h)		
612025	3/4"	230	7,2	1	–
612026	1"	230	11,9	1	–
612027	1 1/4"	230	16,5	1	–
612028	1 1/2"	230	30	1	–

NEW

6120

Motorised three-way sector mixing valve.
Threaded connections.
Max. working pressure: 6 bar.
Temperature range: 2–110°C.

Boiler inlet on the LH connection

Code		Supply voltage V	Kv (m³/h)		
612015	3/4"	230	7,2	1	–
612016	1"	230	11,9	1	–
612017	1 1/4"	230	16,5	1	–
612018	1 1/2"	230	30	1	–

ACTUATORS

6370

tech. broch. 01169

Actuator for mixing valves
from 3/4" to 1 1/2".
With auxiliary microswitch.
Supply: 230 V o 24 V - 50 Hz.
Power consumption: 3 VA.
Auxiliary microswitch contact rating:
10 (2) A - 250 V (ac).
Protection class: IP 42.
Operating time: 60 s.
With adapter.

Boiler inlet on the RH connection

Code	Supply voltage V	Actuator torque (N·m)		
637002	230	15	1	–
637004	24	15	1	–

NEW

6370

Actuator for mixing valves
from 3/4" to 1 1/2".
With auxiliary microswitch.
Supply: 230 V o 24 V - 50 Hz.
Power consumption: 3 VA.
Auxiliary microswitch contact rating:
10 (2) A - 250 V (ac).
Protection class: IP 42.
Operating time: 60 s.
With adapter.

Boiler inlet on the LH connection

Code	Supply voltage V	Actuator torque (N·m)		
637001	230	15	1	–
637003	24	15	1	–

6370

tech. broch. 01169

Actuator for mixing valves
from 2" to 5".
With auxiliary microswitch.
Supply: 230 V o 24 V - 50 Hz.
Power consumption: 4,5 VA.
Auxiliary microswitch contact rating:
16 (4) A - 250 V (ac).
Protection class: IP 42.
Operating time: 180 s.
With adapter.

Boiler inlet on the RH connection

Code	Supply voltage V	Actuator torque (N·m)		
637012	230	35	1	–
637014	24	35	1	–

COUNTERFLANGES

616

Flat counterflange slip-on,
for welding EN 1092-1, PN 6.
Complete with bolts and gaskets.

Code			
616030	DN 32 (1 1/4″)	1	–
616040	DN 40 (1 1/2″)	1	–
616050	DN 50 (2″)	1	–
616060	DN 65 (2 1/2″)	1	–
616080	DN 80 (3″)	1	–
616100	DN 100 (4″)	1	–
616120	DN 125 (5″)	1	–

617

Flat counterflange slip-on,
for welding EN 1092-1, PN 16.
Complete with bolts and gaskets.

Code			
617030	DN 32 (1 1/4″)	1	–
617040	DN 40 (1 1/2″)	1	–
617050	DN 50 (2″)	1	–
617060	DN 65 (2 1/2″) 4 holes	1	–
617080	DN 80 (3″)	1	–
617100	DN 100 (4″)	1	–
617120	DN 125 (5″)	1	–
617150	DN 150 (6″)	1	–
617200	DN 200	1	–
617250	DN 250	1	–
617300	DN 300	1	–

TEMPERATURE REGULATORS

1520

Digital temperature regulator.
Complete with flow contact probe and outside probe.
Adjustment range: 20–90°C.
Supply: 230 V - 50 Hz.
Protection class: IP 40.

Code			
152001	1 channel	1	–
152002	2 channels	1	–
152003	3 channels	1	–

1520

Digital temperature regulator
for heating and cooling.
Complete with flow probe, outside probe and max. relative humidity probe.
Supply: 230 V - 50 Hz.
Power consumption: 5,5 VA.
Protection class: IP 40.

Code			
152021	1 channel	1	–

TEMPERATURE REGULATOR

NEW

161

Digital regulator with synoptic diagram for heating and cooling complete with immersion flow probes with pocket and return probe with contact probe holder.
Optional outside compensated probe.
Temperature adjustment range: 5–95°C.
Supply: 230 V - 50/60 Hz.
Protection class: IP 20 / EN 60529.
Probe cable length: 2,5 m.

CE

Code			
161010		1	–

161

Outside temperature probe.

Code			
161002		1	–

161

Pressure switch
with preconnected pin.
Warking range: 0,5–10 bar.
Max. working temperature: 100°C.
Cable length: 1 m.

Code			
161003	1/2"	1	–

161

Dew point sensor.
Working range: 30–100 UR%.

Code		
161004	1	–

161

Remote regulator.
Functions:
- translation of regulation curves,
- max. temperature,
- position OFF.

Code		
161005	1	–

CHRONO-THERMOSTATS

618

Digital chrono-thermostat,
with battery supply.
Daily or weekly programmable clock.
2 temperature levels + anti-freeze.
Fitted for phone programmer.
30-minute minimum programme.
Output contact: 8 (2) A.
Protection class: IP 30.

CE

Code			
618101	daily	1	–
618107	weekly	1	–

738

Digital room chrono-thermostat.
4 operating programmes with ON/OFF spark advance.
Weekly programmable clock.
Fitted for phone programmer.
3 temperature levels + anti-freeze.
30-minute minimum programme.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
SUMMER - WINTER switch.
Adjustable temperature with 0,1°C steps.
1 changeover switch output contact: 8 (2) A.
Protection class: IP 30.

CE

Code			
738217	built-in GSM module - supply 230 V	1	–

739

Digital chrono-thermostat,
with battery supply.
Weekly programmable clock.
Quick programming.
SUMMER - WINTER switch.
Output contact: 5 (2) A.
Protection class: IP 30.

CE

Code			
739107	135 x 90 x 28 mm	1	–

NEW

738

Digital room chrono-thermostat
with battery electric supply.
Backlit display and navigation via menu.
Weekly programmable clock.
Fitted for phone programmer.
3 temperature levels + anti-freeze.
30-minute minimum programme.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
SUMMER - WINTER switch.
Adjustable temperature with 0,1°C steps.
Relais output with changeover switch contact: 5 (3) A / 250 V.
Protection class: IP 30.

CE

Code			
738407		1	–

NEW

738

Touch screen digital chrono-thermostat
with battery electric supply.
Weekly programmable clock.
Fitted for phone programmer.
2 temperature levels + anti-freeze.
30-minute minimum programme.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
SUMMER- WINTER switch.
Adjustable temperature with 0,1°C steps.
1 changeover switch output contact: 8 (2) A.
Protection class: IP 30.

CE

Code			
738307		1	–

NEW

738

Digital room chrono-thermostat.
Electric supply: 230 V.
Backlit display and navigation via menu.
Backlit status bar.
Weekly programmable clock.
Fitted for phone programmer.
3 temperature levels + anti-freeze.
30-minute minimum programme.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
SUMMER - WINTER switch.
Adjustable temperature with 0,1°C steps.
Relais output with changeover switch contact: 5 (3) A / 250 V.
Protection class: IP 30.

CE

Code			
738427		1	–

THERMOSTATS - HOUR METER - TIMER

620

Room thermostat with changeover switch 10 (2,5) A - 230 V - 50 Hz.

620000: without warning lamp.

620100: with warning lamp.

620110: with warning lamp ON/OFF switch.

620120: with warning lamp and SUMMER - WINTER switch.

Protection class: IP 30.

Code			
620000		1	50
620100		1	50
620110		1	50
620120		1	50

619

Electronic room thermostat.
For fan-coil.
Supply: 230 V (ac).
Output contact: 5 (2) A.
Protection class: IP 30.

Code			
619120		1	10

NEW

619

Electronic room thermostat.
Daily programmable clock.
With warning lamp and SUMMER - WINTER switch.
Supply: 230 V (ac).
Output contact: 8 (2) A.
Protection class: IP 30.

Code			
619210		1	10

620

Digital room thermostat with display.
With changeover contact 5 (3) A.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
2 temperature levels + anti-freeze.
SUMMER - WINTER switch.
Adjustable temperature with 0,1°C steps.
Protection class: IP 30.

Code				
620300	battery supply	1	10
620302	electric supply 230 V	1	10

6205

tech. broch. 01186

Control bar.
Supply: 230 V - 50/60 Hz.
Power consumption: max. 5,5 VA (8 outputs).
Changeover contacts: 10 A.
Protection class: IP 30 (with rubber cable clamps).
Output command for pump.
Input for SUMMER - WINTER.
Input for timer.

Code			
620542	4 channels	1	–
620582	8 channels	1	–

627

5 digit hour meter,
230 V / 24 V - 50 Hz - 1,5 W.

Code	Supply voltage V		
627002	230	1	100
627004	24	1	100

628

Timer with display.
15-minute minimum ON/OFF cycle.
Maximum number of interventions: 96 (daily) - 672 (weekly).
16 (2) A / 250 V. IP 40.
230 V (ac) - 50/60 Hz.
Diverting relay.

Code			
628001	daily	1	–
628007	weekly	1	–

RADIO WAVE TEMPERATURE CONTROL SYSTEMS

740

tech. broch. 01118

Digital chrono-thermostat
with radio transmitter - 868 MHz.
Weekly programmable clock.
Fitted for phone programmer.
Supply: 2 x 1,5 V alkaline penlight.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
Max. range 120 m in free air.
2 temperature levels + anti-freeze.
Adjustable temperature with 0,1°C steps.
Protection class: IP 30.

Code			
740000		1	–

740

Table support
for chrono-thermostat code 740000.

Code			
740108		1	–

740

tech. broch. 01118

Electronic room thermostat
with radio transmitter - 868 MHz.
Supply: 2 x 1,5 V alkaline penlight.
ON/OFF function with adjustable differential from 0,2 to 2°C or proportional.
Max. range 120 m in free air.
SUMMER - WINTER control.
Adjustable temperature with 0,1°C steps.
Protection class: IP 30.

Code			
740201		1	–

740

tech. broch. 01118

Wall-mounting receiver.
1 or 2 channels - 868 MHz.
Supply: 230 V - 50/60 Hz.
Contact rating: 5 (2) A / 250 V.
Protection class: IP 30.

Code			
740100	1 channel	1	–
740104	2 channels	1	–

740

tech. broch. 01118

Wall-mounting receiver.
8 channels - 868 MHz.
Supply:
16–18 V (via control bar).
Power consumption: 1 VA.
8+1 bus output for pump activation.
Protection class: IP 30.

Code			
740202		1	–

740

tech. broch. 01118

Control bar.
Supply: 230 V - 50/60 Hz.
Power consumption:
max. 5,5 VA (8 outputs + 1).
Contact rating: 8 (2) A.
Protection class:
IP 52 (with rubber cable clamps).

Code			
740204	4 channels	1	–
740208	8 channels	1	–

741

tech. broch. 01118

Electronic actuator
with radio receiver - 868 MHz.
For convertible radiator or thermostatic valves.
It can be combined with systems 740 series.
Supply: 2 x 1,5 V alkaline penlight.
Protection class: IP 30.

Code			
741000		1	–

741

Tamper-proof protection kit
for actuator 741 series.

Code			
741019		1	10

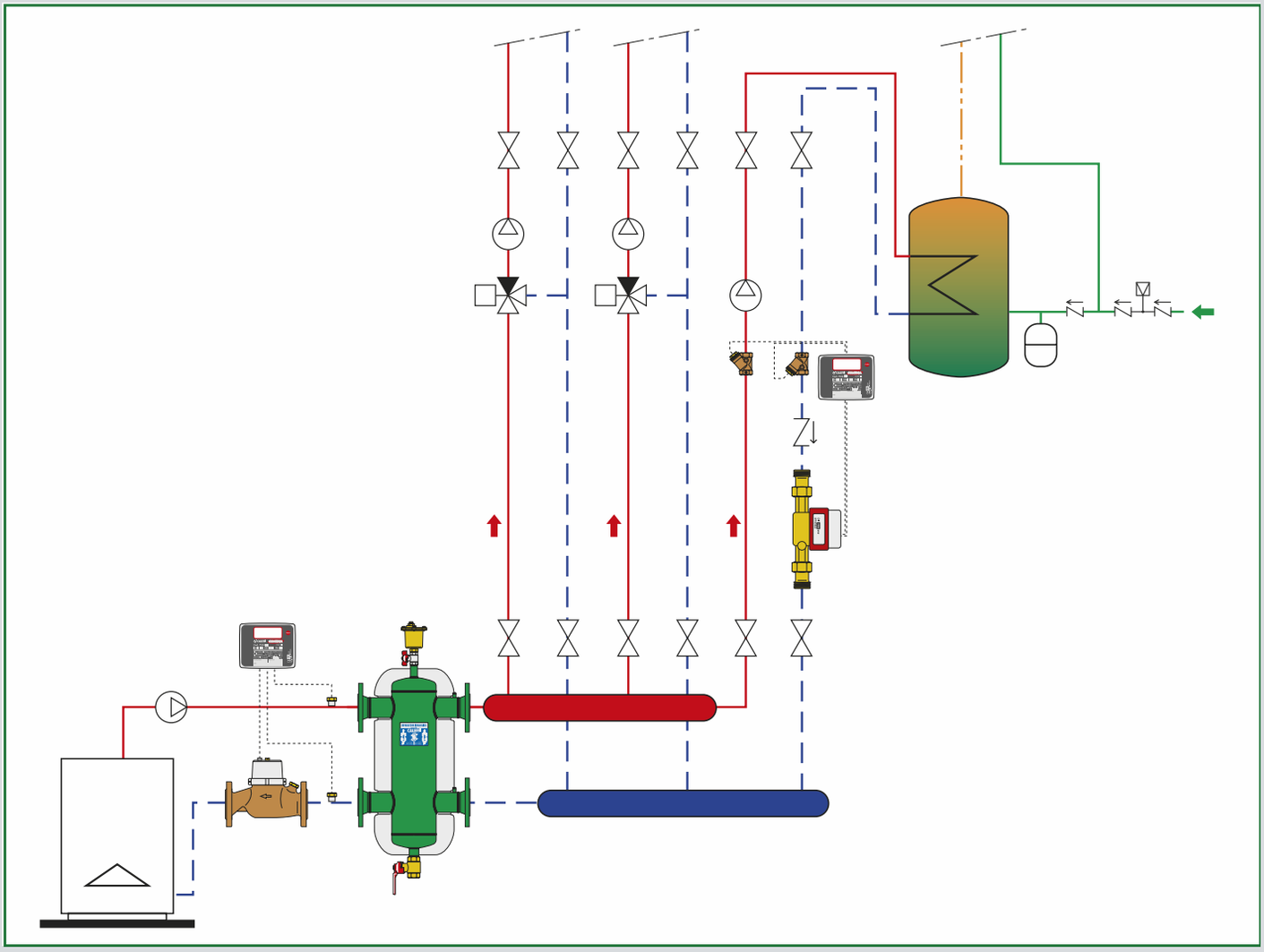
741

12 seal tamper-proof label set
for actuator 741 series.

Code			
741008		1	–

HEAT SYSTEMS

This diagram is just an indication



Direct heat meters
Heat cost allocators
User modules
Wall-mounted HIU - Instantaneous DHW production
Recess mounted HIU - Instantaneous DHW production

DIRECT HEAT METERS

DIRECT HEAT METER - CONTECA
7554 SERIES

- Individual and central heating systems metering
- Local - centralised readout
- Bus cable communication
- MID (Measuring Instruments Directive) certification
- Power supply 24 V (ac) - 50 Hz - 1W

RS-485

ULTRASONIC DIRECT HEAT METER - CONTECA ULTRA
7557 SERIES

- Metering for individual and central heating systems
- Local - centralised readout
- Communication via Bus RS-485 cable
- Ultrasonic flow meter
- MID (Measuring Instruments Directive) certification
- Power supply 24 V (ac) - 50 Hz - 1W

RS-485

DIRECT HEAT METER - CONTECA EASY
7504 SERIES

- Metering for individual and central heating systems
- Local - centralised readout
- Communication via Bus RS-485 cable
- MID compliant
- Power supply 24 V (ac) - 50 Hz - 1W

RS-485

ULTRASONIC DIRECT HEAT METER - CONTECA EASY ULTRA
7507 SERIES

- Metering for individual and central heating systems
- Local - centralised readout
- Communication via Bus RS-485 cable
- Ultrasonic flow meter
- MID compliant
- Power supply 24 V (ac) - 50 Hz - 1W

RS-485

DATALOGGER - CONTECA TOUCH
CODE 7550**10**

- Centralised acquisition of heat and domestic water consumptions via Bus RS-485
- Touch screen
- GSM modem
- Up to 250 meters

RS-485

DATALOGGER - DATA EASY / DATA EASY TELE
CODE 750450 / 750350

- Acquisition and logging of heat and domestic water consumption data
- Centralised readout of cumulative and instantaneous data from CONTECA 7554 and 7557 series heat meters
- Local memory up to 10 years (daily). Data report in .xls/.csv format
- DIN-rail mountable
- Remote access to the datalogger via LAN, ADSL or UMTS/GPRS router (DATA EASY TELE code 750350)
- Power supply 24 V (ac)/(dc) - 3 W

RS-485

DIRECT HEAT METERS

DIRECT HEAT METER - CONTECA M-BUS
7555 SERIES

- Metering for individual and central heating systems
- Local - centralised readout
- M-Bus communication
- MID (Measuring Instruments Directive) certification
- Battery powered

DATALOGGER - CONTECA TOUCH
CODE **7550**12

- Centralised acquisition of heat and domestic water consumptions on M-Bus networks
- Touch screen
- GSM modem
- Up to 250 meters

DATALOGGER - DATA EASY M-BUS / DATA EASY TELE M-BUS
CODE **750**650 / **750**550

- Acquisition and logging of heat and domestic water consumption data
- Centralised readout of cumulative and instantaneous data from CONTECA 7555 M-BUS series
- Local memory up to 10 years (daily). Data report in .xls/.csv format
- Remote access to the datalogger via LAN, ADSL or UMTS/GPRS router (DATA EASY TELE M-BUS code 750550)
- DIN-rail mountable / Power supply 24 V (ac)/(dc) - 3 W

COMPACT DIRECT HEAT METER - SENSONICAL
CAL1915 SERIES

- Metering for individual heating systems
- Local readout
- MID (Measuring Instruments Directive) certification
- Battery powered

COMPACT ULTRASONIC DIRECT HEAT METER - SENSONICAL ULTRA
CAL1918 SERIES

- Metering for individual heating systems
- Local - centralised readout on M-Bus networks
- MID (Measuring Instruments Directive) certification
- Battery powered

DIRECT HEAT METERS

DIRECT HEAT METER FOR SOLAR SYSTEMS - CONTECA SOLAR 75525 SERIES

- Metering for solar systems
- Local - centralised readout
- Communication via Bus RS-485 cable
- Power supply 24 V (ac) - 50 Hz - 1 W

CALEFFI SOLAR

RS-485

DOMESTIC WATER CONSUMPTION MULTIPLE ACQUIRER - AQUAPRO 7556 SERIES

- Acquisition of hot and cold domestic water consumption data
- Local - centralised readout
- Communication via Bus RS-485 cable
- Up to 8 domestic water meters per acquisition module
- Power supply 24 V (ac) - 50 Hz - 1 W

RS-485

DOMESTIC WATER CONSUMPTION DATALOGGER - AQUAPRO CODE 755011

- Centralised acquisition of domestic water consumption via Bus RS-485 cable
- Touch screen
- GSM modem
- Up to 250 AQUAPRO acquirers

RS-485

HEAT COST ALLOCATORS

HEAT COST ALLOCATOR - MONITOR 2.0
CODE 720020

- Indirect heat metering for buildings with vertical distribution of heat
- Two temperature sensors
- Two-way wireless transmission, frequency 868.0–868.6 MHz
- Parameterisation and readouts via USB/Radio device and software SW7200
- Data centralisation by means of a building datalogger and radio repeaters
- Compliant with EN 834

HEAT COST ALLOCATOR FOR CONVECTORS WITH REMOTE PROBE - MONITOR 2.0 E
CODE 720025

- Indirect heat metering for buildings with vertical distribution of heat
- With remote sensor L = 1,5 m for installation on convectors
- Two-way wireless transmission, frequency 868.0–868.6 MHz
- Parameterisation and readouts via USB/Radio device and software SW7200
- Data centralisation by means of a building datalogger and radio repeaters
- Compliant with EN 834

PULSE ACQUIRER - MONITOR-PULSE
CODE 720030

- Acquisition of domestic water consumption or heat consumption from direct heat meters
- Acquisition of a volt free or open collector pulse input
- Two-way wireless transmission, frequency 868.0–868.6 MHz, compatible with MONITOR 7200 series heat cost allocators
- Programming and readouts via USB/Radio device
- Data centralisation by means of a building datalogger and radio repeaters

REMOTE DATALOGGER FOR HEAT COST ALLOCATORS MONITOR 2.0
CODE 720091

- Data transmission to a dedicated FTP server via GSM/GPRS modem
- Programmable periodic automatic readouts, logging of consumption data with local access to memory and/or transmission to FTP server

RADIO REPEATER FOR HEAT COST ALLOCATORS MONITOR 2.0
CODE 720092 / **7200**93

- Transmission of consumption data to datalogger code 720091
- Electric supply 230 V (ac) - 1 W (code 720092) / Supply from 18 Ah lithium battery (code 720093)

USER MODULES

UNIVERSAL USER MODULE - PLURIMOD EASY 7002 SERIES

- Universal positioning recess mounting box
- PLURIMOD EASY module with 2-way zone valve
- CONTECA heat meter
- Predisposition for fitting 2 water meters
- Built-in Δp control, fixed setting 20 or 30 kPa
- Insulation suitable for cooling applications
- Ideal for use in variable flow systems with thermoregulation by means of thermostatic valves

RS-485

UNIVERSAL USER MODULE - PLURIMOD 7000 SERIES

- Universal positioning recess mounting box
- PLURIMOD module with 2-way/3-way zone valve
- Fitted for AUTOFLOW®
- CONTECA heat meter
- Predisposition for fitting 3 water meters

RS-485

UNIVERSAL USER MODULE - PLURIMOD CLIMA SERIA 7001

- Universal positioning recess mounting box
- PLURIMOD module with 2-way/3-way zone valve
- Fitted for AUTOFLOW®
- CONTECA heat meter
- Predisposition for fitting 3 water meters
- Improved thermal insulation suitable for cooling applications

RS-485

USER MODULE - PLURIMOD EASY 70026 - 70028 - 70029 SERIES

- Recessed box with reversible connections
- Template for PLURIMOD EASY module
- 2 pairs of 3/4" M ball valves, 2 flushing pipes
- Predisposition for fitting 2 water meters
- 70026 series: 2 manifolds 664 series, 2–8 connections, for underfloor heating systems
- 70028 series: 2 manifolds 662 series, 2–8 connections, for fan-coil systems
- 70029 series: 2 manifolds 350 series, 2–8 connections, for radiator systems

RS-485

USER MODULE - PLURIMOD 70006 - 70008 - 70009 SERIES

- Recessed box with reversible connections
- Template for PLURIMOD module
- 2 pairs of 3/4" M ball valves, 2 flushing pipes
- Predisposition for fitting 2 water meters
- 70006 series: 2 manifolds 664 series, 2–8 connections, for underfloor heating systems
- 70008 series: 2 manifolds 662 series, 2–8 connections, for fan-coil systems
- 70009 series: 2 manifolds 350 series, 2–8 connections, for radiator systems

USER MODULES

UNIVERSAL USER MODULE - PLURIMOD EASY DUPLEX 7002 SERIES

- Recess mounting box
- PLURIMOD EASY module with 2-way zone valve
- CONTECA heat meters
- Predisposition for fitting 6 water meters

UNIVERSAL USER MODULE - PLURIMOD DUPLEX 7000 SERIES

- Recess mounting box
- PLURIMOD module with 2-way/3-way zone valve
- Fitted for AUTOFLOW®
- CONTECA heat meters
- Predisposition for fitting 6 water meters

UNIVERSAL USER MODULE - PLURIMOD CLIMA DUPLEX 7001 SERIES

- Recess mounting box
- PLURIMOD CLIMA module with 2-way/3-way zone valve
- Fitted for AUTOFLOW®
- CONTECA heat meters
- Predisposition for fitting 6 water meters

MULTI-USER PREASSEMBLED UNITS FOR PLURIMOD 7000 SERIES

- Fitted for 3 dwellings
- Compact installation in the landlord area
- For heating/cooling (code 700036) and DHW/DCW (code 700037)
- Insulation for manifolds
- Templates for PLURIMOD modules with flushing pipes

2-WAY USER MODULE 799 - 7992 SERIES

- Recess mounting box
- 2-way zone valve
- AUTOFLOW® fitted on 799 series
- Fitted for CONTECA heat meter
- Predisposition for fitting 2 water meters
- With or without distribution manifolds

USER MODULES

3-WAY USER MODULE
796 SERIES

- Recess mounting box
- 3-way zone valve
- Balancing TEE
- Fitted for CONTECA heat meter
- Predisposition for fitting 2 water meters
- With or without distribution manifolds

3-WAY USER MODULE
795 SERIES

- Recess mounting box
- 3-way zone valve
- Balancing TEE
- Fitted for SENSONICAL heat meter
- Predisposition for fitting 2 water meters
- With or without distribution manifolds

DOUBLE USER MODULE
7900 SERIES

- Recess mounting box
- Modular double user module with either 2-way or 3-way zone valves
- Modular user module suitable for 4-pipe systems with either 2-way or 3-way zone valves
- Fitted for CONTECA heat meter
- Predisposition for fitting 4 water meters

USER MODULE WITH REGULATING UNIT
7921 SERIES

- Recess mounting box
- User module for low temperature heating with manifold for high temperature heat emitters
- Regulator for low temperature heating
- Fitted for CONTECA heat meter
- Predisposition for fitting 2 water meters

DISTRIBUTION UNITS
765 - 766 - 767 SERIES

- Direct supply unit (765 series)
- Thermostatic regulating unit (766 series)
- Motorised regulating unit (767 series)
- High-efficiency pump
- Fitted for CONTECA heat meter
- With insulation

COMPACT WALL MOUNTED DIRECT HIU
INSTANTANEOUS DHW PRODUCTION - SATK20 SERIES

SATK20103HE - **LOW TEMPERATURE HIU**

Heating (set point regulation)
- Modulating valve
- Thermal safety solenoid valve
- Flow temperature probe
- Safety thermostat
- High-efficiency pump

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

SATK20203HE - **MEDIUM TEMPERATURE HIU**

Heating (set point regulation)
- Modulating valve
- Flow temperature probe
- High-efficiency pump

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

SATK20303/**SATK20**305 - **HIGH TEMPERATURE HIU**

Heating (ON/OFF regulation)
- 2-way zone valve

DHW production
- Brazed heat exchanger **40 kW** (SATK20303)
- Brazed heat exchanger **65 kW** (SATK20305)
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

SATK20403HE - **HIGH TEMPERATURE HIU**

- High-efficiency pump

Heating (ON/OFF regulation)
- 2-way zone valve

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

COMPACT WALL MOUNTED INDIRECT HIU
INSTANTANEOUS DHW PRODUCTION - SATK30 SERIES

SATK30103HE - **DHW 40 KW**

Heating (set point regulation)
- Brazed heat exchanger (P_{nom} 15 kW);
- 2-way modulating valve on the primary circuit of the heat exchanger
- Safety relief valve, 3 bar
- Flow temperature probe
- Safety thermostat
- Expansion vessel, 7 l
- High-efficiency pump
- Filling unit
- Pressure switch

DHW production
- Brazed heat exchanger **40 kW**
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW temperature probe
- DHW priority flow meter
- Electronic regulator

SATK30105HE - **DHW 65 KW**

Heating (set point regulation)
- Brazed heat exchanger (P_{nom} 15 kW)
- 2-way modulating valve on the primary circuit of the heat exchanger
- Safety relief valve, 3 bar
- Flow temperature probe
- Safety thermostat
- Expansion vessel, 7 l
- High-efficiency pump
- Filling unit
- Pressure switch

DHW production
- Brazed heat exchanger **65 kW**
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW temperature probe
- DHW priority flow meter
- Electronic regulator

COMPACT WALL MOUNTED INDIRECT HIU
STORED DHW PRODUCTION - SATK40 SERIES

SATK40103HE

Heating (set point regulation)
- Brazed heat exchanger (P_{nom} 15 kW);
- 2-way modulating valve on the primary circuit of the heat exchanger
- Safety relief valve, 3 bar
- Flow temperature probe
- Safety thermostat
- Expansion vessel, 7 l
- High-efficiency pump
- Filling unit
- Pressure switch
- Electronic regulator

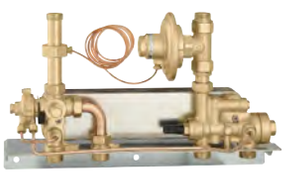
COMPACT MECHANICAL WALL MOUNTED HIU
INSTANTANEOUS DHW PRODUCTION - SATK12 SERIES - SATK15 SERIES

SATK12313 - **ON/OFF DHW PRODUCTION**
Mechanical version - Connections: primary on the top
secondary on the bottom

- Differential diverting valve for DHW priority over heating
- Brazed heat exchanger **40 kW**
- Fastening bracket

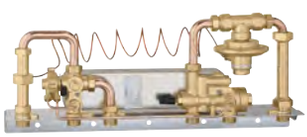
SATK15303 DPCV - **MODULATING DHW PRODUCTION**
Mechanical version - Connections: primary on the top
secondary on the bottom

- Differential diverting valve for DHW priority over heating
- Modulating regulation for DHW production
- Brazed heat exchanger **40 kW**
- Differential pressure control valve (30 kPa)
- Fastening bracket



SATK15313 ABC - **MODULATING DHW PRODUCTION**
Mechanical version - All connections on the bottom

- Differential diverting valve for DHW priority over heating
- Modulating regulation for DHW production
- Brazed heat exchanger **40 kW**
- Differential pressure control valve (30 kPa)
- Fastening bracket



COMPACT RECESS MOUNTED DIRECT HIU
INSTANTANEOUS DHW PRODUCTION - SATK 50 SERIES

SATK50103HE - **LOW TEMPERATURE HIU**

Heating (set point regulation)
- Modulating valve
- Thermal safety solenoid valve
- Flow temperature probe
- Safety thermostat
- High-efficiency pump
- High temperature connections for towel radiators

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

SATK50203HE - **MEDIUM TEMPERATURE HIU**

Heating (set point regulation)
- Modulating valve
- Flow temperature probe
- High-efficiency pump

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

SATK50303 - **HIGH TEMPERATURE HIU**

Heating (ON/OFF regulation)
- 2-way zone valve

DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

794950 - **RECESS MOUNTING TEMPLATE BOX FOR SATK50 SERIES**

- Recessed housing box for SATK50 series
- Complete with shut off valves for preliminary connections to the system
- Fitted for installation of water meter template and CONTECA heat metering

COMPACT RECESS MOUNTED INDIRECT HIU
INSTANTANEOUS DHW PRODUCTION - SATK60 SERIES

SATK60103HE - **RECESS MOUNTED INDIRECT HIU**

Heating (set point regulation)
- Brazed heat exchanger (P_{nom} 15 kW)
- 2-way modulating valve on the primary circuit of the heat exchanger
- Safety relief valve, 3 bar
- Flow temperature probe
- Safety thermostat
- Expansion vessel, 7 l
- High-efficiency pump
- Filling unit
- Pressure switch

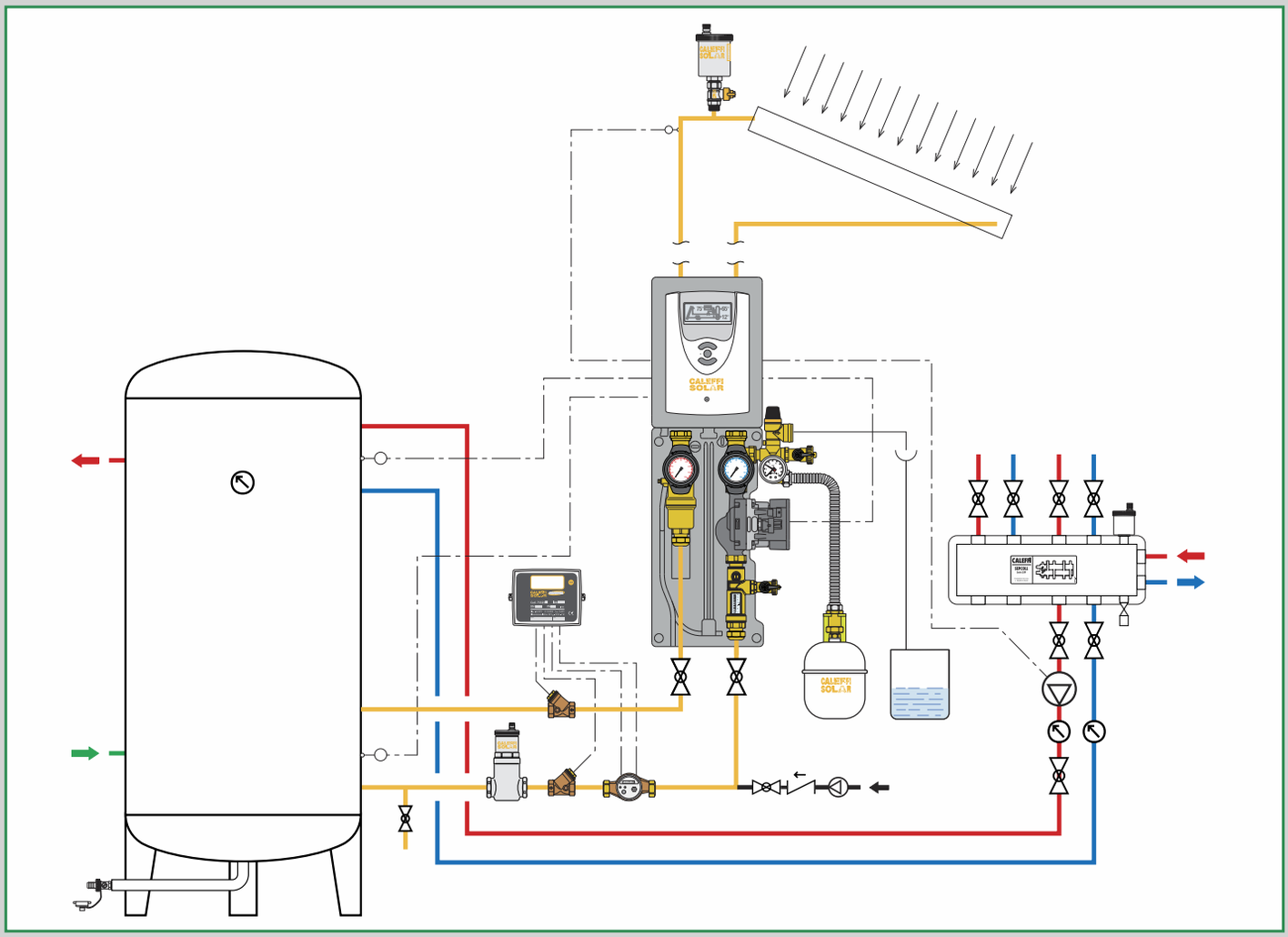
DHW production
- Brazed heat exchanger **40 kW**
- DHW temperature probe
- 2-way modulating valve on the primary circuit of the heat exchanger
- DHW priority flow meter
- Electronic regulator

794960 - **RECESS MOUNTING TEMPLATE BOX FOR SATK60 SERIES**

- Recessed housing box for SATK60 series
- Complete with shut off valves for preliminary connections to the system
- Fitted for installation of water meter template and CONTECA heat metering

COMPONENTS FOR SOLAR THERMAL SYSTEMS

This diagram is just an indication



Safety relief valve - Automatic air vents
Deaerators, DISCAL® - Manual air separator
Pump stations
Ball valve - Three piece union fitting
Mechanical fittings with O-Ring seal
Digital regulator - Differential regulators and thermostat
Heat meter CONTECA
Balancing valve with flow meter
Motorised ball diverter valve
Thermostatic diverter valve
Thermostatic mixing valves
Solar storage-to-boiler connection kit
Temperature and pressure relief valve
Anti-freeze safety device

Domestic Water Sizer
DOMESTIC WATER SYSTEM SIZER ALSO FOR SMARTPHONE
Available on www.caleffi.it and app for smartphone.
Download the version for your iOS and Android® mobile phone.

CALEFFI SOLAR

The CALEFFI SOLAR product range has been specifically developed for use in solar thermal systems, where high temperatures can normally be reached and where, depending on the kind of system, there can be glycol. Materials and performance of the components must necessarily take into account these particular operating conditions.

SAFETY RELIEF VALVE - AUTOMATIC AIR VENTS

253

tech. broch. 01089

Safety relief valve for solar thermal systems.
Brass body. Chrome plated.
Female connections. PN 10.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Oversized discharge outlet.
Discharge rating: 1/2″ - 50 kW;
3/4″ - 100 kW.
TÜV certified to TRD 721 - SV 100 § 7.7.
Settings: 2,5 - 3 - 4 - 6 - 8 - 10 bar.

www.tuv.com
ID 0000013604

Code				
253042	1/2″ F x 3/4″ F	2,5 bar	1	50
253043	1/2″ F x 3/4″ F	3 bar	1	50
253044	1/2″ F x 3/4″ F	4 bar	1	50
253046	1/2″ F x 3/4″ F	6 bar	1	50
253048	1/2″ F x 3/4″ F	8 bar	1	50
253040	1/2″ F x 3/4″ F	10 bar	1	50
253052	3/4″ F x 1″ F	2,5 bar	1	25
253053	3/4″ F x 1″ F	3 bar	1	25
253054	3/4″ F x 1″ F	4 bar	1	25
253056	3/4″ F x 1″ F	6 bar	1	25
253058	3/4″ F x 1″ F	8 bar	1	25
253050	3/4″ F x 1″ F	10 bar	1	25

250

tech. broch. 01133

Consisting of:

- Automatic air vent for solar thermal systems.

Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. discharge pressure: 5 bar.
Temperature range: -30–180°C.
Max. percentage of glycol: 50%.

- Shut-off cock complete with seal.

Brass body. Chrome plated.
Max. working pressure: 10 bar.
Temperature range: -30–200°C.
Max. percentage of glycol: 50%.

Code				
250031	3/8″ M	without cock	1	25
250131	3/8″ M		1	25
250041	1/2″ M	without cock	1	25

250

Consisting of:

- Automatic air vent for solar thermal systems.

Brass body. Chrome plated.
Max. working pressure: 10 bar.
Max. discharge pressure: 2,5 bar.
Temperature range: -30–180°C.
Max. percentage of glycol: 50%.

- Shut-off cock complete with seal.

Brass body. Chrome plated.
Max. working pressure: 10 bar.
Temperature range: -30–200°C.
Max. percentage of glycol: 50%.

Code				
250831	3/8″ M	without cock	1	50
250931	3/8″ M		1	50

251 DISCALAIR®

tech. broch. 01135

High-performance automatic air vent for solar thermal systems.
Brass body. Chrome plated.
Female connections.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.

Code			
251004	1/2″ F	1	10

250

tech. broch. 01133

Shut-off cock complete with seal.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Temperature range: -30–200°C.
Max. percentage of glycol: 50%.

Code			
250300	3/8″ M x 3/8″ F - batterfly handle	1	10
250400	1/2″ M x 1/2″ F - lever handle	1	10

The automatic air vent must be shut off after the system has been filled.

DEAERATORS - MANUAL AIR SEPARATOR

251 DISCAL®

tech. broch. 01134

Deaerator for solar thermal systems.
Brass body. Chrome plated.
Female connections.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.

Code			
251003	3/4″ F	1	10

251 DISCAL®

tech. broch. 01134

Deaerator for solar thermal systems.
Brass body. Chrome plated.
Female connections.
With drain.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.

Code			
251006	1″ F	1	–
251007	1 1/4″ F	1	–

251 DISCAL®

tech. broch. 01134

Deaerator for vertical pipes,
for solar thermal systems.
Brass body. Chrome plated.
Female connections.
Max. working pressure: 10 bar.
Max. discharge pressure: 10 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.

Code			
251905	3/4″ F	1	–
251906	1″ F	1	–

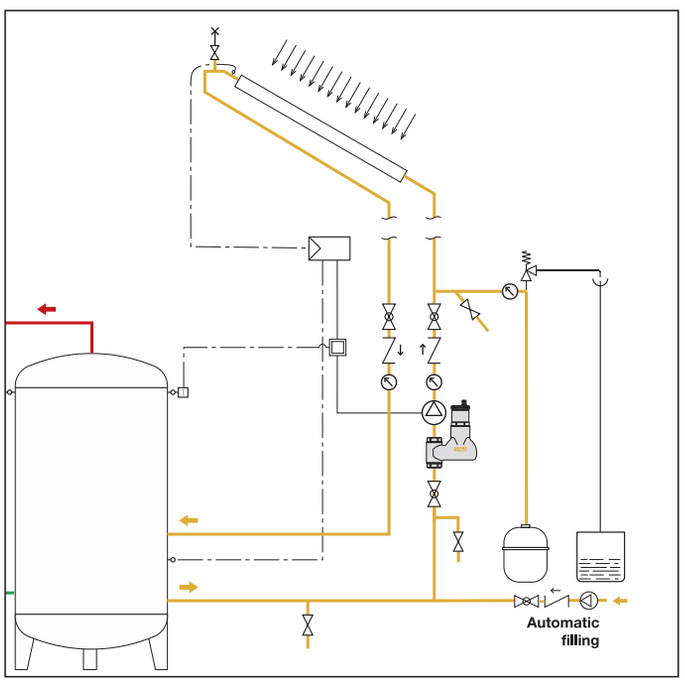
251

tech. broch. 01197

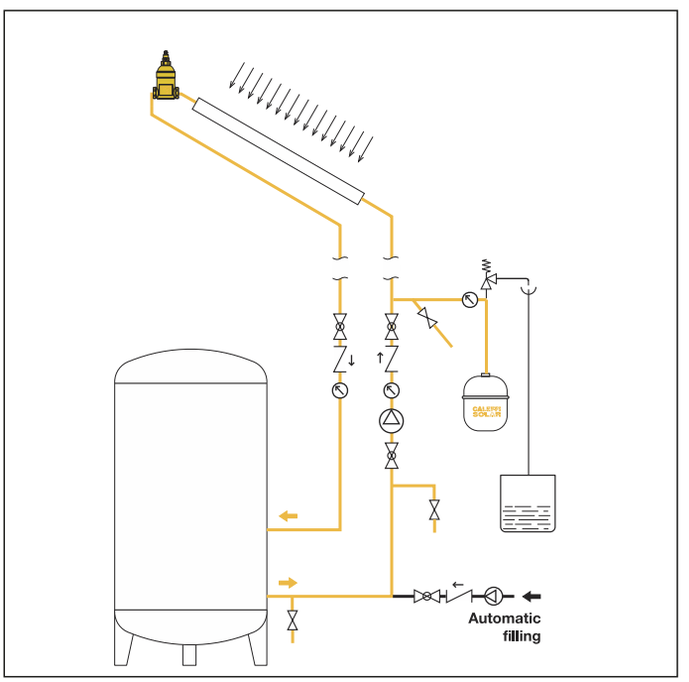
Manual air separator
for solar thermal systems.
Brass body.
Female connections.
Max. working pressure: 10 bar.
Temperature range: -30–200°C.
Max. percentage of glycol: 50%.

Code			
251093	3/4″ F	1	10

Application diagram of DISCAL® 251 series for vertical pipes



Application diagram 251 series



PUMP STATIONS

278

Pump station for solar thermal systems,
return connection.
Electric supply: 230 V (ac).
Max. working pressure: 10 bar.
Safety relief valve temperature range: -30–160°C.
Safety relief valve setting: 6 bar (for other setting,
see 253 series using the adapter code F21224).
Flow meter temperature range: -10–110°C.
Max. percentage of glycol: 50%.

Consisting of:
- Solar circulation pump;
- safety relief valve for solar thermal systems 253 series;
- fill/drain cock;
- instrument holder fitting with pressure gauge;
- flow meter;
- return temperature gauge;
- shut-off valve with check valve;
- 2 hose connections;
- pre-formed shell **insulation**.

Code		Flow meter scale (l/min)	Pump		
278050HE	3/4" F	1–13	UPM3 15-75*	1	–
278052HE	3/4" F	8–30	UPM3 15-75*	1	–

** With PWM control*

278

Pump station for solar thermal systems,
return connection.
Electric supply: 230 V (ac).
Max. working pressure: 10 bar.
Safety relief valve temperature range: -30–160°C.
Safety relief valve setting: 6 bar (for other setting,
see 253 series using the adapter code F21224).
Flow meter temperature range: -10–110°C.
Max. percentage of glycol: 50%.

Consisting of:
- Solar circulation pump;
- safety relief valve for solar thermal systems 253 series;
- fill/drain cock;
- instrument holder fitting with pressure gauge;
- flow meter;
- return temperature gauge;
- shut-off valve with check valve;
- 2 hose connections;
- pre-formed shell **insulation**.

Fitted for coupling with digital regulator DeltaSol® SLL.

Code		Flow meter scale (l/min)	Pump		
278750HE	3/4" F	1–13	UPM3 15-75*	1	–
278752HE	3/4" F	8–30	UPM3 15-75*	1	–

** With PWM control*

PUMP STATIONS

279

Pump station for solar thermal systems,
flow and return connection.
Electric supply: 230 V (ac).
Max. working pressure: 10 bar.
Safety relief valve temperature range: -30–160°C.
Safety relief valve setting: 6 bar (for other setting, see 253 series using the adapter code F21224).
Flow meter temperature range: -10–110°C.
Max. percentage of glycol: 50%.

Consisting of:
- Solar circulation pump;
- safety relief valve for solar thermal systems 253 series;
- 2 fill/drain cocks;
- instrument holder fitting with pressure gauge;
- flow meter;
- deaerator device;
- flow temperature gauge;
- return temperature gauge;
- 2 shut-off valves with check valves;
- 2 hose connections;
- pre-formed shell **insulation**.

Fitted for coupling with digital regulator DeltaSol® SLL

Code		Flow meter scale (l/min)	Pump		
279050HE	3/4" F	1–13	UPM3 15-75*	1	–
279052HE	3/4" F	8–30	UPM3 15-75*	1	–

** With PWM control*

NEW 278

Digital regulator DeltaSol® SLL with PWM control.
Electric supply: 230 V (ac).
Complete with pre-forme shell **insulation** for coupling with pump stations 278...HE, 279...HE and 255...HE series.
Complete with 3 Pt1000 probes, with fourth probe as optional.
Functions: differential temperature regulator with supplementary and optional functions.
Inputs: for 4 Pt1000 probes.
Outputs: 3 semiconductor relays
2 PWM.

Code			
278005		1	–
F29883	PWM cable	1	–

PUMP STATIONS

255

Pump station for solar thermal systems,
flow and return connection.
Electric supply: 230 V (ac).
Max. working pressure: 10 bar.
Safety relief valve temperature range: -30–160°C.
Safety relief valve setting: 6 bar (for other setting see 253 series).
Max. flow meter temperature: 120°C.
Max. percentage of glycol: 50%.

Consisting of:
- Solar circulation pump;
- safety relief valve for solar thermal systems 253 series;
- 2 fill/drain cocks with hose connections;
- instrument holder fitting with pressure gauge;
- flow regulator with flow meter;
- deaerator device;
- flow temperature gauge;
- return temperature gauge;
- 2 shut-off valves with check valves;
- pre-formed shell **insulation**.

Code		Flow meter scale (l/min)	Pump		
255266HE	1″ F	5–40	PML 25-145*	1	–

** With PWM control*

BALL VALVE

240

tech. broch. 01185

Ball valve for solar thermal systems.
Body and ball in stainless steel AISI 316.
PN 63.
Female connections.
Handle in stainless steel AISI 304.
Temperature range: -30–200°C.
Max. percentage of glycol: 50%.

Code			
240400	1/2″	1	5
240500	3/4″	1	5
240600	1″	1	5

ACCESSORIES FOR PUMP STATIONS

259

tech. broch. 01246

Welded expansion vessel only
for primary circuit of solar thermal systems,
EC certification. Bladder membrane.
Max. working pressure: 10 bar.
System working temperature range: -10–120°C.
Membrane working temperature range: -10–70°C.
Max. percentage of glycol: 50%.
Conformity to EN 13831 standard.

Code	Litres	Conn.	Precharge (bar)		
259008	8	3/4″	2,5	1	–
259012	12	3/4″	2,5	1	–
259018	18	3/4″	2,5	1	–
259025	25	3/4″	2,5	1	–
259033	33	3/4″	2,5	1	–

259

tech. broch. 01246

Welded expansion vessel only
for primary circuit of solar thermal systems,
EC certification.Diaphragm membrane.
Max. working pressure: 10 bar.
System working temperature range: -10–120°C.
Membrane working temperature range: -10–70°C.
Max. percentage of glycol: 50%.
Conformity to EN 13831 standard.

Code	Litres	Conn.	Precharge (bar)		
259050	50	3/4″	2,5	1	–
259080	80	1″	2,5	1	–

255

tech. broch. 01136

Expansion vessel connection kit.
Consisting of:
- stainless steel flexible hose (L=610 mm);
- automatic shut-off cock;
- wall mounting bracket (for vessels up to 24 litres).

Max. working pressure: 10 bar.
Shut-off cock max. working temperature: 110°C.
Max. percentage of glycol: 50%.

Code			
255007	3/4″	1	–

255

System filling pump
for pump stations 279, 278 and 255 series.

Code		
255010	1	–

Adapter for pump stations 278 and 279 series.
To be used for the installation
of the 1/2″ safety relief valve 253 series.

Code
F21224

MECHANICAL FITTINGS WITH O-RING SEAL

2540

Female fitting, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254055	3/4" F - Ø 15	1	25
254058	3/4" F - Ø 18	1	25
254052	3/4" F - Ø 22	1	25
254062	1" F - Ø 22	1	25
254068	1" F - Ø 28	1	10

2543

Coupling sleeve, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254305	Ø 15	1	25
254308	Ø 18	1	25
254302	Ø 22	1	25

2544

Male fitting, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254455	3/4" M - Ø 15	1	25
254458	3/4" M - Ø 18	1	25
254452	3/4" M - Ø 22	1	25
254465	1" M - Ø 15	1	25
254462	1" M - Ø 22	1	25

2545

Elbow coupling sleeve, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254505	Ø 15	1	25
254508	Ø 18	1	25
254502	Ø 22	1	25

2546

Tee fitting, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254602	Ø 22	1	20

2547

Male elbow fitting, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254755	3/4" M - Ø 15	1	25
254758	3/4" M - Ø 18	1	25
254752	3/4" M - Ø 22	1	25

2548

Female elbow fitting, mechanical O-Ring seal for solar thermal systems.
For annealed copper, hard copper, brass, mild and stainless steel pipes.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code			
254855	3/4" F - Ø 15	1	25
254858	3/4" F - Ø 18	1	25
254852	3/4" F - Ø 22	1	25

2540

Plug for Ø 22 copper pipe.

Code			
254002	Ø 22	1	25

THREE-PIECE UNION FITTING

588

Three-piece straight union fitting for solar thermal systems.
Max. working pressure: 16 bar.
Temperature range: -30–160°C.
Max. percentage of glycol: 50%.
Black nickel plated nut.

Code				
588052	3/4" F	x M with union	1	25
588062	1" F	x M with union	1	20

DIGITAL REGULATOR

257
SOLCAL® 1

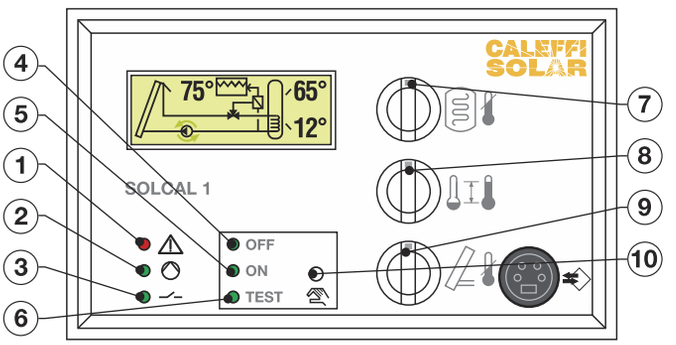
Digital regulator for solar thermal systems.
Complete with wall mounting basis
for plug-in electrical connection.
Complete with three probes type Pt1000.
Double relays output.
Supply: 230 V ±6% - 50 Hz.
Power consumption: 4 VA.
Max. contact rating: 250 V (ac) - 8 (2) A.
Protection class: IP 40.

Code			
257041		1	–

Spare parts for regulator 257 series.

Code			
257005	Pt1000 probe - temperature -5–80°C	1	–
257006	Pt1000 probe - temperature -50–80°C	1	–

Characteristic components



1) LED 1: function error or probe fault (red)
2) LED 2: Solar circuit pump ON
3) LED 3: second relays output active
4) LED 4: OFF regulator non active
5) LED 5: ON regulator active
6) LED 6: active relays test
7) Storage temperature control setting at level 1, at level 2 depending on programme (see system)
8) ΔT min. and max. control
9) Min. temperature control for solar panel activation and min. working time
10) Operation button

Regulation programs

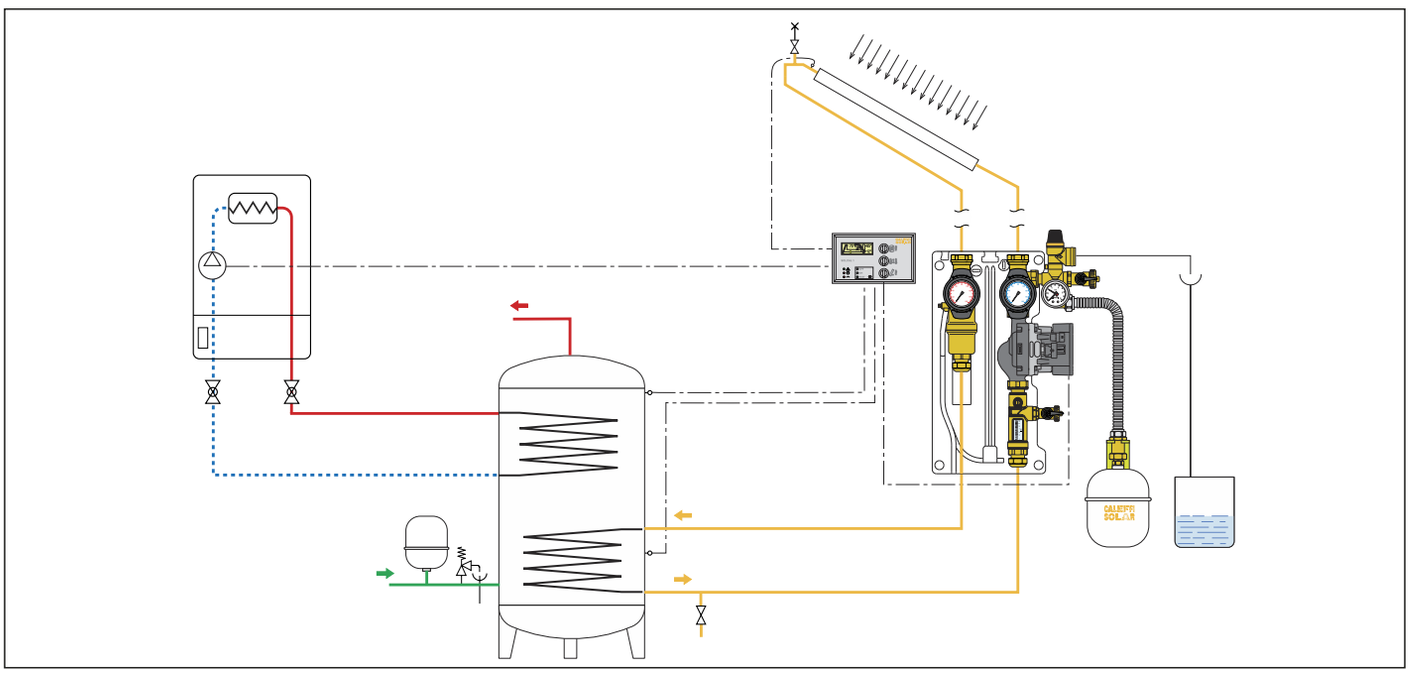
The regulator allows to manage 11 regulation programs, depending on the possible system configurations. They can be used for systems with single or double storage, swimming-pools, heating or domestic water systems, etc..

257

Pocket for Pt1000 probe.
In steel.
Length: 100 mm.

Code			
257004	1/2″	1	–

Application diagram of regulator 257 series



DIFFERENTIAL REGULATORS AND THERMOSTAT

257

tech. broch. 01143

Differential temperature regulator
for solar thermal systems, with relays output.
Complete with contact probe and
immersion probe with pocket.
Box protection class: IP 65.
Supply: 230 V ±6% - 50 Hz.
Nominal power consumption: 1,45 VA.
Contact rating on switch-over: 6 A (230 V).
ΔT adjustment range: 2–20 K.
Hysteresis: 2 K (±1 K).

CE

Code			
257010		1	–

257

tech. broch. 01143

Differential temperature regulator
for solar thermal systems, with relays output.
Box protection class: IP 65.
Supply: 230 V ±6% - 50 Hz.
Nominal power consumption: 1,45 VA.
Contact rating on switch-over: 6 A (230 V).
ΔT adjustment range: 2–20 K.
Hysteresis: 2 K (±1 K).

CE

Code			
257000		1	–

257

tech. broch. 01143

Thermostat for solar thermal systems,
with relays output. For thermal integration
control and diverter valves.
Box protection class: IP 65.
Supply: 230 V ±6% - 50 Hz.
Nominal power consumption: 1,45 VA.
Contact rating on switch-over: 6 A (230 V).
Adjustment temperature range: 20–90°C.
Hysteresis: 1 K.

CE

Code			
257002		1	–

257

tech. broch. 01143

Box complete with DIN bar,
for regulator or thermostat 257 series.
Protection class: IP 65.

Code	(h x b x p)		
257001	200 x 122 x 112	1	–

257

tech. broch. 01143

Double box complete with DIN bar,
for regulator and thermostat 257 series.
Protection class: IP 65.

Code	(h x b x p)		
257003	200 x 160 x 112	1	–

150

tech. broch. 01143

Contact probe for regulator or thermostat
257 series and for regulator 1520 series
(flow or return).
Cable length: 2 m.

Code			
150009		1	–

150

tech. broch. 01143

Immersion probe for regulator or thermostat
257 series and for regulator 1520 series.
Cable length: 2 m.

Code			
150006		1	–

150

tech. broch. 01143

Pocket for immersion probe
code 150006.

Code			
150029	1/4" M	1	–

HEAT METER

75525 CONTECA

tech. broch. 01146

Direct heat metering with local LCD reading or centralised reading with controller code 755010 or interface code 755055, for solar thermal systems.

Max. working pressure: 10 bar.
Temperature range: 5–120°C.
Max. percentage of glycol: 50%.

The CONTECA module is supplied complete with:
- pair of temperature probes with immersion pockets,
- Y pockets for immersion probes,
- water meter, with pulse output (max. temperature 120°C),
- electronic integrator with LCD.

Supply 24 V (ac) 50 Hz - 1 W.
Fitted for transmission in RS485 Bus mode.
Conformity to EN 1434-1.

Code	Conn.	Meas. type	Q_{nom} m³/h		
755254	1/2″	single jet	1,5	1	–
755255	3/4″	single jet	2,5	1	–
755256	1″	single jet	3,5	1	–
755257	1 1/4″	multi jet	6	1	–
755258	1 1/2″	multi jet	10	1	–
755259	2″	multi jet	15	1	–

BALANCING VALVE WITH FLOW METER

258

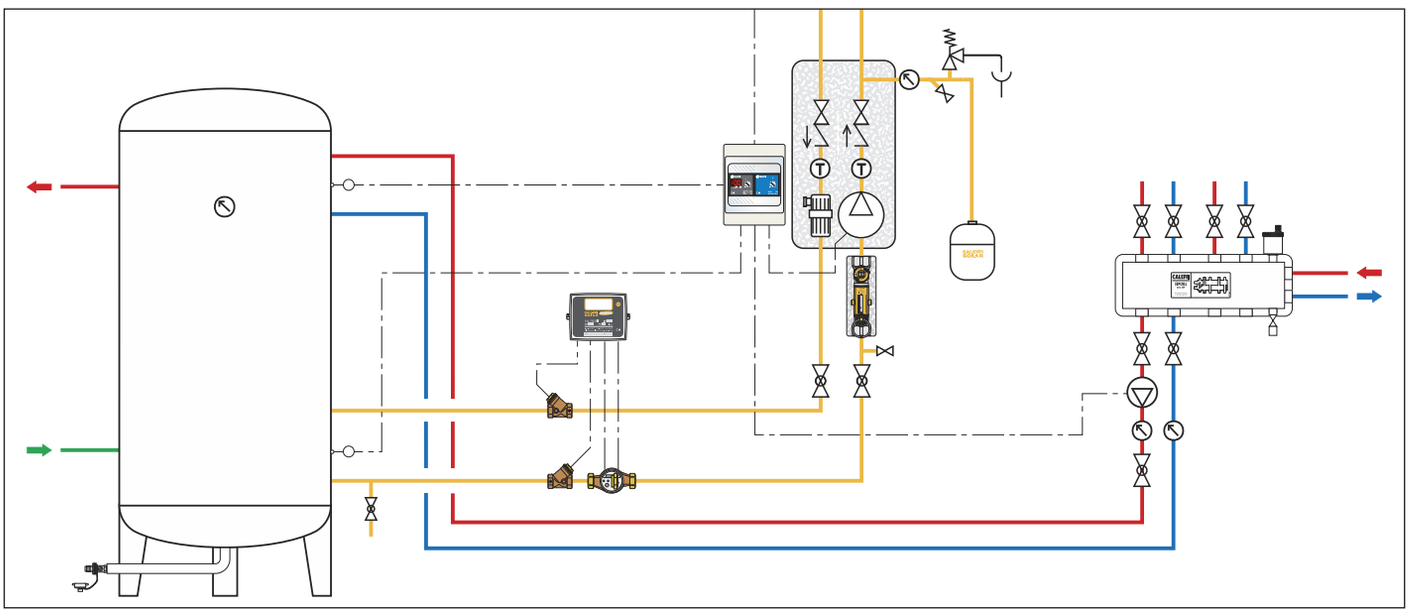
tech. broch. 01148

Balancing valve with flow meter, for solar thermal systems.
Direct reading of flow rate.
Brass valve body and flow meter.
Chrome plated.
Ball valve for flow rate adjustment.
Graduated scale flow meter with magnetic movement flow rate indicator.

With insulation.
Max. working pressure: 10 bar.
Temperature range: -30–130°C.
Max. percentage of glycol: 50%.
PATENT PENDING.

Code		Flow rate range (l/min)		
258503	3/4″	2– 7	1	5
258533	3/4″	3–10	1	5
258523	3/4″	7–28	1	5
258603	1″	10–40	1	5

Application diagram of heat meter 75525 series and balancing valve 258 series



MOTORISED BALL DIVERTER VALVE

Operating time 10 s

6443 tech. broch. 01132

Motorised three-way ball diverter valve.
Max. working pressure: 10 bar.
Max. Δp: 10 bar.
Temperature range: -5–110°C.

Complete with actuator with 3-contact control.
With auxiliary microswitch.
Supply: 230 V (ac) or 24 V (ac).
Power consumption: 8 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem).
IP 40 (horizontal stem).
Operating time: 10 s (90° rotation).
Cable length: 100 cm.

Code		Supply voltage V	Kv (m³/h)		
644346	1/2″	230	3,9	1	5
644356	3/4″	230	3,9	1	5
644357	3/4″	230	8,6	1	5
644366	1″	230	9	1	5
644348	1/2″	24	3,9	1	5
644358	3/4″	24	3,9	1	5
644359	3/4″	24	8,6	1	5
644368	1″	24	9	1	5

THERMOSTATIC DIVERTER VALVE

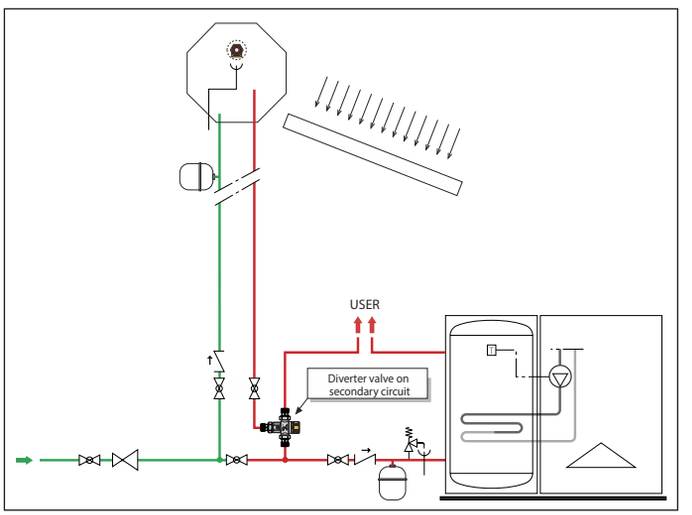
NEW

2620

Thermostatic diverter valve for solar thermal systems.
Brass body.
Chrome plated.
Max. working pressure: 10 bar.
Factory setting: 45°C.
Max. inlet temperature: 100°C.

Code		Temperature adjustment	Kv (m³/h)		
262040	1/2″	35–55°C	1,5	1	10
262050	3/4″	35–55°C	1,7	1	10

Application diagram of 2620 series thermostatic diverter valve



THERMOSTATIC MIXING VALVES

2521 tech. broch. 01127

Adjustable thermostatic mixing valve for solar thermal systems.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 14 bar.
Max. inlet temperature: 100°C.

Code		Temperature adjustment	Kv (m³/h)		
252140	1/2″	30–65°C	2,6	1	10
252150	3/4″	30–65°C	2,6	1	10

2521 tech. broch. 01127

Adjustable thermostatic mixing valve, **with check valves**, for solar thermal systems.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 14 bar.
Max. inlet temperature: 100°C.

Code		Temperature adjustment	Kv (m³/h)		
252153	3/4″	30–65°C	2,6	1	10

2521 tech. broch. 01257

Thermostatic mixing valve for centralised solar thermal systems.
CR dezincification resistant alloy body.
Male union connections.
Antiscale inner regulator in technopolymer.
Max. working pressure: 14 bar.
Max. inlet temperature: 100°C.

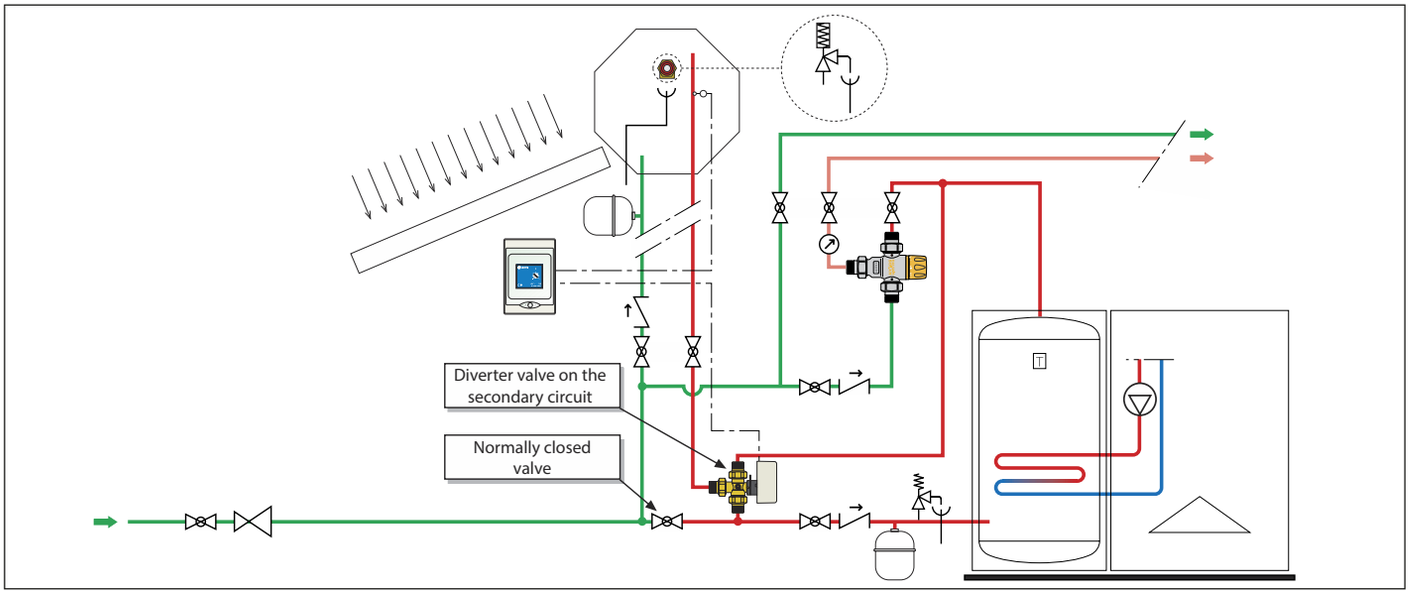
Code		Temperature adjustment	Kv (m³/h)		
252151	3/4″	35–65°C	4,5	1	10
252160	1″	35–65°C	5,5	1	–
252170	1 1/4″	35–65°C	7,6	1	–
252180	1 1/2″	35–65°C	11,0	1	–
252190	2″	35–65°C	13,3	1	–

2523 tech. broch. 01129

Thermostatic mixing valve with interchangeable cartridge for solar thermal systems.
Brass body.
Male union connections.
Max. working pressure: 14 bar.
Max. inlet temperature: 110°C.

Code		Temperature adjustment	Kv (m³/h)		
252340	1/2″	30–65°C	4,0	1	10
252350	3/4″	30–65°C	4,5	1	10
252360	1″	30–65°C	6,9	1	–
252370	1 1/4″	30–65°C	9,1	1	–
252380	1 1/2″	35–65°C	14,5	1	–
252390	2″	35–65°C	19,0	1	–

Application diagram of thermostatic mixing valve 2521 series



ANTI-SCALD THERMOSTATIC AND TEMPERING MIXING VALVES

2527

tech. broch. 01165

Adjustable anti-scald thermostatic mixing valve, **with check valves and strainers**, for solar thermal systems.
High thermal performance device **with anti-scald safety function**.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Performance to standards NF 079 doc. 8, EN 15092, EN 1111, EN 1287.
Max. working pressure: 10 bar.
Max. inlet temperature: 100°C.

Code		Temperature adjustment	Kv (m³/h)		
252714	1/2"	35–55°C	1,5	1	10
252713	3/4"	35–55°C	1,7	1	10

2522

High performance adjustable anti-scald tempering valve **with check valves and strainers** at the inlets.
Suitable for solar and instantaneous hot water systems.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 100°C.
Certified to AS 4032.2.

Code		Temperature adjustment	Kv (m³/h)		
252212HP AUS	DN 15	35–55°C	1,5	1	10
252219HP AUS	DN 20	35–55°C	1,7	1	5

NEW

2522

Adjustable thermostatic mixing valve **with check valves and strainers**, for solar thermal systems.
Enhanced thermal performance device **with anti-scald safety function**.
With override function for thermal disinfection.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 100°C.
Certified to AS 4032.1.

Code		Temperature adjustment	Kv (m³/h)		
252212TMF AUS	DN 15	30–50°C	1,5	1	10
252219TMF AUS	DN 20	30–50°C	1,7	1	6

2522

Adjustable thermostatic mixing valve **with check valves and strainers**, for solar thermal systems.
Enhanced thermal performance device **with anti-scald safety function**.
CR dezincification resistant alloy body.
Chrome plated.
Male union connections.
Max. working pressure: 1400 kPa.
Max. inlet temperature: 100°C.
Certified to AS 4032.1.

Code		Temperature adjustment	Kv (m³/h)		
252212TM AUS	DN 15	30–50°C	1,5	1	10
252219TM AUS	DN 20	30–50°C	1,7	1	10
252225TM AUS	DN 25	30–50°C	3,0	1	5

SOLAR STORAGE-TO-BOILER CONNECTION KIT

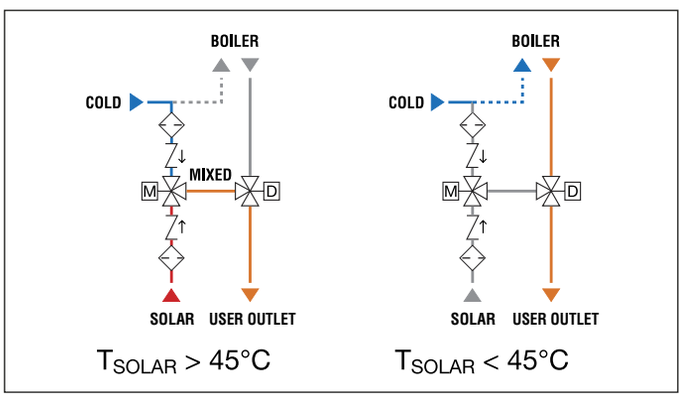
264
SOLARNOCAL

tech. broch. 01163

Function

A thermostatic anti-scald mixing valve, at the kit inlet, controls the temperature of the water coming from the solar hot water storage.
The thermostat, by means of the probe positioned on the hot water flow from the solar hot water storage, controls the diverter valve at the kit outlet. Depending on the temperature setting, the valve diverts the water towards the user circuit or activates the boiler circuit, **without thermal integration**.

Hydraulic diagrams



Solar storage-to-boiler connection kit, **without thermal integration**.
Consisting of:
- thermostatic anti-scald mixing valve, adjustable with knob, for solar thermal systems. Complete with strainers and check valves at the inlets;
- diverter valve with three-contact actuator, with auxiliary microswitch;
- thermostat with probe for solar thermal system, for operating diverter valve. Display showing temperature.
- pre-formed **shell protective cover**.

Diverter-to-mixing valve coupling with adjustable position of the inlet and outlet connections.

Mixing valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Adjustment temperature range: 35–55°C.
Max. inlet temperature: **100°C**.

Diverter valve
Brass body.
Max. working pressure: 10 bar.
Temperature range: -5–110°C.

Actuator
Three-contact type.
Supply: 230 V (ac).
Power consumption: 8 VA.
Auxiliary microswitch contact rating: 0,8 A (230 V).
Ambient temperature range: 0–55°C.
Protection class: IP 44 (vertical stem).
IP 40 (horizontal stem).
Operating time: 10 s.
Cable length: 1 m.

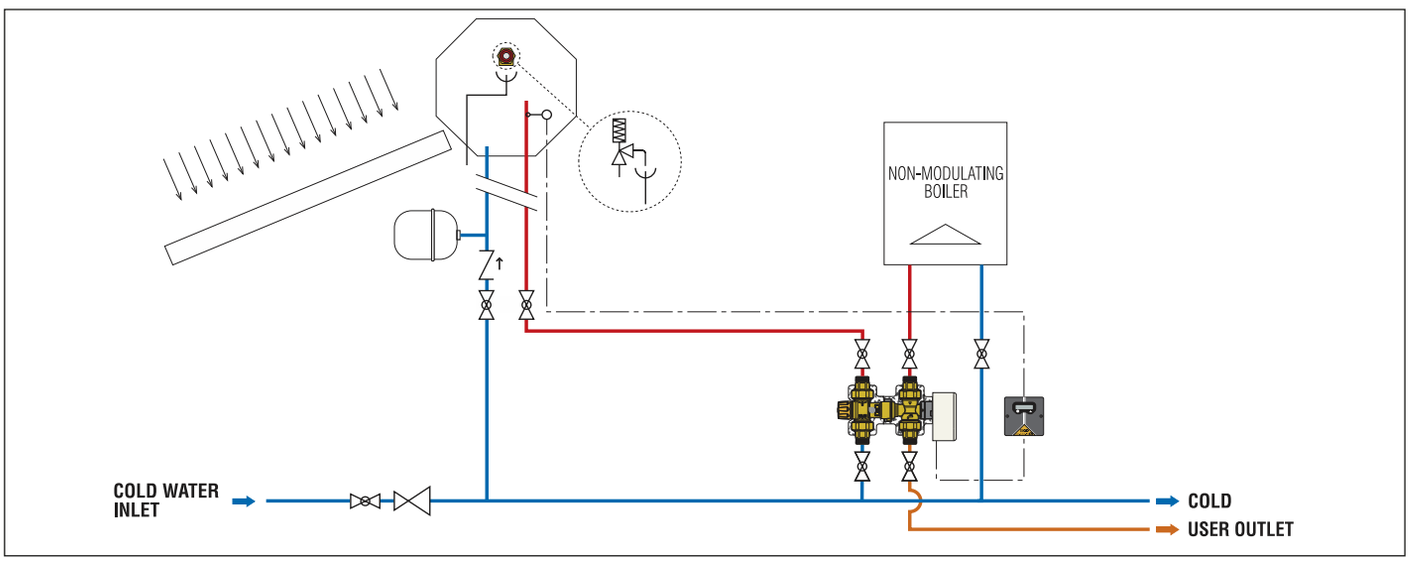
Thermostat with probe
Supply: 230 V (ac).
Adjustable temperature range: 25–50°C.
Factory setting: 45°C.
Box protection class: IP 54.

Code			
264352	3/4"	1	–

Spare parts for connection kit 264 and 265 series.

Code	
F29399	actuator
F29488	Ø 6 mm probe
257004	stainless steel pocket for Pt1000 probe

Application diagram of SOLARNOCAL kit 264 series



SOLAR STORAGE-TO-BOILER CONNECTION KIT

265
SOLARINCAL

tech. broch. 01163

Function

The thermostat, by means of the probe positioned on the hot water flow from the solar hot water storage, controls the diverter valve at the kit inlet. Depending on the temperature setting, the valve diverts the water towards the user circuit or the boiler circuit, **with thermal integration**.
A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls the temperature of the water sent to the user.

Solar storage-to-boiler connection kit, **with thermal integration**.
Consisting of:
- thermostatic anti-scald mixing valve, adjustable with knob, for solar thermal systems. Complete with strainers and check valves at the inlets;
- diverter valve with three-contact actuator, with auxiliary microswitch;
- thermostat with probe for solar thermal system, for operating diverter valve. Display showing temperature.
- pre-formed **shell protective cover**.

Diverter-to-mixing valve coupling with adjustable position of the inlet and outlet connections.

Mixing valve
For technical details see 264 series.

Diverter valve
For technical details see 264 series.

Actuator
For technical details see 264 series.

Thermostat with probe
For technical details see 264 series.

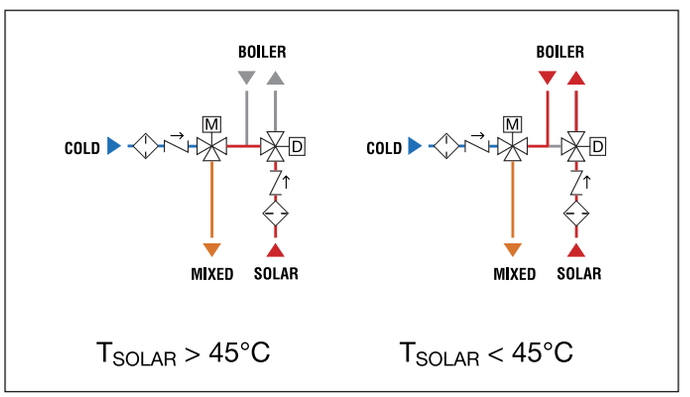
Code			
265352	3/4"	1	–
F29384	mixing valve spare for 262 and 265 series	1	–

265

Thermostat with display showing storage temperature.
For devices 264 and 265 series.
Supply: 230 V (ac).
Adjustable temperature range: 25–50°C.
Factory setting: 45°C.
Box protection class: IP 54.

Code			
265001		1	–

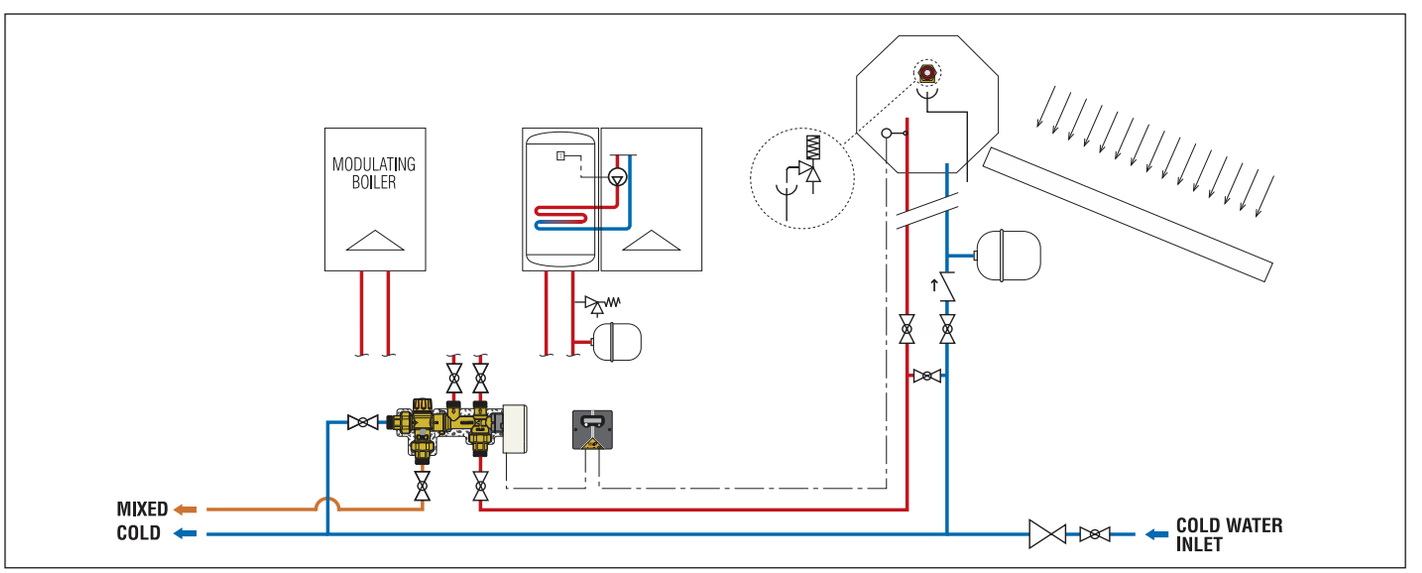
Hydraulic diagrams



Accessories for connection kit 264 and 265 series.

Code	
264359	kit 264 series without thermostat and probe
265359	kit 265 series without thermostat and probe
F29525	box with switching 3 contact relay
F29466	Ø 6 mm contact probe
F29467	pocket for Ø 15 mm probe

Application diagram of SOLARINCAL kit 265 series



SOLAR STORAGE-TO-BOILER THERMOSTATIC CONNECTION KIT

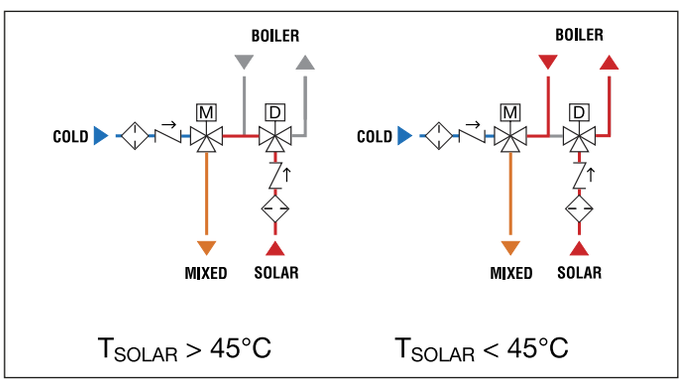
262
SOLARINCAL-T

tech. broch. 01164

Function

A thermostatic diverter valve, at the kit inlet, receives hot water coming from the solar water storage.
Depending on the temperature setting, the valve diverts the water automatically and in a proportional manner towards the user circuit or the **boiler with storage circuit**, **with thermal integration**.
The valve modulates the flow rates to optimise the energy contained in the solar storage and reduces boiler operation times to a minimum.
A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls and limits the temperature of the water sent to the user.

Hydraulic diagrams

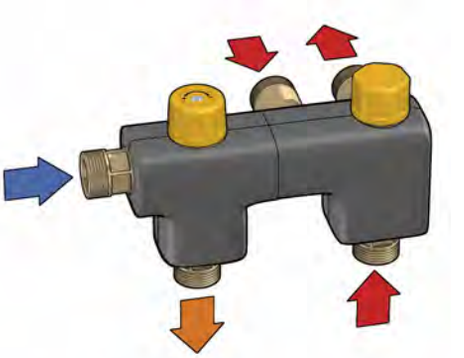


Solar storage-to-boiler connection kit, **with thermal integration**.
Consisting of:
- thermostatic anti-scald mixing valve, adjustable with knob, for solar thermal systems. Complete with strainers and check valves at the inlets.
- thermostatic diverter valve;
- pre-formed **shell protective cover**.

Diverter-to-mixing valve coupling with adjustable position of the inlet and outlet connections.

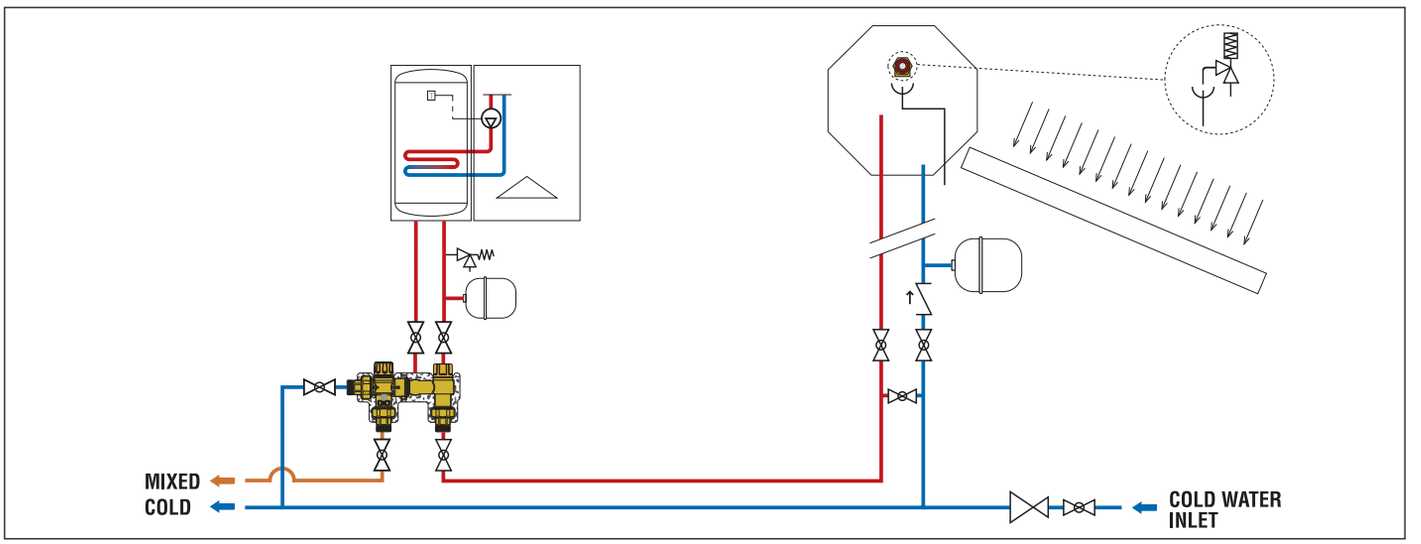
Mixing valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Adjustment temperature range: 35–55°C.
Max. inlet temperature: **100°C**.
Performance to standards NF 079 doc. 8, EN 15092, EN 1111, EN 1287.

Diverter valve
Brass body.
Max. working pressure: 10 bar.
Factory setting: 45°C.
Max. inlet temperature: **100°C**.



Code			
262350	3/4"	1	–
F29384	mixing valve spare for 262 and 265 series	1	–

Application diagram of SOLARINCAL-T kit 262 series



SOLAR STORAGE-TO-BOILER THERMOSTATIC CONNECTION KIT

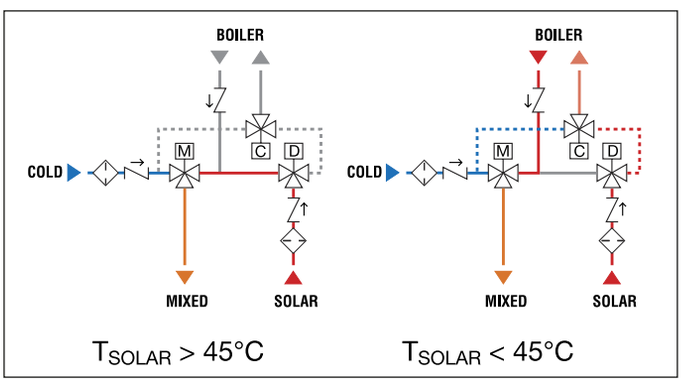
263
SOLARINCAL-T *PLUS*

tech. broch. 01164

Function

A thermostatic diverter valve, at the kit inlet, receives hot water coming from the solar water storage. Depending on the temperature setting, the valve diverts the water automatically and proportionally towards the user circuit or the **instantaneous boiler circuit**, **with thermal integration**. The valve modulates the flow rates to optimise the energy contained in the solar storage and reduces boiler operation times to a minimum.
A specific thermostatic control device limits the boiler inlet temperature to prevent it being switched on and off too often, which leads to hunting and irregular operation.
A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls the temperature of the water sent to the user.

Hydraulic diagrams

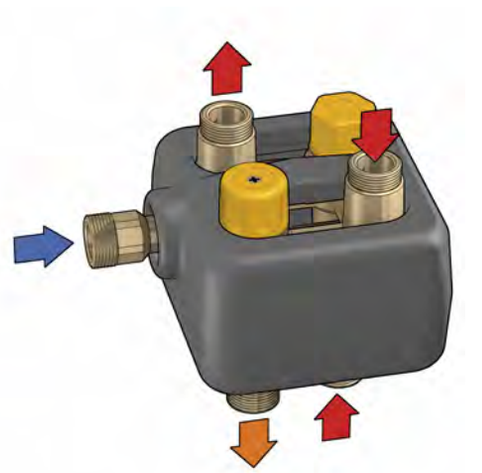


Solar storage-to-boiler connection kit, **with thermal integration**.
Consisting of:
- thermostatic anti-scald mixing valve, adjustable with knob, for solar thermal systems. Complete with strainers and check valves at the inlets;
- thermostatic diverter valve;
- thermostatic control device;
- pre-formed **shell protective cover**.

Mixing valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Adjustment temperature range: 35–55°C.
Max. inlet temperature: **100°C**.
Performance to standards NF 079 doc. 8, EN 15092, EN 1111, EN 1287.

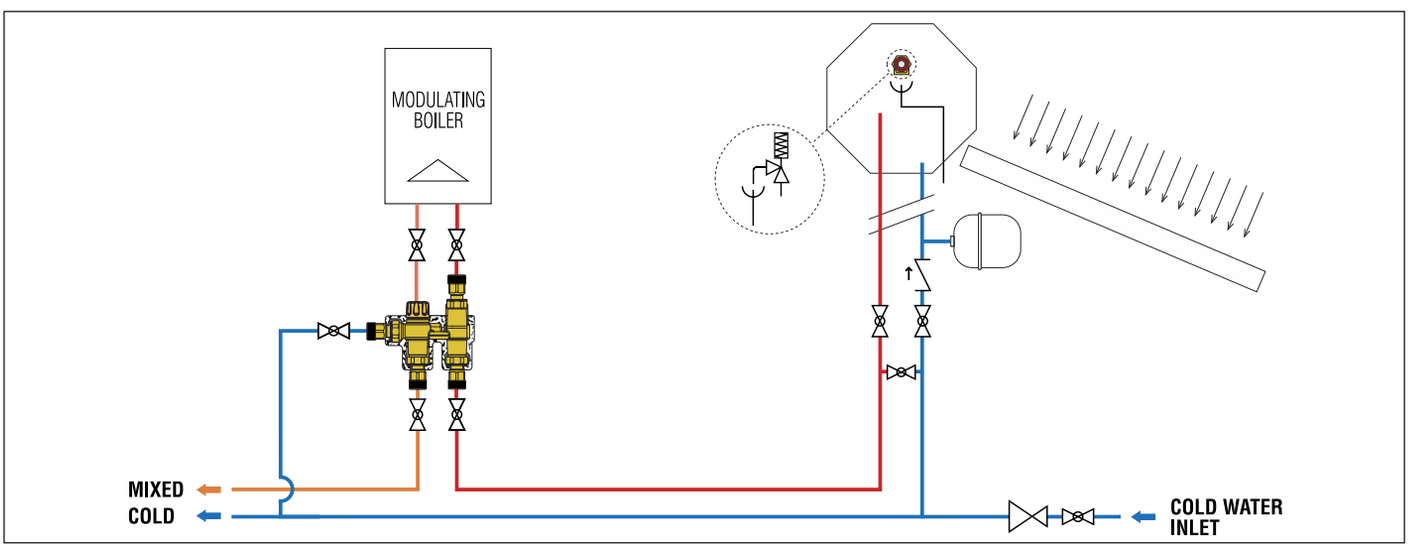
Diverter valve
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Factory setting: 45°C.
Max. inlet temperature: **100°C**.

Control device
CR dezincification resistant alloy body.
Factory setting: 30°C.
Max. inlet temperature: 85°C.



Code			
263350	3/4"	1	–

Application diagram of SOLARINCAL-T Plus kit 263 series



TEMPERATURE AND PRESSURE RELIEF VALVE

309

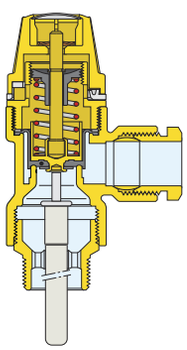
tech. broch. 01147

Temperature and pressure relief valve.
For solar thermal systems, to protect the hot water storage.
CR dezincification resistant alloy body.
Chrome plated.
Setting temperature: 90°C.
Discharge rating:
1/2" x Ø 15: 10 kW.
3/4" x Ø 22: 25 kW.
Settings: 6 - 7 - 10 bar.
Settings certified to EN 1490: 7 - 10 bar.

Code				
309461	1/2" M x Ø 15	6 bar	1	20
309471	1/2" M x Ø 15	7 bar	1	20
309401	1/2" M x Ø 15	10 bar	1	20
309561	3/4" M x Ø 22	6 bar	1	20
309571	3/4" M x Ø 22	7 bar	1	20
309501	3/4" M x Ø 22	10 bar	1	20

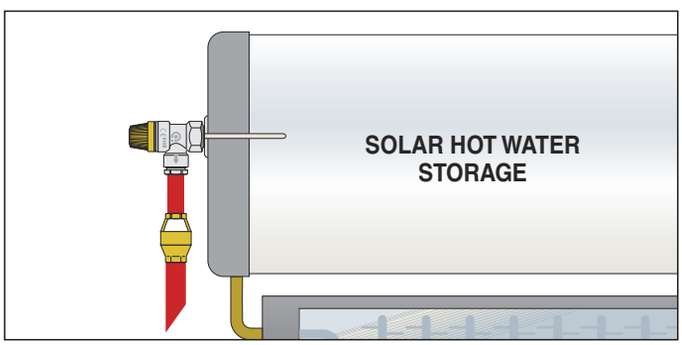
Function

The temperature and pressure relief valve controls and limits the temperature and pressure of the hot water contained in a solar domestic water storage heater and prevents it to reach temperatures over 100°C, with the formation of steam.
On reaching the settings, the valve discharges a sufficient amount of water into the atmosphere so that the temperature and pressure return within the system's operating limits.
As the temperature and pressure decrease, the opposite action occurs with the valve subsequently reclosing within the set tolerances.



Product certification in accordance with European Standard EN 1490
European Standard EN 1490: 2000, entitled "*Building valves - Combined temperature and pressure relief valves – Tests and requirements*", describes the constructional and performance specifications that TP relief valves must have. Caleffi 309 series TP relief valves for solar systems are certified by Buildcert (UK) to comply with the requirements of the European Standard EN 1490.

Application diagram of valve 309 series on a solar hot water storage



ANTI-FREEZE SAFETY DEVICE

603
ICECAL®

Anti-freeze safety device.
For solar thermal systems, to protect the hot water storage.
CR dezincification resistant alloy body.
Max. working pressure: 10 bar.
Ambient temperature range: -30–90°C.
Opening temperature: 3°C.
Closing temperature: 4°C.

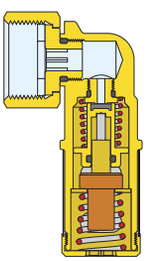
S012
C of C 40112

Code			
603040	1/2" F with nut	1	50

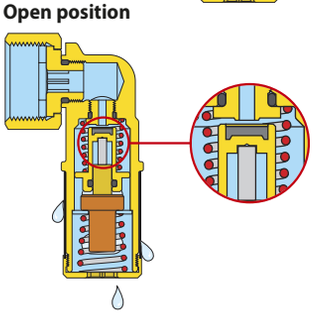
Function

The anti-freeze safety device prevents ice build-up in domestic water circuits, thereby avoiding potential damage to storage tanks and pipes
When the minimum ambient intervention temperature is reached, it automatically opens a minimum passage of water toward the drain, enabling a small continuous flow of water at the inlet; this prevents any risk of freezing.
When the ambient temperature increases or in the event of contact with warmer water, the opposite action occurs, causing the device to shut off and circuit normal operating conditions to be restored.

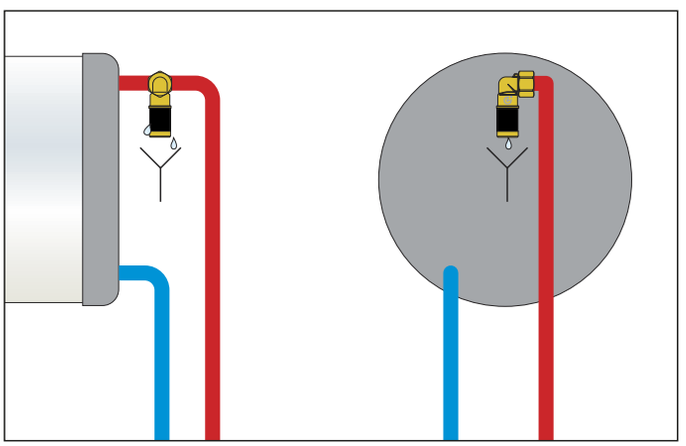
Closed position



Open position

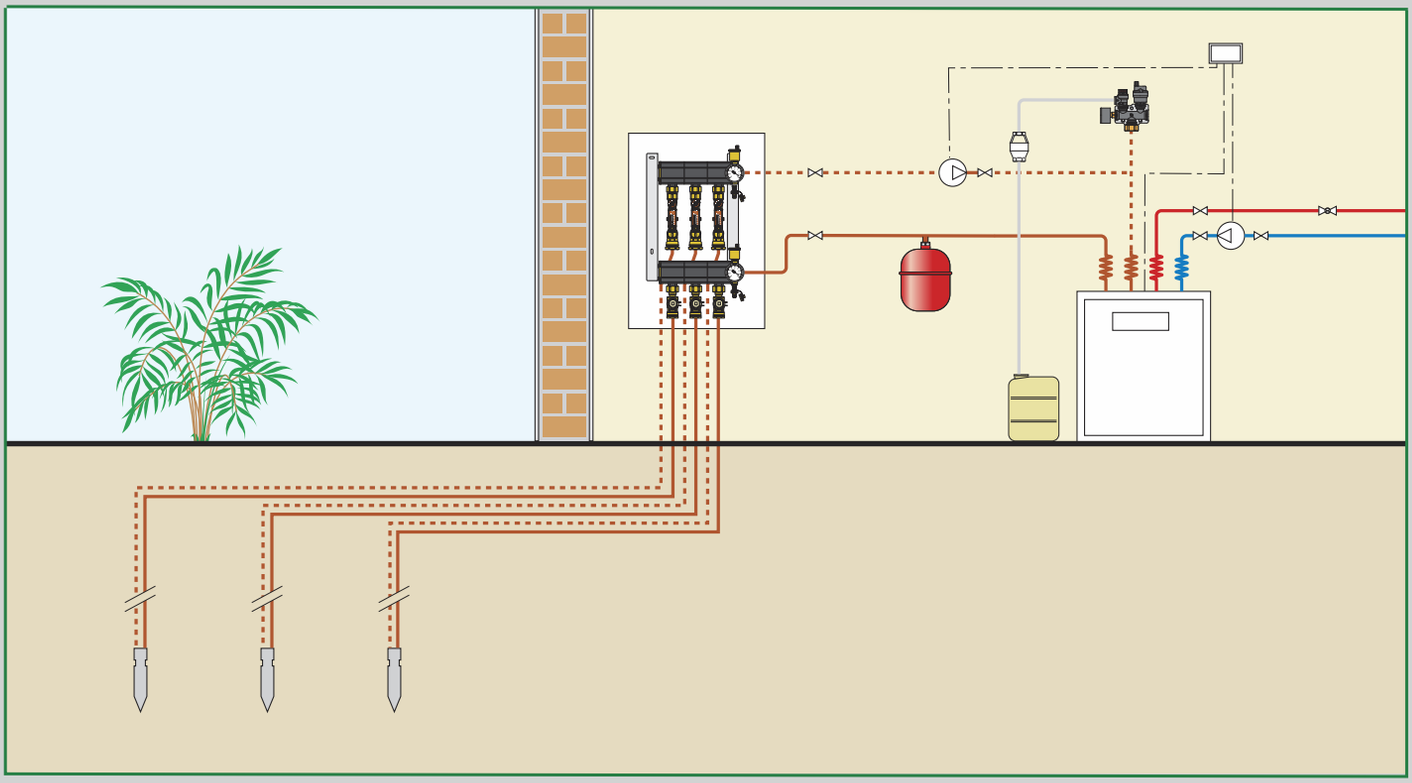


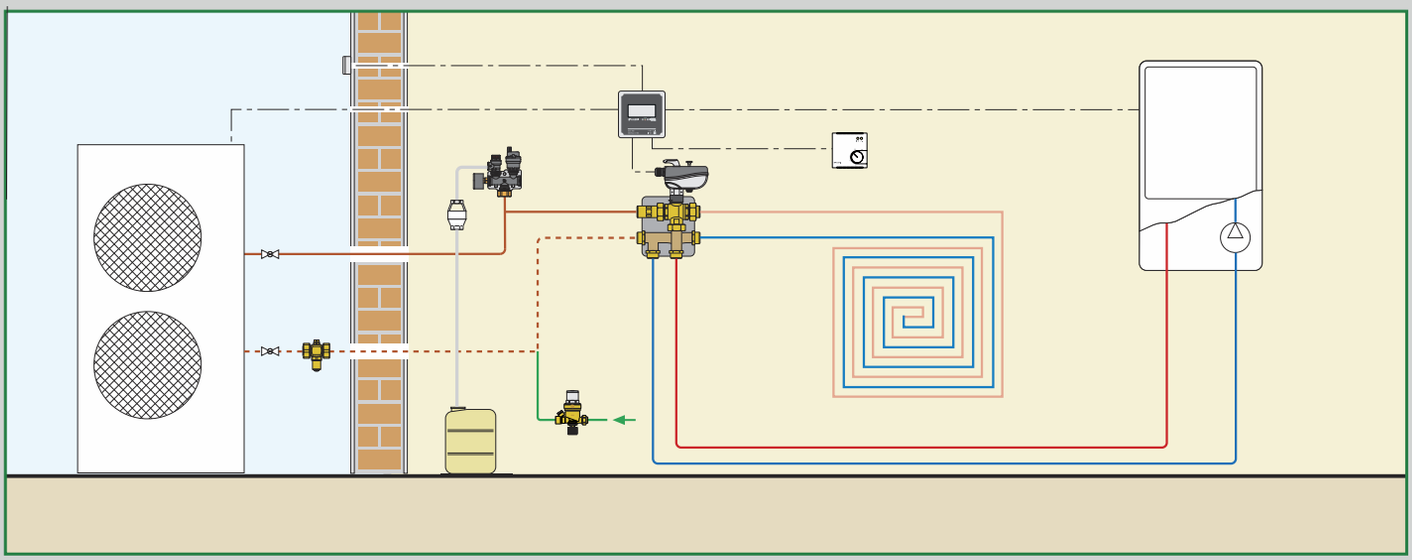
Application diagram of device 603 series on a domestic water circuit



COMPONENTS FOR HEAT PUMP SYSTEMS

This diagram is just an indication





Integration unit, HYBRICAL®
Anti-freeze protection
Preassembled geothermal manifold
Modular geothermal manifold
Shut-off and balancing devices

CALEFFI GEO

The products in the CALEFFI GEO® series have been specifically designed for use in heat pump systems. In **ground source heat pumps** a mixture of water and anti-freeze fluid is generally used to protect against freezing temperatures.
The components are made with high-performance materials for this type of applications.

ANTI-FREEZE PROTECTION

109

Anti-freeze kit.
Max. hydraulic test pressure: 10 bar.
Max. working pressure: 10 bar.
Temperature range: 0–65°C.
Ambient temperature range: -20–60°C.

The unit is consisting of:
- automatic air vent.
- check valve, 1″ male connections.
- anti-freeze valve, 1″ male connections.
- control unit.
- minimum temperature thermostat.
- NC solenoid valve, 230 V - 50 Hz.

CE

Code	Conn.		
109611	1″	1	–

108

Anti-freeze valve. Brass body.
Max. working pressure: 10 bar.
Temperature range: 0–65°C.
Ambient temperature range: -30–60°C.
Opening temperature: 3°C.
Closing temperature: 4°C.

ACS

Code	Conn.		
108601	1″	1	25
108701	1 1/4″	1	20
108801	1 1/2″	1	20

Operating principle

The anti-freeze protection unit code 109611 can be installed when the heat pump has an internal circulator.

The system actuates in the event of failure of electric supply to the heating system or should the heat pump malfunction.

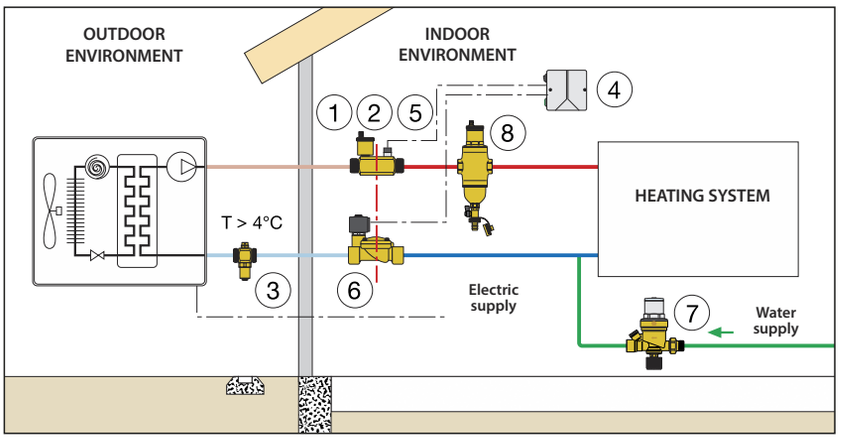
In the event of a electric supply failure, the system separates the internal part of the system from the outside part at the level of the check valve (2) and the normally-closed solenoid valve (6).

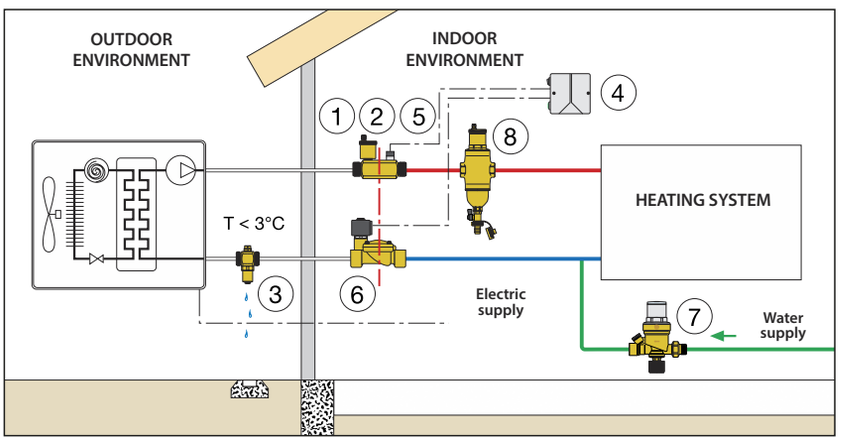
If the water temperature inside the pipes remains above 4°C, the anti-freeze valve obturator stays closed and the pipe remains in pressure.

When the water temperature in the pipes reaches 4°C, the thermostat in the anti-freeze valve (3) allows the obturator to open and drain the water in the outside part of the pipes.

When electric supply returns, the solenoid valve opens, the filling unit (7) recharges the system to the nominal pressure setting and the anti-freeze valve closes, allowing circulation in the system to restart: the air vent (1) and deaerator-dirt separator (8) remove any excess air.

In the event of a heat pump failure, with subsequent drop in the water temperature within the system (the circulation pump keeps running but there is no longer any heat exchange in the machine), the safety thermostat (5) would operate.
When the water reaches a temperature of 10°C, the thermostat (5) actuates and via the regulator (4) stops the electric supply to the solenoid valve, thereby triggering the procedure described above for electric supply failures.





INTEGRATION UNIT

106 HYBRICAL®

tech. broch. 01233

Heat pump-boiler integration unit.
With insulation.
Consisting of:
- diverter valve,
- connection kit,
- electronic regulator,
- outside probe.

Supply: 230 V (ac).
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Medium: water, glycol solutions.
Max. percentage of glycol: 50%.

Code	Conn.		
106160	1″	1	–

106 HYBRICAL®

tech. broch. 01233

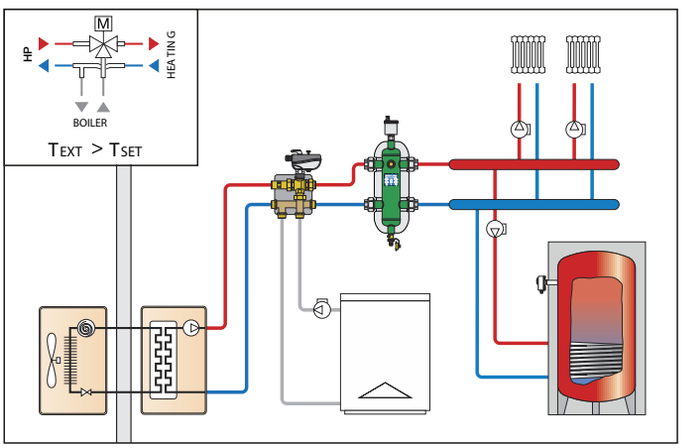
Heat pump-boiler integration unit.
With insulation.
Consisting of:
- diverter valve,
- electronic regulator,
- outside probe.

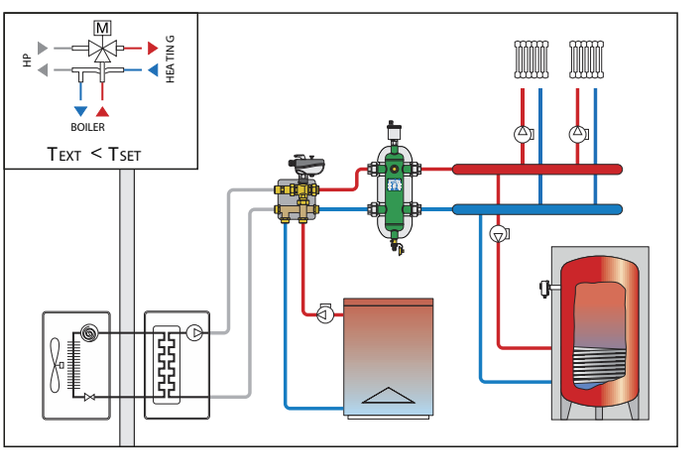
Supply: 230 V (ac).
Max. working pressure: 16 bar.
Temperature range: -10–110°C.
Medium: water, glycol solutions.
Max. percentage of glycol: 50%.

Code	Conn.		
106170	1 1/4″	1	–
106180	1 1/2″	1	–
106190	2	1	–

Operating principle

The integration unit is composed of a diverter valve and manifold kit combined to a digital regulator equipped with outside probe.
The regulator receives the temperature signal from the outside probe and, when the minimum pre-set temperature value is reached, activates the diverter valve towards the boiler circuit. When the outside air temperature rises above the pre-set temperature value, the valve is diverted again towards the heat pump system.





DIVERTER KIT

106 HYBRICAL®

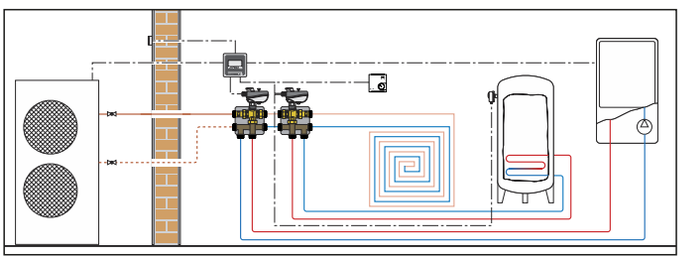
Diverter kit for heat pump.
With insulation.
Consisting of:
- diverter valve,
- connection kit.

Supply: 230 V (ac).
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Medium: water, glycol solutions.
Max. percentage of glycol: 50%.

Code	Conn.		
106060	1″	1	–

Operating principle

The diverter kit allows to easily connect the 3 circuits together (2 inlets and 1 outlet) without having to overcome pipes.
The diverter valve has very low head losses, in relation to the rated flow rates normally used, and features short operating times: it allows therefore a fast system commissioning and prevents any water-hammer.
The valve is coupled to an actuator fitted with microswitches that can be used to activate and deactivate devices according to the working position of the valve.



INSTRUMENT HOLDER IN COMPOSITE MATERIAL

305

Instrument holder in composite material for heating systems.
Equipped with air vent, safety relief valve in composite material and pressure gauge.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

Code			
305663	1″	1	–

305

Instrument holder in composite material for heating systems.
Equipped with air vent, brass safety relief valve and pressure gauge.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

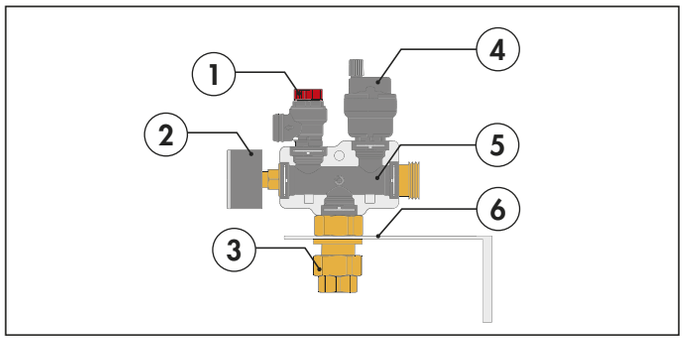
Code			
305572	3/4″ 2,5 bar TÜV	1	–
305671	1″ 1,8 bar	1	–
305673	1″ 3 bar NF	1	–

305

Instrument holder kit in composite material for heating systems.
Equipped with air vent, safety relief valve in composite material, pressure gauge, automatic shut-off cock for expansion vessel and fixing bracket.
With insulation.
Temperature range: 5–90°C.
Up to 50 kW.

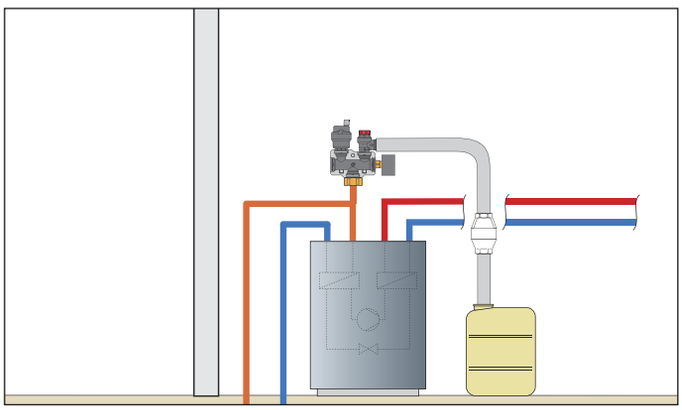
Code			
305503	3/4″	1	–

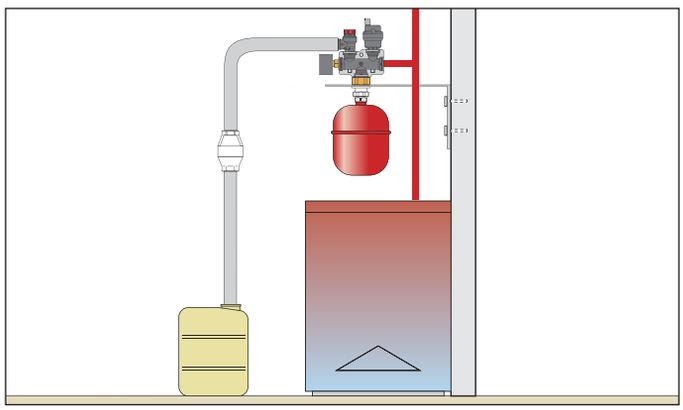
Characteristic components

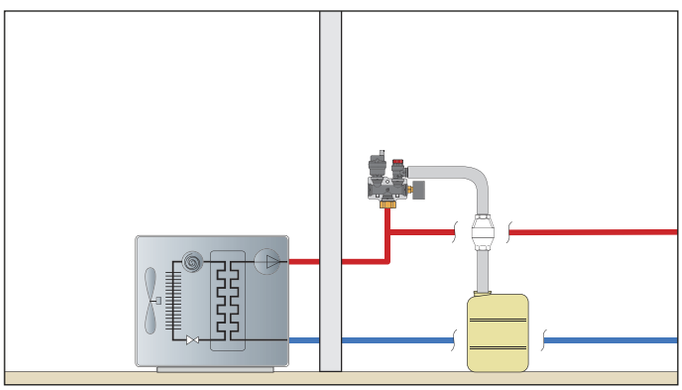


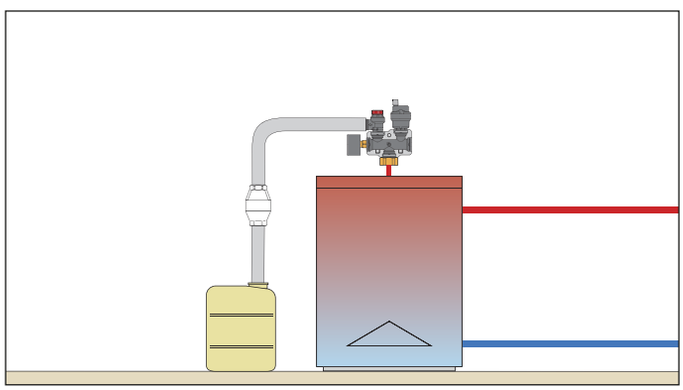
The unit is consisting of:

1 - Safety valve
2 - Pressure gauge
3 - Shut-off cock
4 - Air vent
5 - Polymer manifold
6 - Fixing bracket









MULTIFUNCTION DEVICE IN COMPOSITE WITH DIRT SEPARATOR AND STRAINER

5453

tech. broch. 01258

DIRTMAGPLUS ®

Multifunction device
with dirt separator and strainer.
Specific for the complete cleaning of the hydraulic circuit, to protect continuously generator and components.
Tecnopolimer body.
Dirt separator with tecnopolimer internal element, **with magnet**.
Two inspectable strainers with stainless steel mesh:
1 for initial cleaning (blue colour) already installed,
1 for maintenance (grey colour) in package.
Shut-off valve with nut, brass body.
Adjustable for horizontal, vertical or 45° pipes.
Female connections.
Drain cock with hose connection.

Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545375	3/4″	1	–
545376	1″	1	–

5453

tech. broch. 01258

DIRTMAGPLUS ®

Multifunction device
with dirt separator and strainer.
Specific for the complete cleaning of the hydraulic circuit, to protect continuously generator and components.
Tecnopolimer body.
Dirt separator with tecnopolimer internal element, **with magnet**.
Two inspectable strainers with stainless steel mesh:
1 for initial cleaning (blue colour) already installed,
1 for maintenance (grey colour) in package.
Shut-off valve with nut, brass body.
Adjustable for horizontal, vertical or 45° pipes.
Ø 22 and Ø 28 with compression ends.
Drain cock with hose connection.

Max. working pressure: 3 bar.
Temperature range: 0–90°C.

PCT INTERNATIONAL APPLICATION PENDING

Code			
545372	Ø 22	1	–
545373	Ø 28	1	–

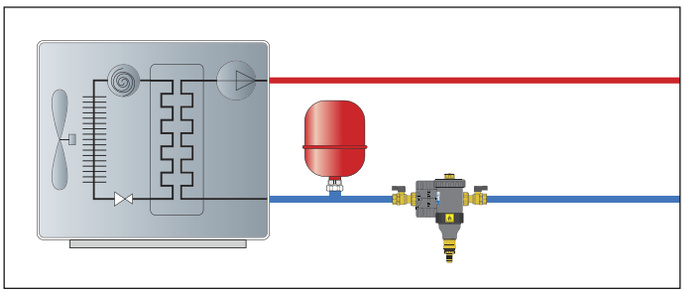
Cartridge strainer

The high-capacity strainer cartridge consists of two parts: an outer body with stainless steel mesh and a specially shaped internal element for collecting impurities.
The complete collection of impurities is always optimal, whether the installation is vertical, horizontal or 45°.

Strainer accessories.

Code			
F49474/BL	first cleaning strainer (blue colour)	1	–
F49474/GR	maintenance strainer (grey colour)	1	–

Application diagram of multifunction device 5453 series



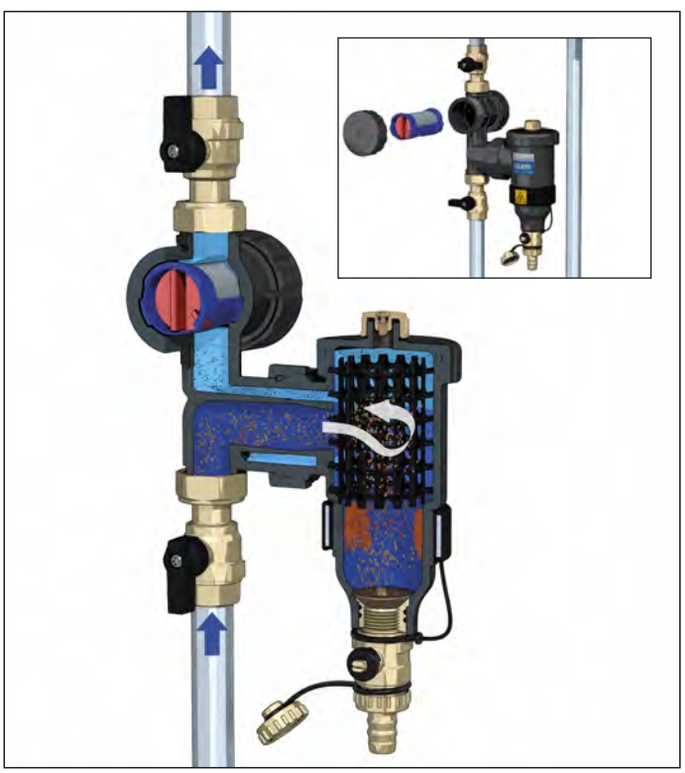
Problems caused by impurities in hydraulic circuits

The components of a heating and air conditioning system are exposed to degradation caused by the impurities contained in the system's circuit. If the impurities in the thermal medium are not removed, they can impair operation of the units or components, such as boilers or heat exchangers, especially in the commissioning stage, already from the initial passage. This latter problem must not be underestimated because boiler manufacturers will frequently reject warranty claims if their product is not adequately protected by a strainer from the time of commissioning onwards.

Operating principle

The multifunction device is obtained by coupling a dirt separator and a cartridge strainer arranged in series.
The water circulating in the system flows, in sequence, first through the dirt separator and then through the cartridge strainer.

1. Elimination of particles even of small diameters (sizes of a few hundredths of a millimetre) is handled by the dirt separator due to the effect of collision of the particles with the internal element and **gravity decantation of sludge** in the collection chamber. This result can be obtained only after some circulations of the medium and hence during operation of the system in steady-state conditions.
2. The total elimination of particles of diameters measured in tenths of a millimetre, right from **the first passage of the medium** (system commissioning), is guaranteed by the mesh strainer, which mechanically intercepts impurities carried by the thermal medium.



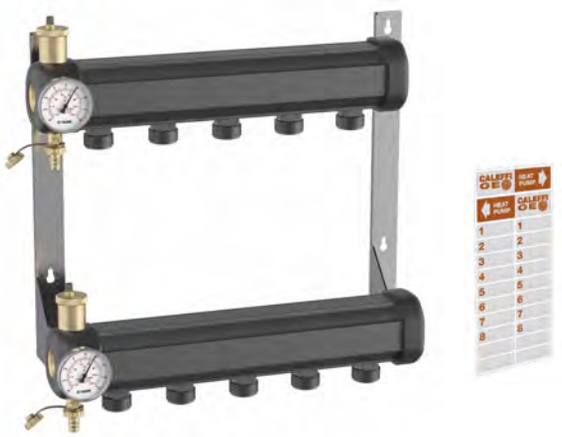
PREASSEMBLED GEOTHERMAL DISTRIBUTION MANIFOLD

110

tech. broch. 01221

Preassembled geothermal manifold.
Complete with:
- automatic air vents;
- temperature gauges Ø 80 mm;
- fill/drain cocks;
- flow and return manifolds in polymer;
- blind end plugs with insulation;
- stainless steel wall brackets;
- set of labels for direction of flow and circuit identification;
- wall fixing anchors.

Max. working pressure: 6 bar.
Max. hydraulic test pressure: 10 bar.
Temperature range: -10–60°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Manifold DN 50.
Max. flow rate: 7 m^3/h.
End connection: 1 1/4".
Outlet connection: 42 p.2,5 TR.
Outlet centre distance: 100 mm.
Outlet connections with mechanical seal for shut-off valves 111 series, balancing valves 112 series and flow meters 113 series.



Code			
1107B5	2 circuits	1	–
1107C5	3 circuits	1	–
1107D5	4 circuits	1	–
1107E5	5 circuits	1	–
1107F5	6 circuits	1	–
1107G5	7 circuits	1	–
1107H5	8 circuits	1	–

For more than 8 outlet circuits, see the modular manifold

MODULAR GEOTHERMAL DISTRIBUTION MANIFOLD

110

tech. broch. 01221

Modular manifold single module in polymer.

Max. working pressure: 6 bar.
Max. hydraulic test pressure: 10 bar.
Working temperature range: -10–60°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Manifold DN 50.
Outlet connection: 42 p.2,5 TR.
Outlet connections with mechanical seal for shut-off valves 111 series, balancing valves 112 series and flow meters 113 series.

Code			
110700		1	–

110

tech. broch. 01221

Assembly kit for modular manifolds. Complete with:
- brass end fitting with automatic air vent, fill/drain cock;
- brass blind end plug;
- pre-formed shell insulation;
- screws and bolts for tie-rods and brackets;
- set of labels for direction of flow and circuit identification;
- temperature gauge with pocket (-30–50°C);
- No. 2 seal gaskets.

Max. working pressure: 6 bar.
System test max. pressure: 10 bar.
Temperature range: -10–60°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Connections: 1 1/4" F.

Code			
110750		1	–

110

tech. broch. 01221

Stainless steel tie-rods
for assembling modular manifolds.
M8 threaded stainless steel bar.

Code			
110012	for manifold with 2 circuits	1	–
110013	for manifold with 3 circuits	1	–
110014	for manifold with 4 circuits	1	–
110015	for manifold with 5 circuits	1	–
110016	for manifold with 6 circuits	1	–
110017	for manifold with 7 circuits	1	–
110018	for manifold with 8 circuits	1	–
110019	for manifold with 9 circuits	1	–
110020	for manifold with 10 circuits	1	–
110021	for manifold with 11 circuits	1	–
110022	for manifold with 12 circuits	1	–

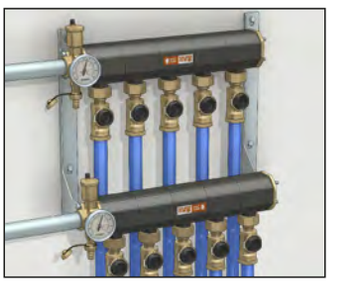
110

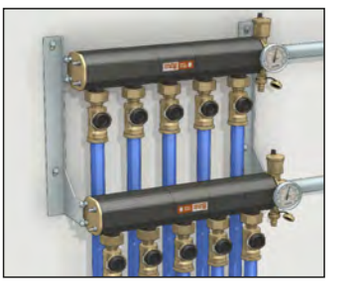
tech. broch. 01221

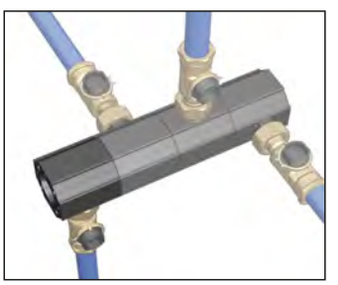
Pair of stainless steel brackets
to secure modular manifolds.
Rapid wall coupling system.
System for rapidly coupling
the manifold on the brackets.
With screws and plugs.

Code			
110001		1	–

Flexibility of installation
The manifold is reversible to adapt the position of the probes with respect to the heat pump.
It can be installed both vertically (against the wall) and horizontally (below ground) thus allowing any probe orientation.







SHUT-OFF AND BALANCING DEVICES FOR GEOTHERMAL MANIFOLD 110 SERIES

111

tech. broch. 01234

Shut-off ball valve
fitted for integrated flow rate measuring sensor.
Complete with fitting for polyethylene pipe.
Brass body. Polymer top plug.
Connection to manifold:
female connection with captive nut 42 p.2,5 TR.
Max. working pressure: 6 bar.
Max. hydraulic test pressure: 10 bar.
Temperature range: -10–40°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.

Code			
111620	42 p.2,5 TR x Ø 25	1	–
111630	42 p.2,5 TR x Ø 32	1	–
111640	42 p.2,5 TR x Ø 40	1	–

111

tech. broch. 01234

Insulation for shut-off valves.
Material: closed cell expanded PE-X.
Tickness: 10 mm.
Density: inner part 30 kg/m^3, outer part 80 kg/m^3.
Thermal conductivity (DIN 52612):
at 0°C: 0,038 W/(m·K); at 40°C: 0,045 W/(m·K).
Coefficient of resistance
to water vapour (DIN 52615): > 1.300.
Temperature range: 0–100°C.
Reaction to fire (DIN 4102): class B2.

Code	Use		
111001	Ø 25 - Ø 32	1	–
111003	Ø 40	1	–

130

tech. broch. 01234

Flow rate electronic measuring station
for connecting sensor with Vortex effect.
Complete with:
- box;
- power supply unit;
- control lever;
- measuring sensor with Vortex effect;
- connecting cable;
- clip and lock.

Rechargeable battery NiMh 9 V.
Complete with battery charger.
Flow rate scale: l/h - l/min - GPM.
Flow rate range: 300–1400 l/h.
Accuracy direct reading of flow rate
and sensor with Vortex effect: ±10%.
Protection class: IP 44.

Code			
130010		1	4

111

tech. broch. 01234

Integrated flow rate measuring sensor
with Vortex effet.
Accuracy reading of flow rate: ±10%.

Code			
111010		1	–

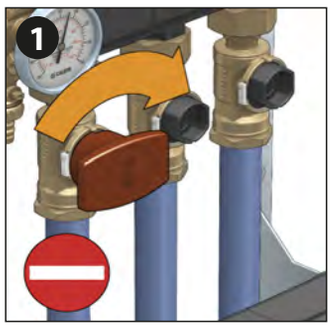
111

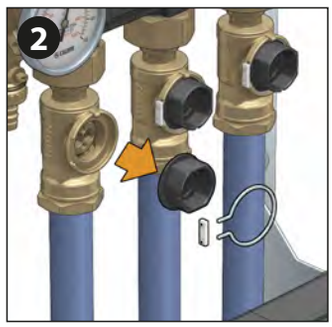
tech. broch. 01234

Control lever for shut-off valves.
Polymer body.

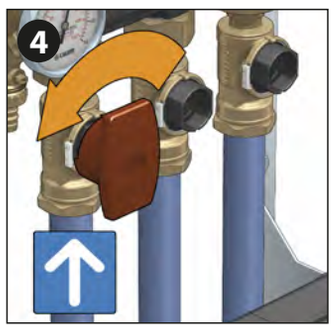
Code			
111002		1	–

To exchange this plug with the sensor it is necessary to:
1. Close the valve using the provided knob.
2. Remove the lock and the clip and then pull out the cap.

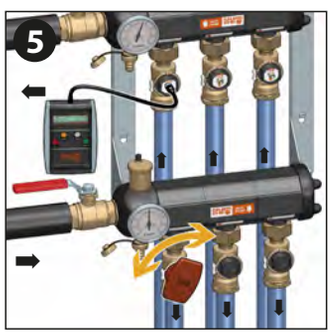


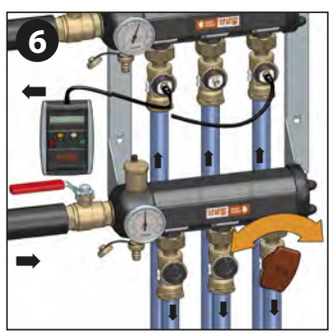


3. Insert the measuring sensor and retain it with the clip and the lock.
4. Reopen the valve with the knob.



5. After carrying out these operations on all the outlets, it is possible to connect the electronic measurer to the sensor of the first branch and measure the corresponding flow rate.
   The flow rate is adjusted by regulating, with the special knob, the shut-off valve on the return manifold in correspondence with the same circuit until the instrument indicates the design setting.
6. This operation must be repeated on the following branches to obtain the desired flow rate.





During the flow rate mesurement, the sensor creates no significant head losses and therefore causes no significant changes in the actual flow rate.

After balancing, disconnect the electronic measurer and put the shut-off valves back into their standard operating condition as follows:

7. Close the valve with the knob (see figure 1).
8. Remove the lock, the clip and extract the sensor (see figure 2).
9. Fit the plug back in and secure it with the seal ring and the clip (see figure 3).
10. Reopen the valve with the knob (see figure 4).

Repeat the process for all the circuits.

SHUT-OFF AND BALANCING DEVICES FOR GEOTHERMAL MANIFOLD 110 SERIES

112

tech. broch. 01235

Balancing valve with flow meter.
Complete with fitting for polyethylene pipe.
Direct reading of flow rate.
Ball valve for flow rate setting.
Graduated scale flow meter
with magnetic movement flow rate indicator.
Brass valve body and flow meter.
Connection to manifold:
female connections with captive nut 42 p.2,5 TR.
Max. working pressure: 10 bar.
Temperature range: -10–40°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Accuracy: ±10%.

Code		Scale (m³/h)		
112621	42 p.2,5 TR x Ø 25	0,3–1,2	1	–
112631	42 p.2,5 TR x Ø 32	0,3–1,2	1	–
112641	42 p.2,5 TR x Ø 40	0,3–1,2	1	–

112

tech. broch. 01235

Insulation for balancing valves.
Material: closed cell expanded PE-X.
Tickness: 10 mm.
Density: inner part 30 kg/m³, outer part 80 kg/m³.
Thermal conductivity (DIN 52612):
at 0°C: 0,038 W/(m·K); at 40°C: 0,045 W/(m·K).
Coefficient of resistance
to water vapour (DIN 52615): > 1.300.
Working temperature range: 0–100°C.
Reaction to fire (DIN 4102): class B2.

Code	Use		
112001	Ø 25 - Ø 32	1	–
112003	Ø 40	1	–

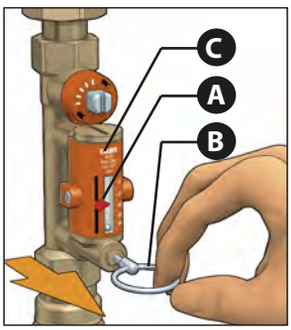
112

tech. broch. 01235

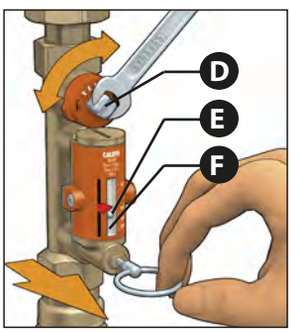
Balancing valve with flow meter
with ball shut-off valve
and fitting for polyethylene pipe.
Direct reading of flow rate and
setting via upper ball valve.
Graduated scale flow meter with
magnetic movement flow rate indicator.
Brass valve body and flow meter.
Connection to manifold:
female connection with captive nut 42 p.2,5 TR.
Max. working pressure: 10 bar.
Temperature range: -10–40°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Accuracy: ±10%.

Code		Scale (m³/h)		
112622	42 p.2,5 TR x Ø 25	0,3–1,2	1	–
112632	42 p.2,5 TR x Ø 32	0,3–1,2	1	–

Flow rate adjustment



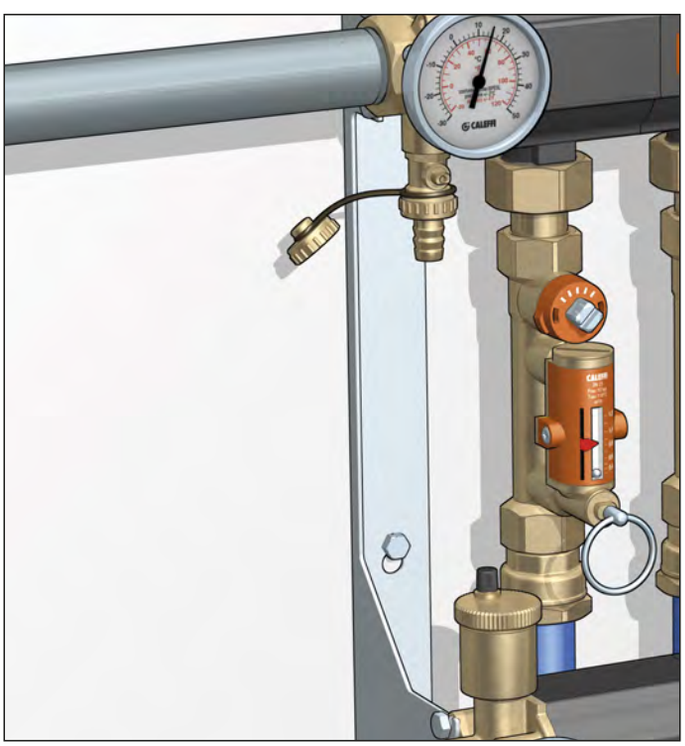
1. With the aid of the indicator (A), mark the reference flow rate at which the valve is to be set.
2. Use the ring (B), to open the obturator that shuts off the flow of medium in the flow meter (C) under normal operating conditions.
3. Keeping the obturator open, use a wrench on the valve's control stem (D) to adjust the flow rate.
   It is indicated by a metal ball (E), that runs inside a transparent guide (F) next to which there is a graduated scale in m³/h.
4. After completing the balancing, release the ring (B) of the flow meter obturator which, thanks to an internal spring, will automatically go back into the closed position.



5. On completing the adjustment, the indicator (A) can be used to keep the setting memory, in case checks need to be made over time.

Construction details

On 112 series valves, the flow rate reading is given directly by a flow meter, obtained with a by-pass on the body of the device, which can be automatically cut off during normal operation.



The use of a flow meter greatly simplifies the process of system balancing, since the flow rate can be measured and controlled at any time and there is no need for differential pressure gauges or reference charts.

SHUT-OFF AND BALANCING DEVICES FOR GEOTHERMAL MANIFOLD 110 SERIES

113

tech. broch. 01236

Float flow meter.
Complete with fitting for polyethylene pipe.
Direct reading of flow rate.
Ball valve for flow rate setting.
Brass body.
Connection to manifold:
female connection with captive nut 42 p.2,5 TR.
Max. working pressure: 10 bar.
Working temperature range: -10–40°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Accuracy: ±10%.

Code		Scale (m³/h)		
113621	42 p.2,5 TR x Ø 25	0,3–1,2	1	–
113631	42 p.2,5 TR x Ø 32	0,3–1,2	1	–

113

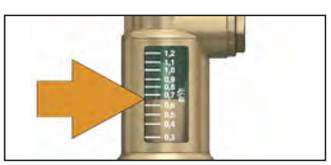
tech. broch. 01236

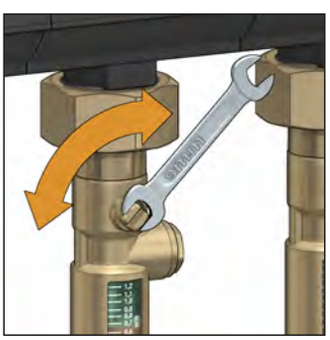
Insulation for float flow meter.
Material: closed cell expanded PE-X.
Thickness: 10 mm.
Density: inner part 30 kg/m³, outer part 80 kg/m³.
Thermal conductivity (DIN 52612):
at 0°C: 0,038 W/(m·K); at 40°C: 0,045 W/(m·K).
Coefficient of resistance
to water vapour (DIN 52615): > 1.300.
Working temperature range: 0–100°C.
Rection to fire (DIN 4102): class B2.

Code	Use		
113001	Ø 25 - Ø 32	1	–

Flow rate adjustment

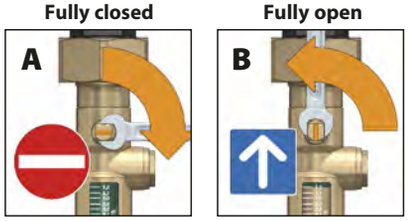
The flow rate in each probe is indicated by the top edge of the float and can be modified by turning a 9 mm spanner on the ball valve.





Full closing and opening of the valve

The valve can be fully opened and closed.
A slot on the obturator stem indicates the status of the valve.



Correction for liquids with different densities

To have the actual flow rate when using glycol solutions at low temperature it is necessary to multiply the reading of the float flow meter by a corrective factor of:
- 0,9 for concentrations of 20-30%
- 0,8 for concentrations of 40-50%

871

Ball valve complete with fitting
for polyethylene pipe.
Brass body.
Connection to manifold:
female connection with captive nut 42 p.2,5 TR.
Max. working pressure: 16 bar.
Working temperature range: -10–40°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Fitted for 111 series insulation.

Code			
871025	42 p.2,5 TR x Ø 25	1	–
871032	42 p.2,5 TR x Ø 32	1	–
871040	42 p.2,5 TR x Ø 40	1	–

110

Union with gasket.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
110050	42 p.2,5 TR x 3/4"	1	–
110060	42 p.2,5 TR x 1"	1	–

SYSTEM COMPOSITION EXAMPLE WITH CALEFFI 110 SERIES GEOTHERMAL MANIFOLD

111 series

Ball shut-off valve

Fitted for sensor with Vortex effect for integrated flow rate measuring

DN 25	DN 32	DN 40
Code 111620	Code 111630	Code 111640

Connection to manifold
42 p.2,5 TR

Pipe connection
Ø 25 | Ø 32 | Ø 40

Insulation

DN 25	DN 32	DN 40
Code 111001		Code 111003

Control lever

Code 111002

Flow rate measuring station

Code 111010

Flow rate electronic measuring station

Code 130010

112 series

Balancing valve with flow meter

With fitting for polyethylene pipe

DN 25	DN 32	DN 40
Code 112621	Code 112631	Code 111641

Connection to manifold
42 p.2,5 TR

Pipe connection
Ø 25 | Ø 32 | Ø 40

Insulation

DN 25	DN 32	DN 40
Code 112001		Code 112003

Balancing valve with flow meter

With ball valve and fitting for polyethylene pipe

DN 25	DN 32
Code 112622	Code 112632

Connection to manifold
42 p.2,5 TR

Pipe connection
Ø 25 | Ø 32

Insulation

DN 25	DN 32
Code 112001	

113 series

Float flow meter

With fitting for polyethylene pipe

DN 25	DN 32
Code 113621	Code 113631

Connection to manifold
42 p.2,5 TR

Pipe connection
Ø 25 | Ø 32

Insulation

DN 25	DN 32
Code 113001	

871 series

Ball valve

With fitting for polyethylene pipe

DN 25	DN 32	DN 40
Code 871025	Code 871032	Code 871040

Connection to manifold
42 p.2,5 TR

Pipe connection
Ø 25 | Ø 32 | Ø 40

Insulation

DN 25	DN 32
Code 111001	

DEVICES FOR GENERIC GEOTHERMAL MANIFOLDS

112

Balancing valve with flow meter.
Direct reading of flow rate.
Ball valve for flow rate setting.
Graduated scale flow meter
with magnetic movement flow rate indicator.
Brass body valve and flow meter.
Connection to manifold:
female connection with captive nut.
Max. working pressure: 10 bar.
Temperature range: -10–110°C.
Ambient temperature range: -20–60°C.
Medium: water, glycol solutions, saline solutions.
Max. percentage of glycol: 50%.
Accuracy: ±10%.

Code		Scale (m³/h)		
112660	1″ F x 1″ F	0,3–1,2	1	–
112670	1 1/4″ F x 1″ F	0,3–1,2	1	–

861

tech. broch. 01037

Male fitting. In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
861625	Ø 25 x 1″ M	10	60
861632	Ø 32 x 1″ M	10	50

862

tech. broch. 01037

Reduced male fitting. In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
862640	Ø 40 x 1″ M	10	50

942

Sleeve fitting.

Code			
942560	3/4″ x 1″	50	–

871

tech. broch. 01037

Fitting with ball valve. In brass.
For polyethylene pipes.
Max. working pressure: 16 bar.
Max. working temperature: 40°C.

Code			
871525	Ø 25 x 3/4″ F	5	25
871532	Ø 32 x 3/4″ F	5	25

SYSTEM COMPOSITION EXAMPLE WITH GENERIC GEOTHERMAL MANIFOLDS

112 series

Balancing valve with flow meter

Code **112**660	Code **112**670
Connection 1″ F x 1″ F	**Connection** 1 1/4″ F x 1″ F

Fitting for polyethylene pipe

DN 25	DN 32	DN 40
Code **861**625	**Code** **861**632	**Code** **862**640

Balancing valve connection
1″ M

Pipe connection
Ø 25 | Ø 32 | Ø 40

Fitting for extra shut-off

Code
942560

Balancing pipe connection
1″ M

Shut-off connection
3/4″ M

Insulation

DN 25	DN 32	DN 40
	Code **112**001	**Code** **112**003

Ball valve complete with fitting for polyethylene pipe

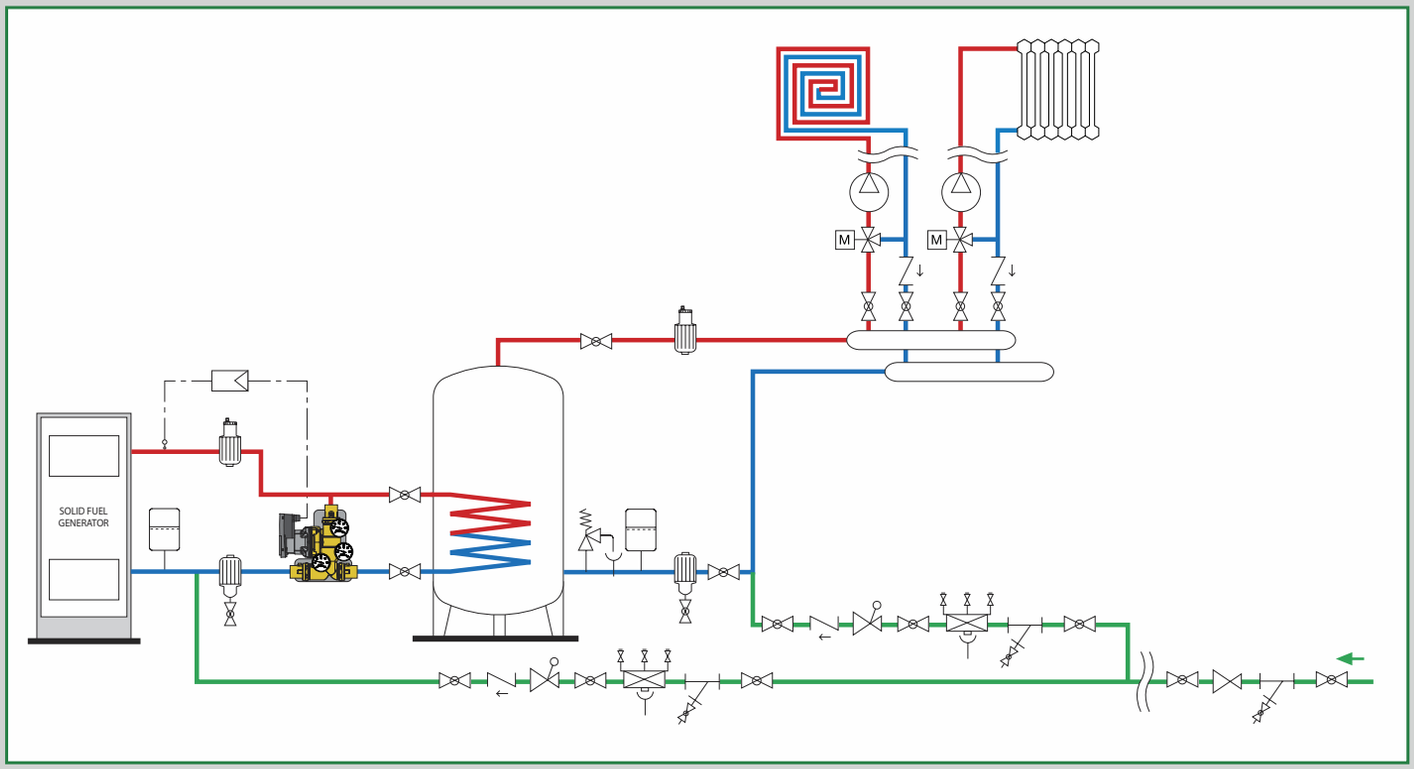
DN 25	DN 32
Code **871**525	**Code** **871**532

Fitting connection
3/4″ F

Pipe connection
Ø 25 | Ø 32

COMPONENTS FOR BIOMASS SYSTEMS

This diagram is just an indication



Safety devices
Anti-condensation valve
Anti-condensation circulation unit
Anti-condensation recirculation and distribution unit
Connection and energy management unit (heating version)
Connection and energy management unit (heating and domestic hot water with storage version)
Connection and energy management unit (heating and instantaneous hot water version)
Digital regulator for systems with solid fuel generator
Solid fuel generator-to-gas boiler connection kit

CALEFFI BIOMASS

The CALEFFI BIOMASS® product series has been created specifically to be used in circuits of systems with wood solid fuel generators, operating at high temperature with water or glycol solutions as thermal medium. The materials of the components and their performance take account of the specific system needs in terms of efficiency and safety of the generators and systems.

SAFETY DEVICES

542

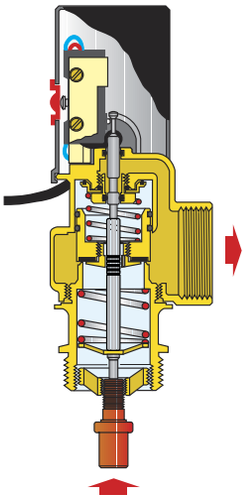
tech. broch. 01001

Temperature relief valve,
with fail-safe action.
Manual reset for burner switch off
or alarm activation.
Working pressure: 0,3 bar ≤ P ≤ 10 bar.
Temperature range: 5–100°C.
Settings temperature: 98°C, 99°C.
Certified and calibrated to INAIL.
Discharge rating:
1 1/2" x 1 1/4" - 136 kW.
1 1/2" x 1 1/2" - 419 kW.

Code		Setting		
542870	1 1/2" M x 1 1/4" F	98°C	1	10
542880	1 1/2" M x 1 1/2" F	99°C	1	10

Function

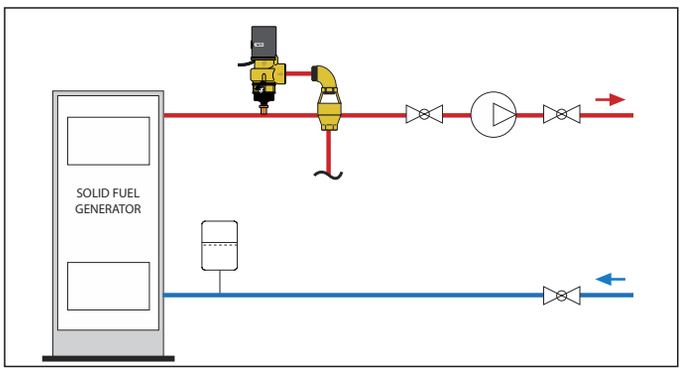
The temperature relief valve discharges the system water on reaching the setting temperature. Equipped with positive action.
It can be used with non-pulverized solid fuel generators with open or closed vessel in accordance with current regulations.

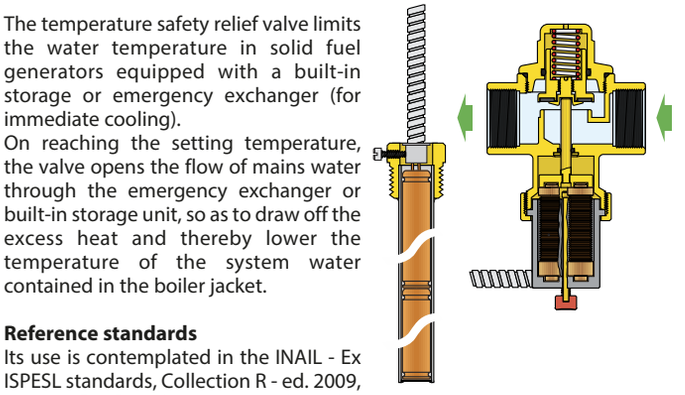


INAIL - Ex ISPESL reference standards
According to the provisions of Collection R Ed. 2009, concerning *"central heating systems using hot water with temperatures no greater than 110°C and a maximum nominal heat output greater than 35 kW"*, the use of the temperature relief valve is contemplated in the following cases:

Open vessel systems
- Systems with generators stoked with non-pulverized solid fuel, in place of the consumption water heater or emergency exchanger (chap. R.3.C., point 2.1, letter i2).

Closed vessel systems
- Thermal systems with generators stoked with non-pulverized solid fuels up to a nominal heat output of 100 kW with partial cut-off in place of the residual power dissipation device (chap. R.3.C., point 3.2).





543

tech. broch. 01057

Temperature safety relief valve,
with double safety sensor,
for solid fuel generators.
Brass body. Chrome plated.
Max. working pressure: 10 bar.
Temperature range: 5–110°C.
Setting temperature: 98°C (0/-4°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 3000 l/h.
Capillary length: 1300 mm.
Certified to EN 14597.

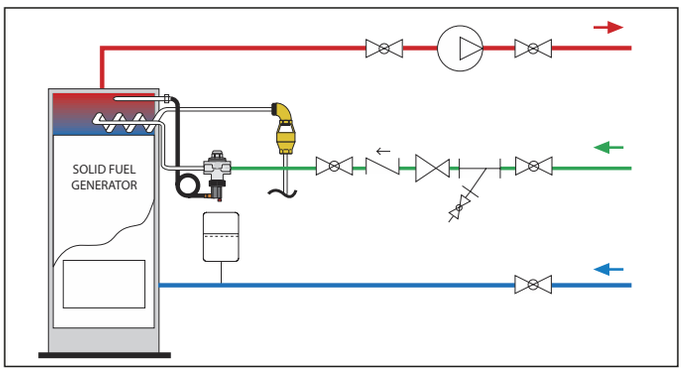
www.tuv.com
ID 0000021744

Code		Setting			
543513	3/4" F	98°C		1	10
543503	3/4" F	98°C	yellow brass body	1	10

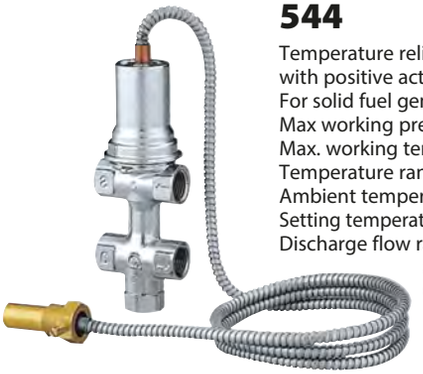
Function

The temperature safety relief valve limits the water temperature in solid fuel generators equipped with a built-in storage or emergency exchanger (for immediate cooling).
On reaching the setting temperature, the valve opens the flow of mains water through the emergency exchanger or built-in storage unit, so as to draw off the excess heat and thereby lower the temperature of the system water contained in the boiler jacket.

Reference standards
Its use is contemplated in the INAIL - Ex ISPESL standards, Collection R - ed. 2009, chapter R.3.C., point 2.1, letter i2; point 3.1, letter i; point 3.3. The valve complies with EN 14597, it can be combined with solid fuel generators with a heat output of less than 100 kW, used according to the system provisions of the standards EN 12828, UNI 10412-2 and EN 303-5.



SAFETY DEVICES



544

tech. broch. 01058

Temperature relief valve,
with positive action with automatic filling.
For solid fuel generators.
Max working pressure: 6 bar.
Max. working temperature: 110°C.
Temperature range: 5–110°C.
Ambient temperature range: 1–50°C.
Setting temperature: 100°C (0/-5°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 1600 l/h.
Capillary length: 1300 mm.

Code		Setting		
544400	1/2"	100°C	1	10

544

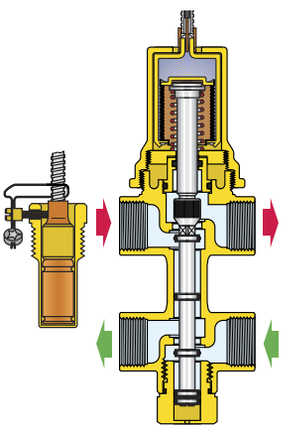
Temperature relief valve
with automatic filling for solid fuel generators,
with knob for manual discharge.
Max. working pressure: 6 bar.
Max. working temperature: 120°C.
Setting temperature: 100°C (0/-5°C).
Discharge flow rate with Δp of 1 bar
and T=110°C: 1800 l/h.

Code		Setting		
544501	3/4"	100°C	1	–

Function

On reaching the setting temperature, the temperature relief valve discharges the water of the system with a solid fuel generator.
The device integrates in a single group a temperature relief valve with a positive safety remote sensor and a filling valve. The discharge of water enables limiting the system water temperature, while the filling inlet enables the replacement of the discharged flow rate.

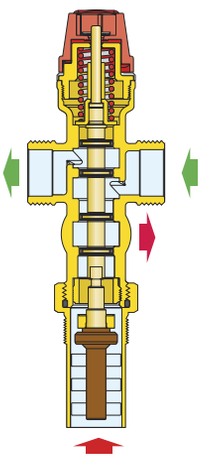
Reference standards
Used when there is no emergency exchanger and for heat outputs < 35 kW (Italy).

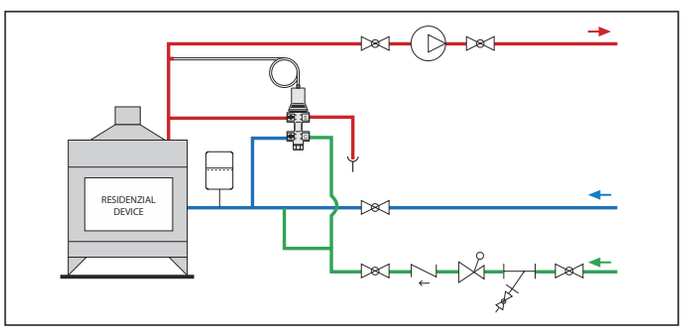


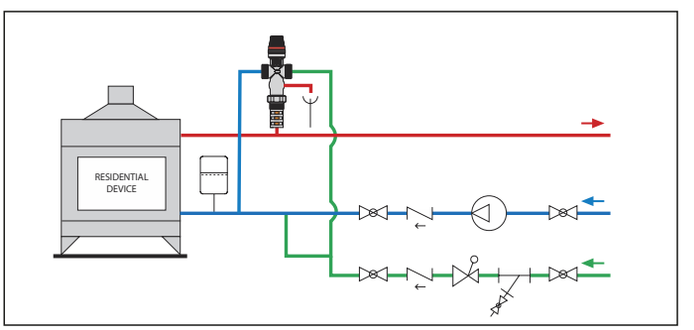
Function

The device integrates in a single group a temperature relief valve and a filling valve that operate simultaneously by means of a sensor integrated in the valve body. On reaching the setting value, the valve opens the discharge outlet to eliminate the excess heat and, at the same time, the filling inlet to replace the discharged flow rate of the system water.

Reference standards
Used when there is no emergency exchanger and for heat outputs < 35 kW (Italy).







529

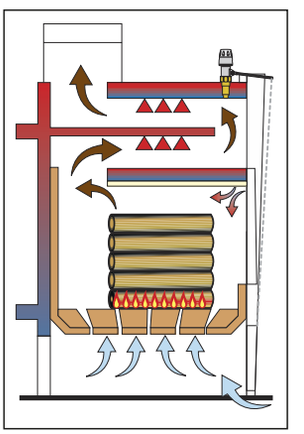
tech. broch. 01226

Draught regulating valve.
Male threaded connection.
Adjustment temperature range: 30–90°C.
Certified to EN 14597.

Code		Pocket length (mm)		
529050	3/4" M ISO 7/1	58	1	10
529150	3/4" M ISO 7/1	58	1	10
529151	3/4" M ISO 7/1	78	1	10

Function

The draught regulating valve, installed on the generator with the thermostatic element immersed in the medium, automatically adjusts the flow rate of the comburent air to provide a more regular and complete combustion.



ANTI-CONDENSATION VALVE

280

tech. broch. 01223

Anti-condensation valve
with thermostatic control of the return temperature to solid fuel generators.
Brass body.
Male union connections.
Max. percentage of glycol: 50%.
Max. working pressure: 10 bar.
Temperature range: 5–100°C.
Settings: 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature:
Tmix = Tset +10°C = Tr.

Code	DN	Connection	Kv (m³/h)		
28005.	20	3/4″	3,2	1	10
28026.*	20	1″	3,2	1	10
28006.	25	1″	9	1	5
28007.	32	1 1/4″	12	1	5

**** Caution: same Kv value of 3/4″ valve***
For DN 20 valves, the max. suggested power output is 10 kW

Valve selection
The valve selection should be made according to the Kv value (corresponding to a specific DN body size) and not only according to the threaded connections. Given the system flow rate, the corresponding head losses on the valve should be calculated by using the Kv value. The sum of the head losses on the valve and the head losses of the rest of the system should be compatible with the available head of the generator pump.

• Code completion

Setting	45°C	55°C	60°C	70°C
•	**4**	**5**	**6**	**7**

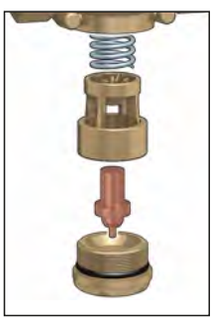
Spare thermostats
for anti-condensation valve.

Code	Setting	Use		
F29629	45°C	code **280**05. / **280**26.	1	–
F29630	55°C	code **280**05. / **280**26.	1	–
F29631	60°C	code **280**05. / **280**26.	1	–
F29632	70°C	code **280**05. / **280**26.	1	–
F29633*	45°C	code **280**06. / **280**07.	1	–
F29634*	55°C	code **280**06. / **280**07.	1	–
F29635*	60°C	code **280**06. / **280**07.	1	–
F29636*	70°C	code **280**06. / **280**07.	1	–

**** Utilizzare anche per serie 281, 282, 2850, 2851, 2853, 2855***

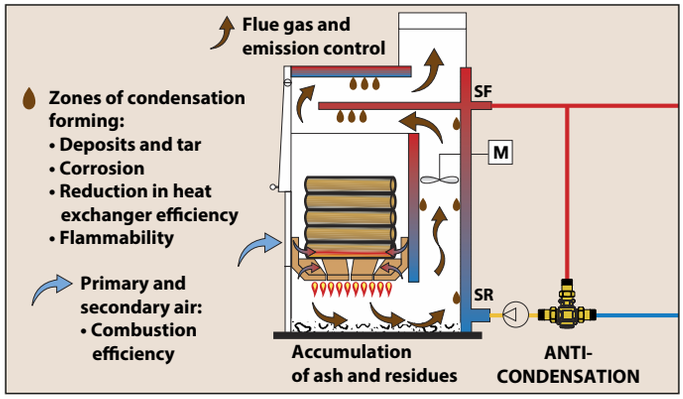
Thermostat replacement to modify setting
The adjustment sensor can easily be removed for maintenance or to change the set, with no need to remove the valve body from the piping.

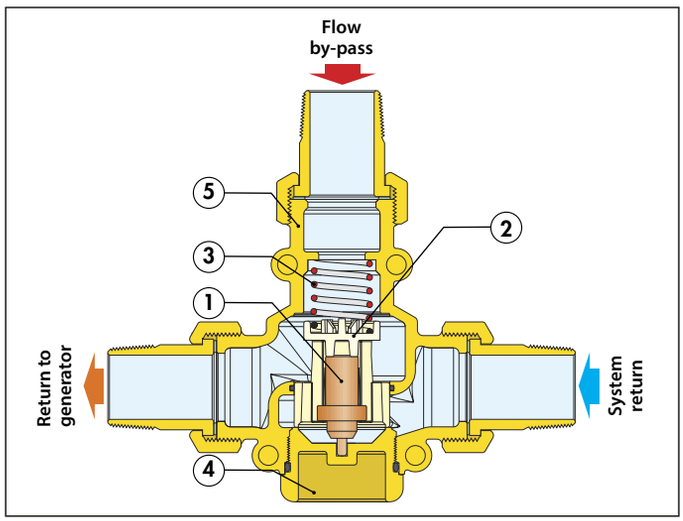
Installation
The valve can be fitted on both sides of the generator in any position, vertical or horizontal.
Installation is recommended on the return to the generator in mixing mode; it is also allowed on the flow from the generator in diverter mode according to the needs of system control.



Function

The anti-condensation valve, used in heating systems with a solid fuel generator, automatically regulates at the set value the temperature of the water returning to the generator.
Keeping the boiler at a high temperature **prevents condensation of the water vapour contained in the flue gas**.
Condensation produces tarry deposits that, accumulating on the metal surfaces of the flue gas-system water exchanger, cause corrosion, reduce the thermal efficiency of the flue gas-system water exchanger and are a source of danger for the flue gas chimney as they are flammable.
The anti-condensation valve gives the generator a longer life and ensures greater efficiency.

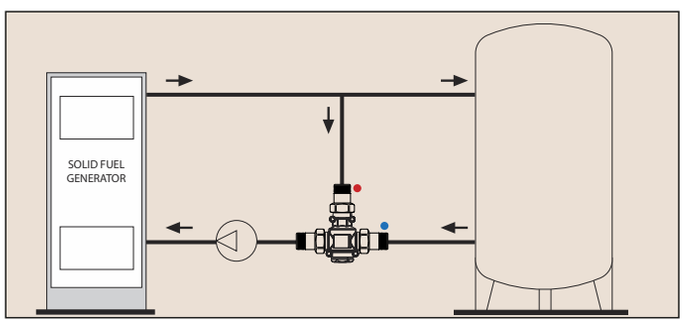




Characteristics components

1) Thermostatic sensor
2) Obturator
3) Spring
4) Plug
5) Valve body

Installation in mixing mode (anti-condensation)



ANTI-CONDENSATION RECIRCULATION AND DISTRIBUTION UNIT

281

tech. broch. 01224

Anti-condensation recirculation and distribution unit, with thermostatic control of the return temperature to solid fuel generators. Brass body.
With insulation.
Female union connections.
Medium: water, glycol solutions.
Max. percentage of glycol: 50%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Max. recommended flow rate: 2 m³/h.
Temperature gauge scale: 0–120°C.

Anti-condensation valve
Temperature range: 5–100°C.
Settings: 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature: Tmix = Tset +10°C = Tr.

Pump
High-efficiency pump: YONOS PARA 25/6 RKC.

Code	DN	Connection			
28106.WYP	25	1" F	with pump YONOS PARA 25/6 RKC	1	–
28107.WYP	25	1 1/4" F	with pump YONOS PARA 25/6 RKC	1	–

Unit sizing
The unit should be selected according to the head avalaible at the unit connections, depending on the DN, and not only according to the threaded connections. Given the system head losses, the available head of the unit pump should be evaluated.

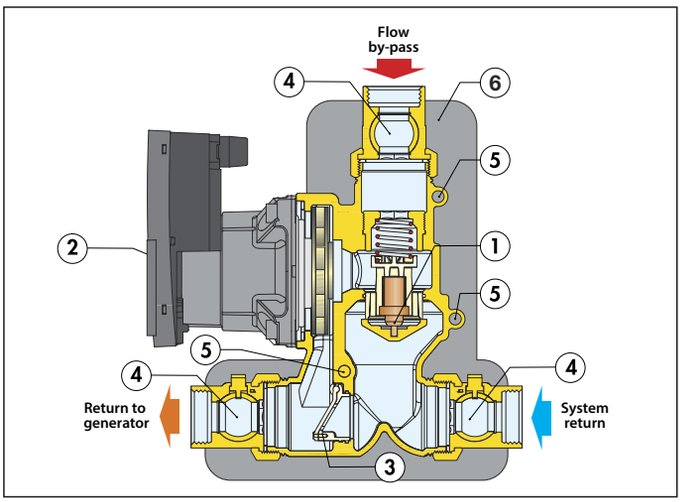
• Code completion

Setting	45°C	55°C	60°C	70°C
•	**4**	**5**	**6**	**7**

For spare thermostats see page 258

Function

The anti-condensation recirculation and distribution unit enables the connection of the solid fuel generator to the user system (direct or with inertial storage). It controls the return temperature to the generator to avoid condensation, by means of the built-in thermostatic device.



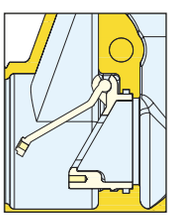
Characteristics components

1) Anti-condensation thermostatic device
2) High-efficiency pump
3) Natural circulation clapet valve
4) Union with built-in ball valve
5) Temperature gauge housing
6) Insulation

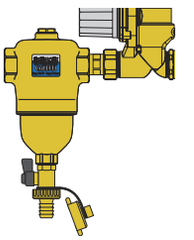
Construction details

Single casting and reversibility
The compact brass single casting, that houses the pump and functional components, enables immediate installation of the device, either on the right or left of the solid fuel generator, respecting the flow directions as shown. The temperature gauges can be extracted from the housings and re-inserted in the same position on the back side of the unit.

Anti-condensation valve
This device incorporates a thermostatic sensor to control the temperature of the water returning to the solid fuel generator so as to prevent condensation. The sensor has been specifically realised to be removed from the valve body for maintenance or replacement if necessary.

Natural circulation clapet valve

The function of this clapet device is to ensure natural circulation of the medium in the event of pump stop due to an electric supply failure. When the pump is active, the thrust of medium keeps the valve closed, forcing the water to flow through the anti-condensation thermostatic valve. If the event of pump stop, when the water within the generator is at high temperature, a natural circulation of the water begins, by-passing the anti-condensation valve, thus preventing the temperature in the generator from reaching dangerous high levels. The unit is provided with natural circulation valve locked. To activate its function, remove the locking screw.

Dirt separator
In order to carry out continuous dirt separation in the system it is available the 5462 series DIRTCAL® dirt separator as accessory.



ANTI-CONDENSATION CIRCULATION UNIT

282

tech. broch. 01225

Circulation unit with anti-condensation valve, with thermostatic control of the return temperature to solid fuel generators. **With insulation**.
System circuit connections: 1″ F with union.
Generator circuit connections: 1″ F.
Medium: water, glycol solutions.
Max. percentage of glycol: 50%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Temperature gauge scale: 0–120°C.

Anti-condensation valve
Temperature range: 5÷100°C.
Setting temperature: 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperaure: Tmix = Tset +10°C = Tr.

Pump
High-efficiency pump: UPM3 auto L 25-70, UPML 25-95.

CE

Generator return on LH side

Code	Connection	Connection centre distance			
28260.A2L	1″ F	90 mm	with pump UPM3 Auto L 25-70	1	–
28264.UPM	1″ F	90 mm	with pump UPML 25-95	1	–
28262.A2L	1″ F	125 mm	with pump UPM3 Auto L 25-70	1	–
28266.UPM	1″ F	125 mm	with pump UPML 25-95	1	–

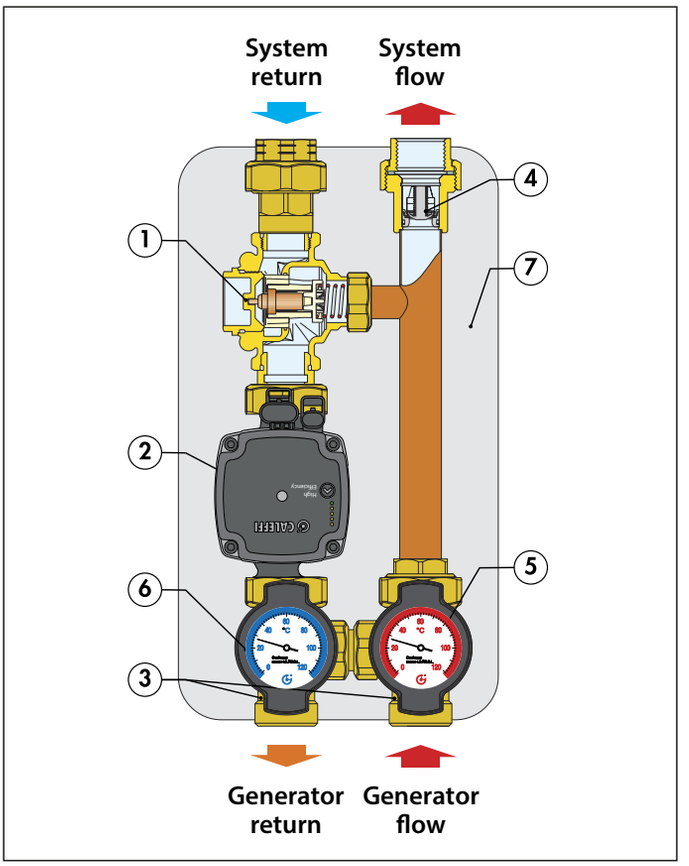
Generator return on RH side

Code	Connection	Connection centre distance			
28261.A2L	1″ F	90 mm	with pump UPM3 Auto L 25-70	1	–
28265.UPM	1″ F	90 mm	with pump UPML 25-95	1	–
28263.A2L	1″ F	125 mm	with pump UPM3 Auto L 25-70	1	–
28267.UPM	1″ F	125 mm	with pump UPML 25-95	1	–

Unit sizing
The unit should be selected according to the head avalaible at the unit connections, depending on the DN, and not only according to the threaded connections. Given the system head losses, the available head of the unit pump should be evaluated.

Function

The anti-condensation circulation unit performs the function of connecting the solid fuel generator to the distribution manifold, controlling the return temperature to the generator, to avoid condensation by means of the built-in thermostatic device. The unit also enables connecting the generator to the inertial storage or directly to the user system.



Characteristics components

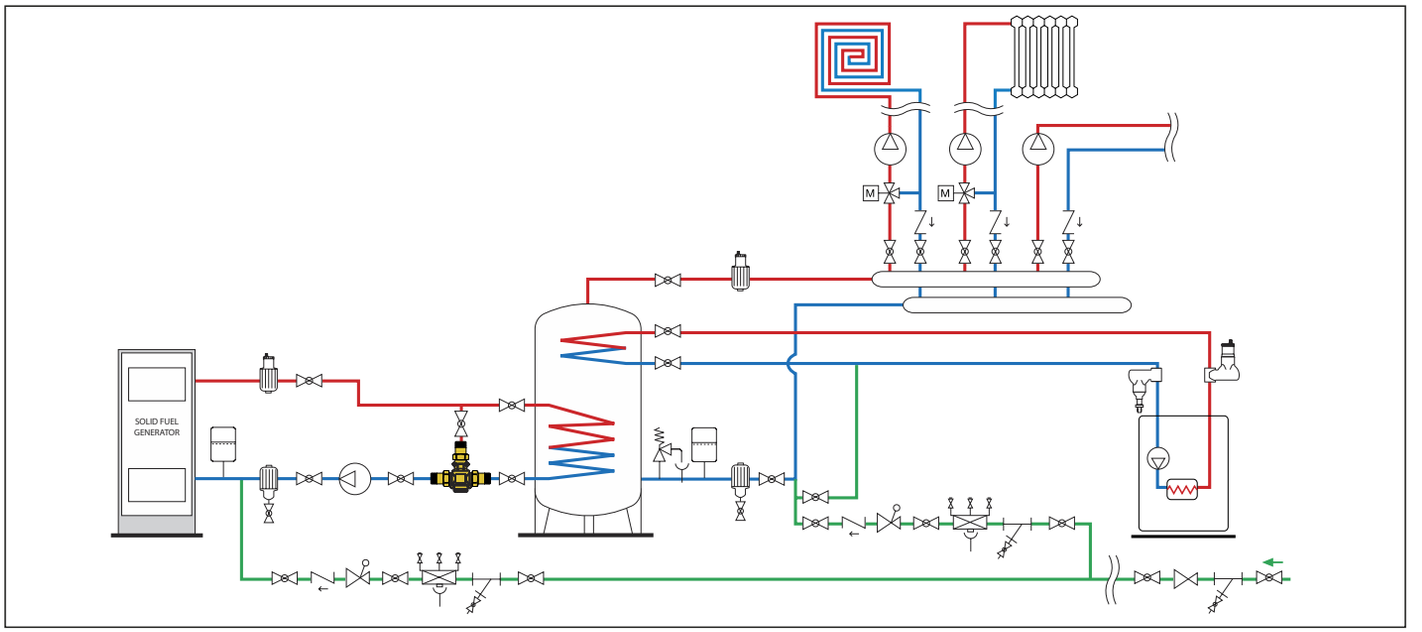
1) Anti-condensation valve
2) High-efficiency pump
3) Shut-off valves
4) Check valve
5) Flow temperature gauge
6) Return temperature gauge
7) Insulation

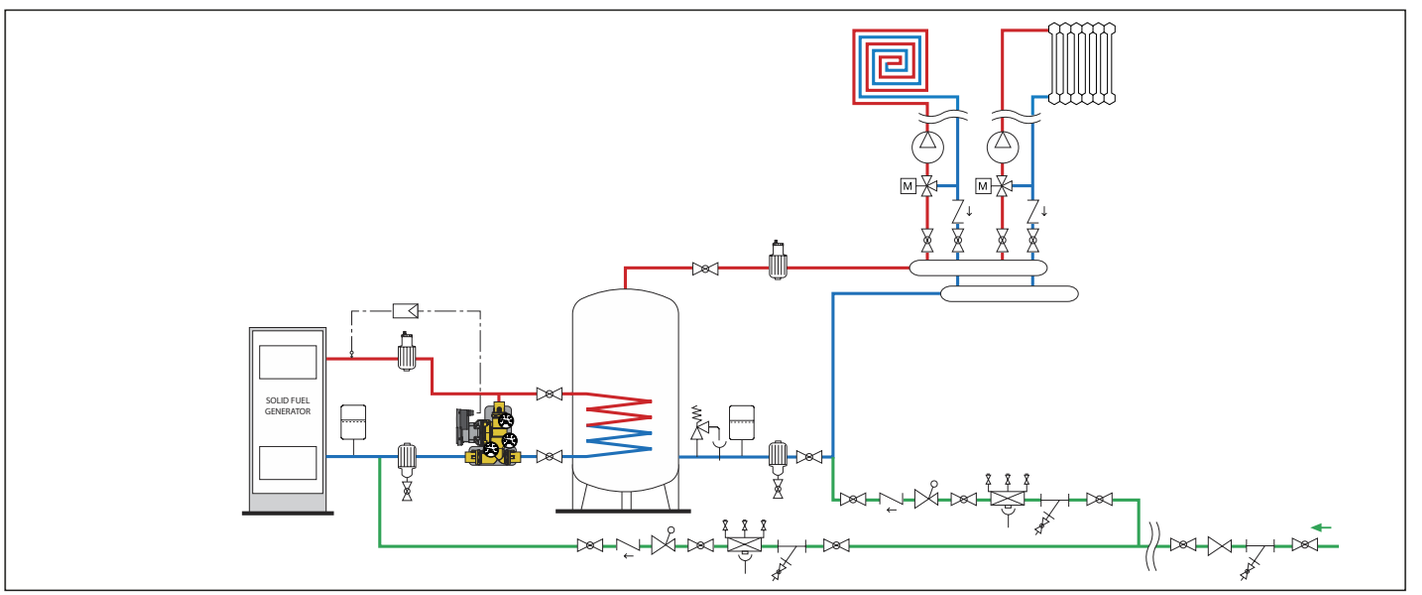
• Code completion

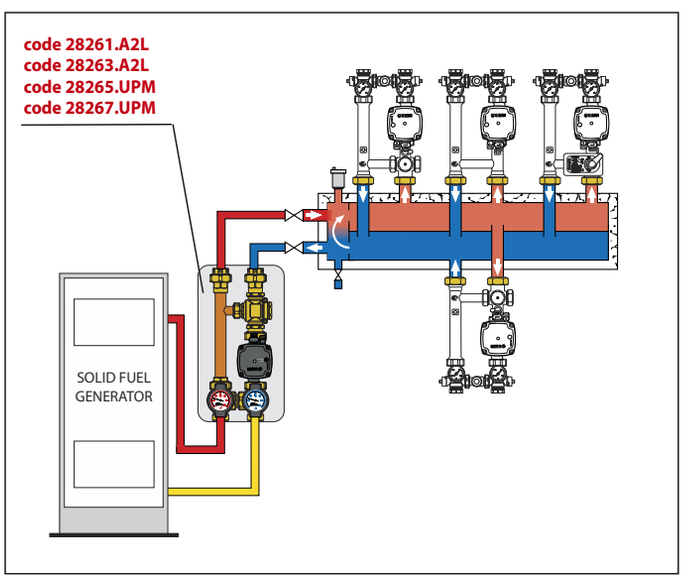
Setting	45°C	55°C	60°C	70°C
•	4	5	6	7

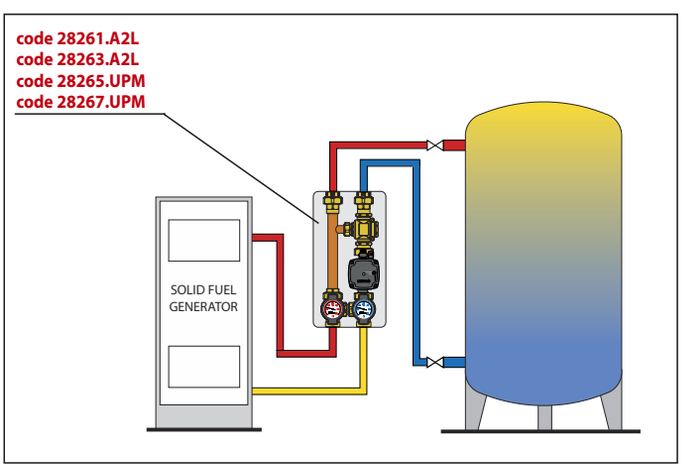
For spare thermostats see page 258

Application diagram









CONNECTION AND ENERGY MANAGEMENT COMPACT UNIT (heating version)

2850

tech. broch. 01259

Connection and energy management compact unit
Female threaded connections.
Primary side connections: 1″ F.
Secondary side system connections: 1″ F.
Secondary side boiler connections: 3/4″ F.
Medium: water, glycol solutions.
Max. percentage of glycol: 30%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Max. heat exchanger net output: 35 kW.
Max. recommended primary circuit flow rate: 1,7 m³/h.
Max. recommended secondary circuit flow rate: 1,7 m³/h.
Anti-condensation set temperature (Tset): 55°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature: Tmix = Tset+10°C = Tr.

Regulator
Supply: 230 V - 50/60 Hz.

Pumps
Primary circuit: high-efficiency YONOS PARA 25/6 RKC.
Secondary circuit: high-efficiency variable speed pump YONOS PARA 15/6 RKA.

CE

Code	Conn.	Primary circulation pump			
285060HE2	1″	Y. P. 15/6	without anti-condensation valve	1	–
285065HE2	1″	Y. P. 15/6		1	–

2850

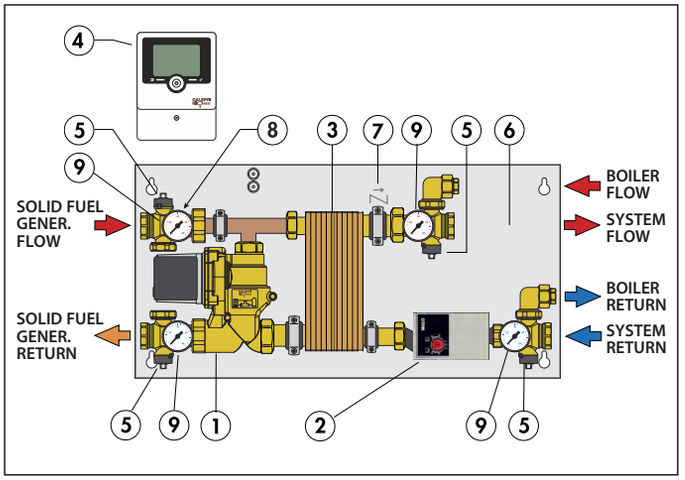
tech. broch. 01259

Painted steel cover RAL 9010.

Code		
285010	1	–

Function

Main functional features:
- connection of new solid fuel generators (**both boilers and residential devices, with maximum heat output of 35 kW, both with open or closed vessel**);
- automatic operation management between the solid fuel generator and boiler;
- built-in anti-condensation system (optional) for solid fuel generator;
- compact unit with reduced overall dimensions, with easy hydraulic connection.



Characteristic components

1) Single casting unit with YONOS PARA 25/6 RKC pump, complete with anti-condensation valve (optional), primary side
2) YONOS PARA 15/6 RKA pump, secondary side (system)
3) Brazed plate heat exchanger
4) Digital regulator
5) Shut-off valve
6) Wall mounting template (h x w): 334 x 684 mm.
7) Check valve
8) Manual air vent
9) Temperature gauge

NEW

2850

tech. broch. 01259

Spare regulator for 2850 series, complete with probe.
Supply : 230 V - 50/60 Hz.

Code		
285000	1	–

NEW

2850

tech. broch. 01259

AM1 alarm module.
VBus connection.
Optical visualisation of alarm and releais control.
Relais max. contact rating: 30 V.

Code		
285020	1	–

For spare thermostats see page 258

CONNECTION AND ENERGY MANAGEMENT UNIT (heating version)

2851

tech. broch. 01227

Connection and energy management unit, heating version.
Male threaded connections.
Medium: water, glycol solutions.
Max. percentage of glycol: 30%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Max. heat exchanger net output: 35 kW.
Max. recommended primary circuit flow rate: 1,5 m^3/h.
Max. recommended secondary circuit flow rate (system): 1,5 m^3/h.
Anti-condensation set temperature (optional): 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature: Tmix = Tset+10°C = Tr.

Regulator
Supply: 230 V - 50/60 Hz.

Pumps
High-efficiency pump: YONOS PARA 25/6 RKA, YONOS PARA 15/6 RKA.

Diverter valve with spring return
Max. working pressure: 10 bar.
Δp max.: 1 bar.

Diverter valve actuator with spring return
Synchronous motor.
Normally closed.
Supply: 230 V - 50/60 Hz.
Opening time: 70–75 s.
Closing time: 5–7 s.

Code			
28515.WYP	3/4" M	1	–
285150WYP	3/4" M without anti-condensation valve	1	–

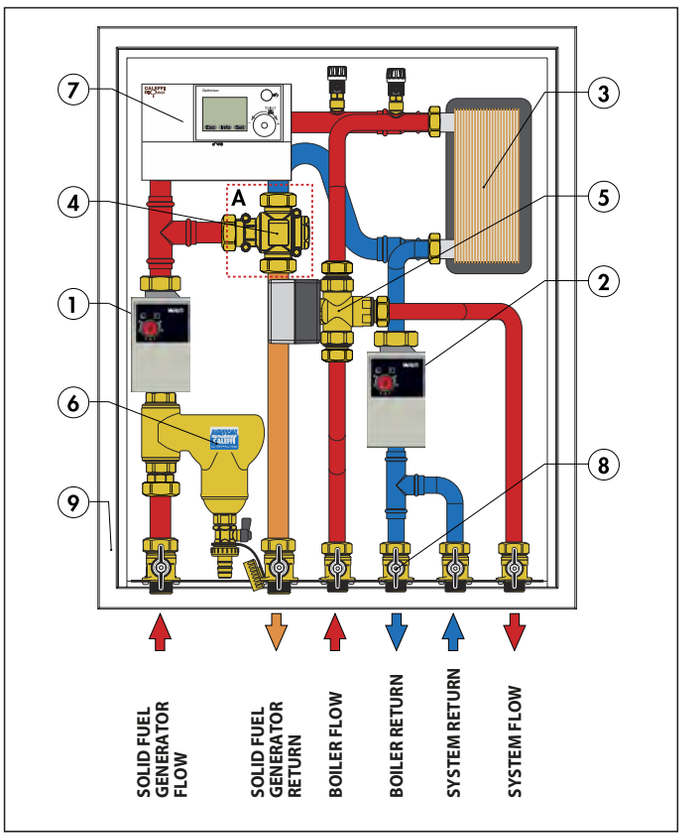
• Code completion

Setting	45°C	55°C	60°C	70°C
•	**4**	**5**	**6**	**7**

For spare thermostats see page 258

Function

Main functional features:
- connection of new solid fuel generators **(both boilers and residential devices, with maximum heat output of 35 kW, both with open or closed vessel)** with other closed vessel generators;
- possibility of **not adding the power outputs of the two generators as described in INAIL (Italy)**;
- automatic system management with a specific digital regulator for heating circuits and simple solar thermal system;
- built-in anti-condensation system (optional) for solid fuel generator;
- easy access to components for maintenance;
- practical installation thanks to the arrangement in a box.

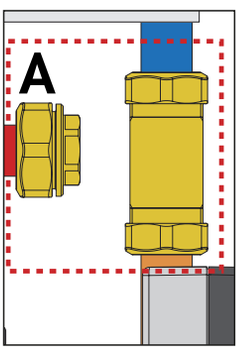


Characteristic components

1) Wilo YONOS PARA 25/6 RKA pump on primary side for solid fuel generator
2) Wilo YONOS PARA 15/6 RKA pump on secondary side (system)
3) Brazed plate heat exchanger
4) Anti-condensation valve (optional)
5) Three-way diverter valve with spring return
6) Dirt separator
7) Digital regulator
8) Shut-off ball valves
9) Box for wall-mounting (h x w x d): 790 x 650 x 160 mm.

A) Code 285150WYP without anti-condensation valve

Code 285150WYP without anti-condensation valve



CONNECTION AND ENERGY MANAGEMENT UNIT
(heating and domestic hot water with storage version)

2853

tech. broch. 01228

Connection and energy management unit, heating and domestic hot water with storage version. Male threaded connections.
Medium: water, glycol solutions.
Max. percentage of glycol: 30%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Max. heat exchanger net output: 35 kW.
Max. recommended primary circuit flow rate: 1,5 m^3/h.
Max. recommended secondary circuit flow rate (system): 1,5 m^3/h.
Anti-condensation set temperature (optional): 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature: Tmix = Tset+10°C = Tr.

Regulator
Supply: 230 V - 50/60 Hz.

Pumps
High-efficiency pump: YONOS PARA 25/6 RKA, YONOS PARA 15/6 RKA.

Diverter valves with spring return
Max. working pressure: 10 bar.
Δp max.: 1 bar.

Diverter valve actuator with spring return
Synchronous motor.
Normally closed.
Supply: 230 V - 50/60 Hz.
Opening time: 70–75 s.
Closing time: 5–7 s.

CE

Code			
28535.WYP	3/4" M	1	–
285350WYP	3/4" M without anti-condensation valve	1	–

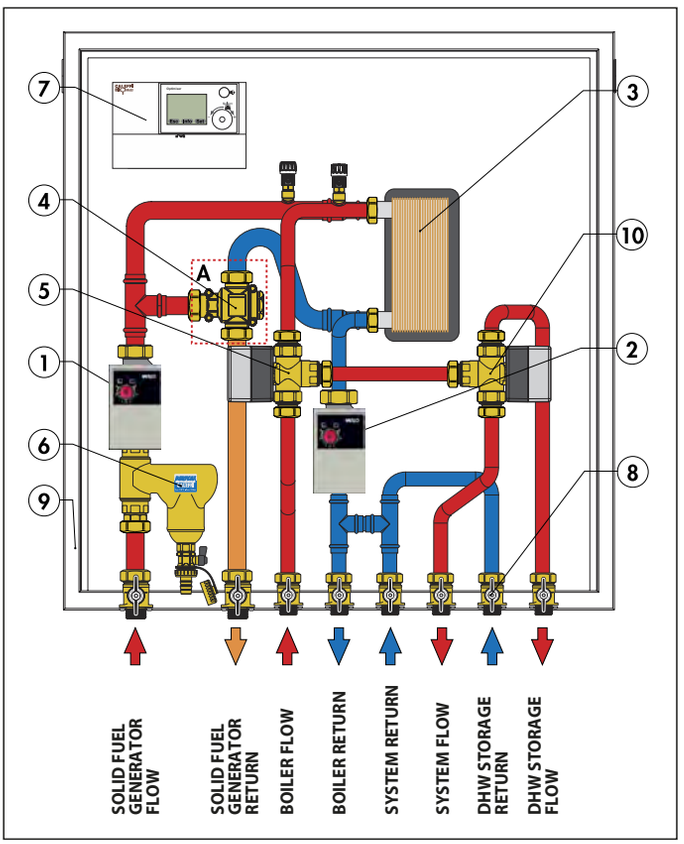
• Code completion

Setting	45°C	55°C	60°C	70°C
•	**4**	**5**	**6**	**7**

For spare thermostats see page 258

Function

Main functional features:
- connection of new solid fuel generators **(both boilers and residential devices, with maximum heat output of 35 kW, both with open or closed vessel)** with other closed vessel generators;
- possibility of **not adding the power outputs of the two generators as described in INAIL (Italy)**;
- automatic system management with a specific digital regulator for heating circuits, domestic water storage and simple solar thermal system;
- built-in anti-condensation system (optional) for solid fuel generator;
- easy access to components for maintenance;
- practical installation thanks to the arrangement in a box.

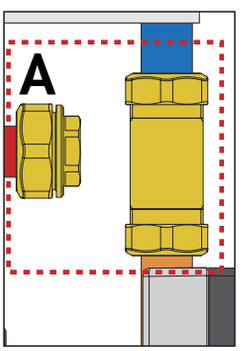


Characteristic components

1) Wilo YONOS PARA 25/6 RKA pump on primary side for solid fuel generator
2) Wilo YONOS PARA 15/6 RKA pump on secondary side (system)
3) Brazed plate heat exchanger
4) Anti-condensation valve (optional)
5) Three-way diverter valve with spring return
6) Dirt separator
7) Digital regulator
8) Shut-off ball valves
9) Box for wall-mounting (h x w x d): 790 x 810 x 160 mm.
10) Three-way diverter valve with spring return for priority on domestic water with storage

A) Code 285350WYP without anti-condensation valve

Code 285350WYP without anti-condensation valve



CONNECTION AND ENERGY MANAGEMENT UNIT
(heating and instantaneous domestic hot water version)

2855

tech. broch. 01229

Connection and energy management unit, heating and instantaneous domestic hot water version. Male threaded connections.
Medium: water, glycol solutions.
Max. percentage of glycol: 30%.
Temperature range: 5–100°C.
Max. working pressure: 10 bar.
Max. heat exchanger net output: 35 kW.
Max. recommended primary circuit flow rate: 1,5 m^3/h.
Max. recommended secondary circuit flow rate (system): 1,5 m^3/h.
Max. domestic hot water heat exchanger net output: 35 kW.
Max. domestic hot water flow rate delivery: 1,1 m^3/h.
Anti-condensation set temperatures (optional): 45°C, 55°C, 60°C, 70°C.
Setting accuracy: ±2°C.
By-pass complete closing temperature: Tmix = Tset+10°C = Tr.

Regulator
Supply: 230 V - 50/60 Hz.

Pumps
High-efficiency pump: YONOS PARA 25/6 RKA, YONOS PARA 15/6 RKA.

Flow switch
Contacts normally open (NO).
Contacts close with increasing flow at: 156 l/h.
Contacts open with decreasing flow at: 108 l/h.

Diverter valve with spring return
Max. working pressure: 10 bar.
Δp max.: 1 bar.

Diverter valve actuator with spring return
Synchronous motor.
Normally closed.
Supply: 230 V - 50/60 Hz.
Opening time: 70–75 s.
Closing time: 5–7 s.

Diverter ball valve for DHW priority
Max. working pressure: 10 bar.
Δp max.: 10 bar.

Diverter ball valve actuator for DHW priority
Synchronous motor
Supply: 230 V (±10%) - 50/60 Hz.
Operating time (angle of rotation 90°): 10 s.

Code			
28555.WYP	3/4" M	1	–
285550WYP	3/4" M without anti-condensation valve	1	–

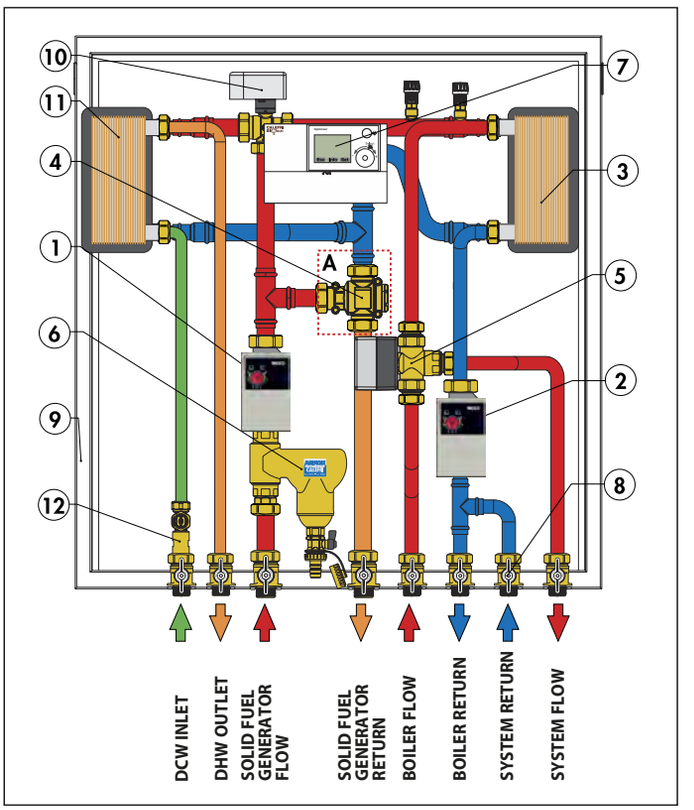
• Code completion

Setting	45°C	55°C	60°C	70°C
•	**4**	**5**	**6**	**7**

For spare thermostats see page 258

Function

Main functional features:
- connection of new solid fuel generators **(both boilers and residential devices, with maximum heat output of 35 kW, both with open or closed vessel)** with other closed vessel generators;
- possibility of **not adding the power outputs of the two generators as described in INAIL (Italy)**;
- automatic system management with a specific digital regulator for heating circuits, instantaneous production of domestic hot water and simple solar thermal system;
- built-in anti-condensation system (optional) for solid fuel generator;
- easy access to components for maintenance;
- practical installation thanks to the arrangement in a box.

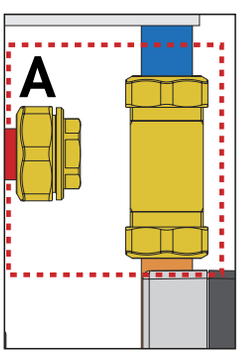


Characteristic components

1) Wilo YONOS PARA 25/6 RKA pump on primary side for solid fuel generator
2) Wilo YONOS PARA 15/6 RKA pump on secondary side (system)
3) Brazed plate heat exchanger for heating
4) Anti-condensation valve (optional)
5) Three-way diverter valve with spring return
6) Dirt separator
7) Digital regulator
8) Shut-off ball valves
9) Box for wall-mounting (h x w x d): 895 x 890 x 160 mm.
10) Three-way three point diverter ball valve for DHW priority
11) Brazed plate heat exchanger for DHW
12) Flow switch

A) Code 285550WYP without anti-condensation valve

Code 285550WYP without anti-condensation valve



DIGITAL REGULATOR FOR SYSTEMS WITH SOLID FUEL GENERATOR

1522

Digital regulator for systems with solid fuel generator.
Supply: 230 V (ac); ±10%, 50/60 Hz.
Protection class: II.
Protection class: IP 40.
Complete with three probes.

Optional probes to choose according to the type of system.

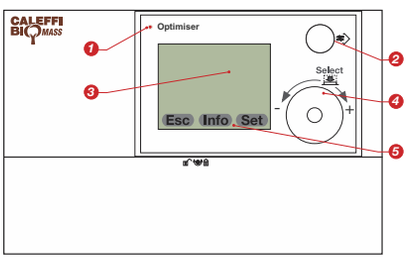
CE

Code		
152200	1	–

Function

The digital regulator makes it possible to combine a solid fuel generator with another type of generator already present in the heating system.
The digital regulator automatically manages the two generators, receiving the signal from the probes and activating the pumps, the motorized diverter valves in the system, according to the heating circuit needs.
Depending on the type and quantity of installed probes, the regulator supports the following system solutions:
- heating;
- production of domestic hot water by means of storage or instantaneous with plate heat exchanger;
- management of inertial water storage in parallel on the heating circuit or alternatively management of an independent solar system and direct inertial water storage.

The regulator has different programs which can be customized by user to several system situations.



Description of controls

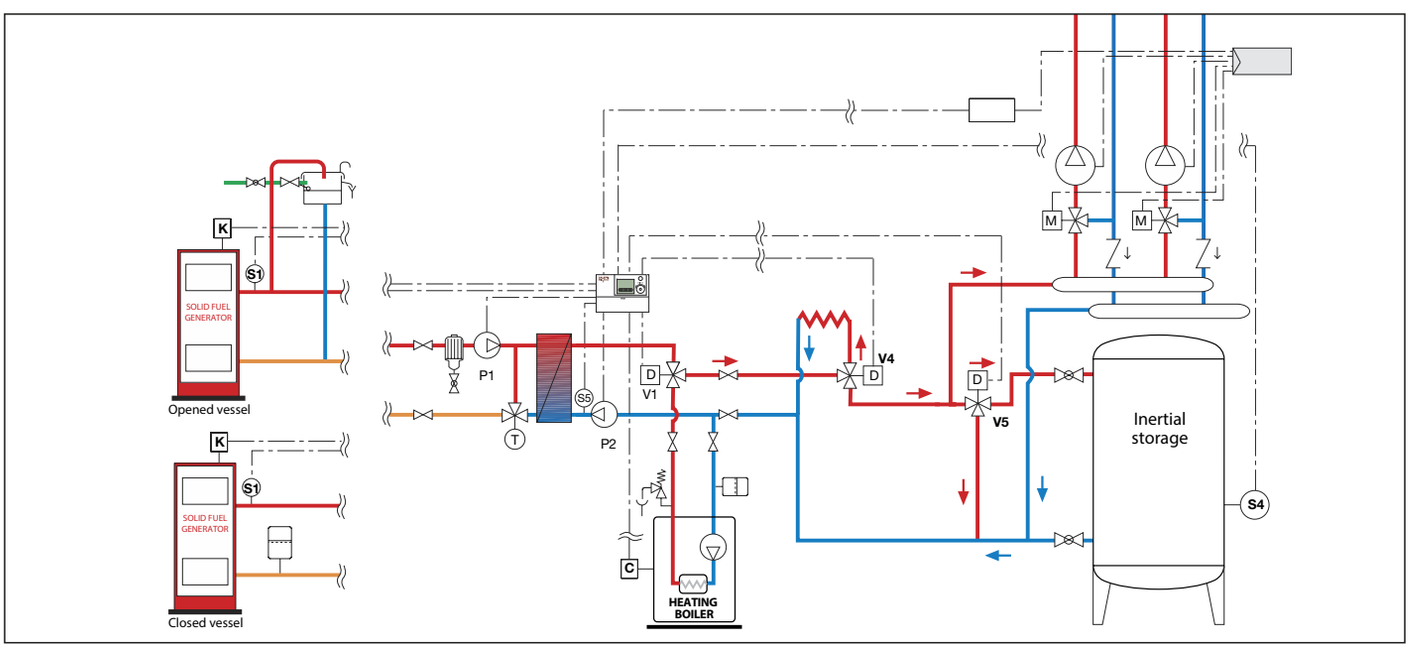
1. Functional status indicator LED.
2. Mini DIN connector on front of panel for PC connection.
3. Display: menu display.
4. Select knob: selection of menu, functions and parameter editing.
5. Function keys.

Program diagrams

The regulator allows the management of a thermal system complete with solid fuel generator, a boiler and an inertial water storage in parallel.

The phases of storage loading and unloading are automatically controlled, according to the system needs, with the consequent activation or deactivation of the boiler and the solid fuel generator.

Depending on the system type, different programs are available to design various functional configurations, both for the heating and the domestic hot water production.



SOLID FUEL GENERATOR-TO-GAS BOILER CONNECTION KIT

The integration kits make it possible to combine solid fuel generators, equipped with domestic water storage or instantaneous heat exchanger, with gas boilers. Depending on the temperature, the domestic water arriving from the solid fuel generator is sent directly to the user or diverted into the boiler for thermal integration.

265
SOLARINCAL

tech. broch. 01163

Function

The thermostat, by means of the probe positioned on the hot water flow from the storage or the DHW heat exchanger built-in inside the solid fuel generator, controls the diverter valve at the kit inlet. Depending on the temperature setting, the valve diverts the water towards the user circuit or the boiler circuit, **with thermal integration**.
A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls the temperature of the water sent to the user.

Code			
265352	3/4"	1	–

For technical details see page 239

Accessories for connection kit 265 series.

Code	
F29525	box with switching 3 contact relay
F29466	Ø 15 mm probe
F29467	pocket for Ø 15 mm probe

262
SOLARINCAL-T.

tech. broch. 01164

Function

A thermostatic diverter valve, at the kit inlet, receives the hot water coming from the storage or the DHW heat exchanger built-in inside the solid fuel generator. Depending on the temperature setting, the valve diverts the water automatically and in a proportional manner towards the user circuit or the **boiler with storage circuit**, **with thermal integration**. The valve modulates the flow rates to optimise the energy contained within the storage or instanly produced by the heat exchanger built-in inside the solid fuel generator and reduces boiler operation times to a minimum. A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls and limits the temperature of the water sent to the user.

Code			
262350	3/4"	1	–

For technical details see page 240

263
SOLARINCAL-T *PLUS*

tech. broch. 01164

Function

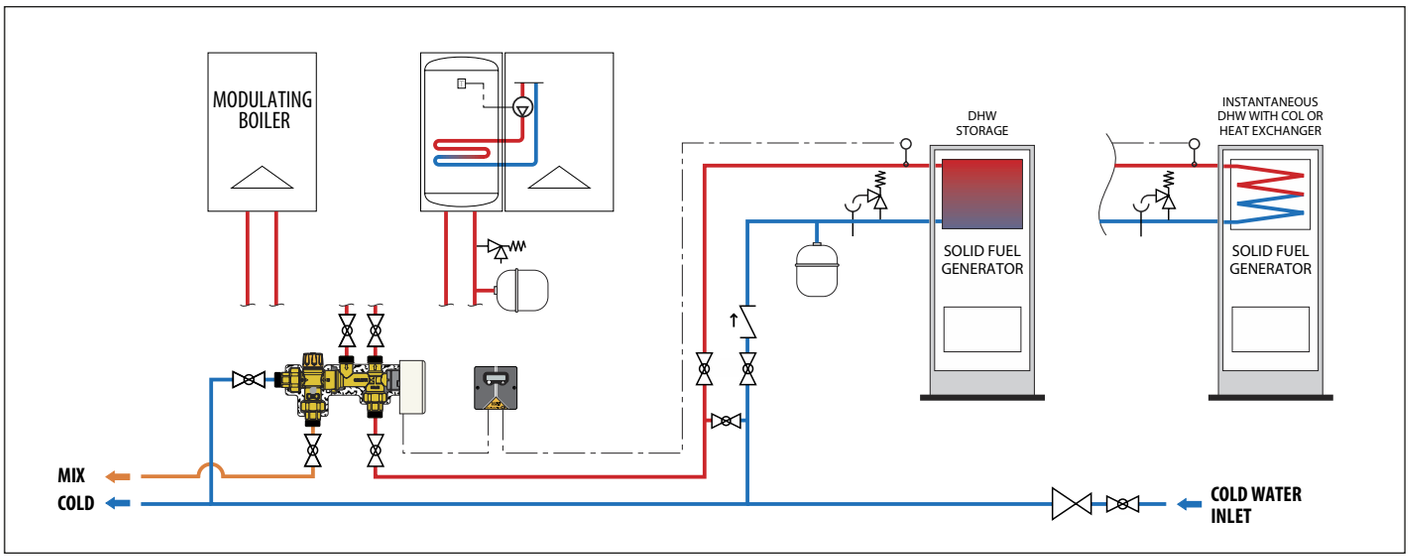
A thermostatic diverter valve, at the kit inlet, receives hot water coming from the storage or the DHW heat exchanger built-in inside the solid fuel generator. Depending on the temperature setting, the valve diverts the water automatically and proportionally towards the user circuit or the **instantaneous boiler circuit**, **with thermal integration**.
The valve modulates the flow rates to optimise the energy contained within the storage or instanly produced by the heat exchanger built-in inside the solid fuel generator and reduces boiler operation times to a minimum. A specific thermostatic control device limits the boiler inlet temperature to prevent it being switched on and off too often, which leads to hunting and irregular operation. A thermostatic anti-scald mixing valve, at the kit outlet, constantly controls the temperature of the water sent to the user.

Code			
263350	3/4"	1	–

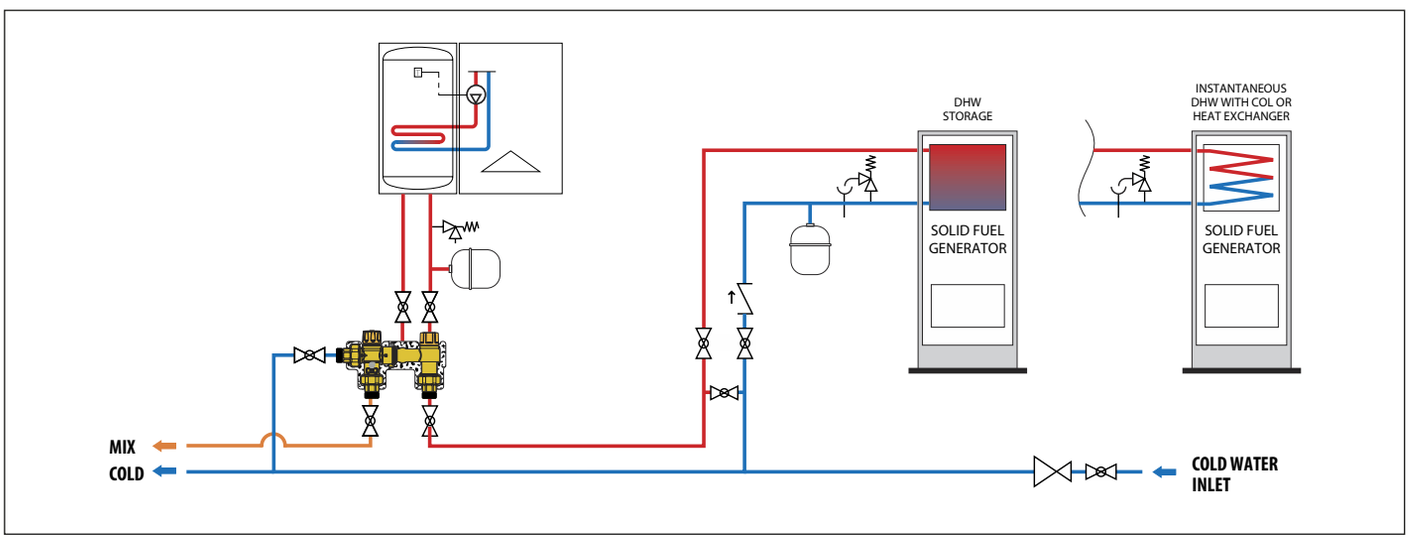
For technical details see page 241

SOLID FUEL GENERATOR-TO-GAS BOILER CONNECTION KIT

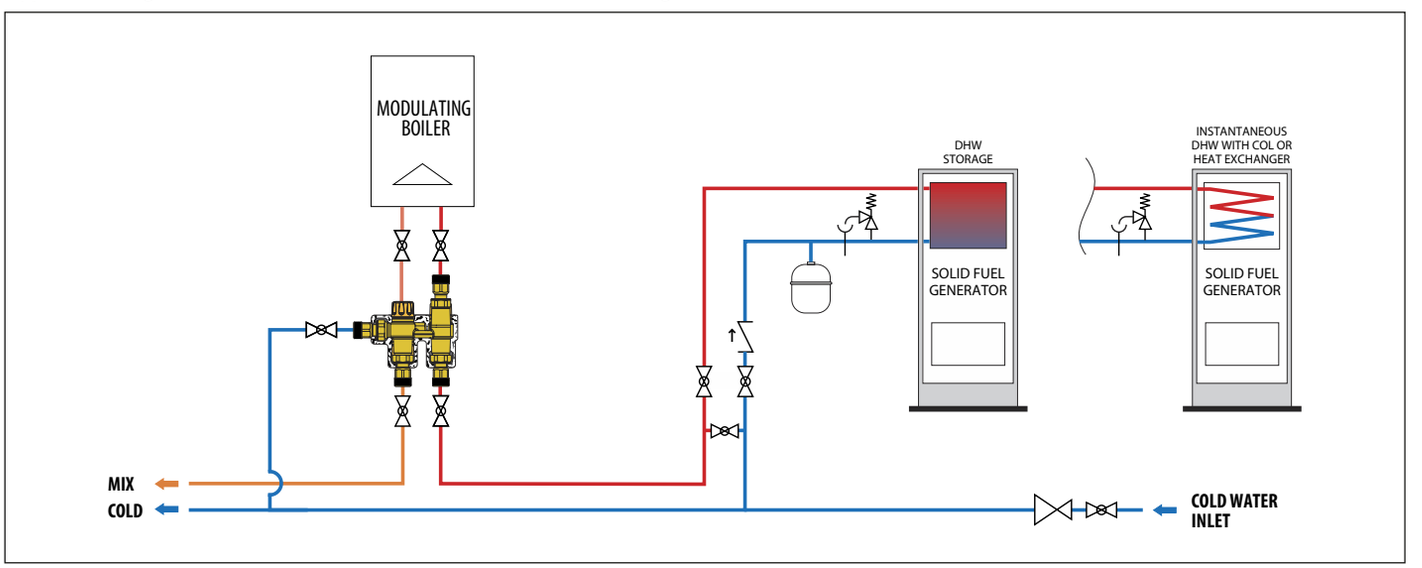
Application diagram of kit SOLARINCAL 265 series with solid fuel generator



Application diagram of kit SOLARINCAL-T 262 series with solid fuel generator

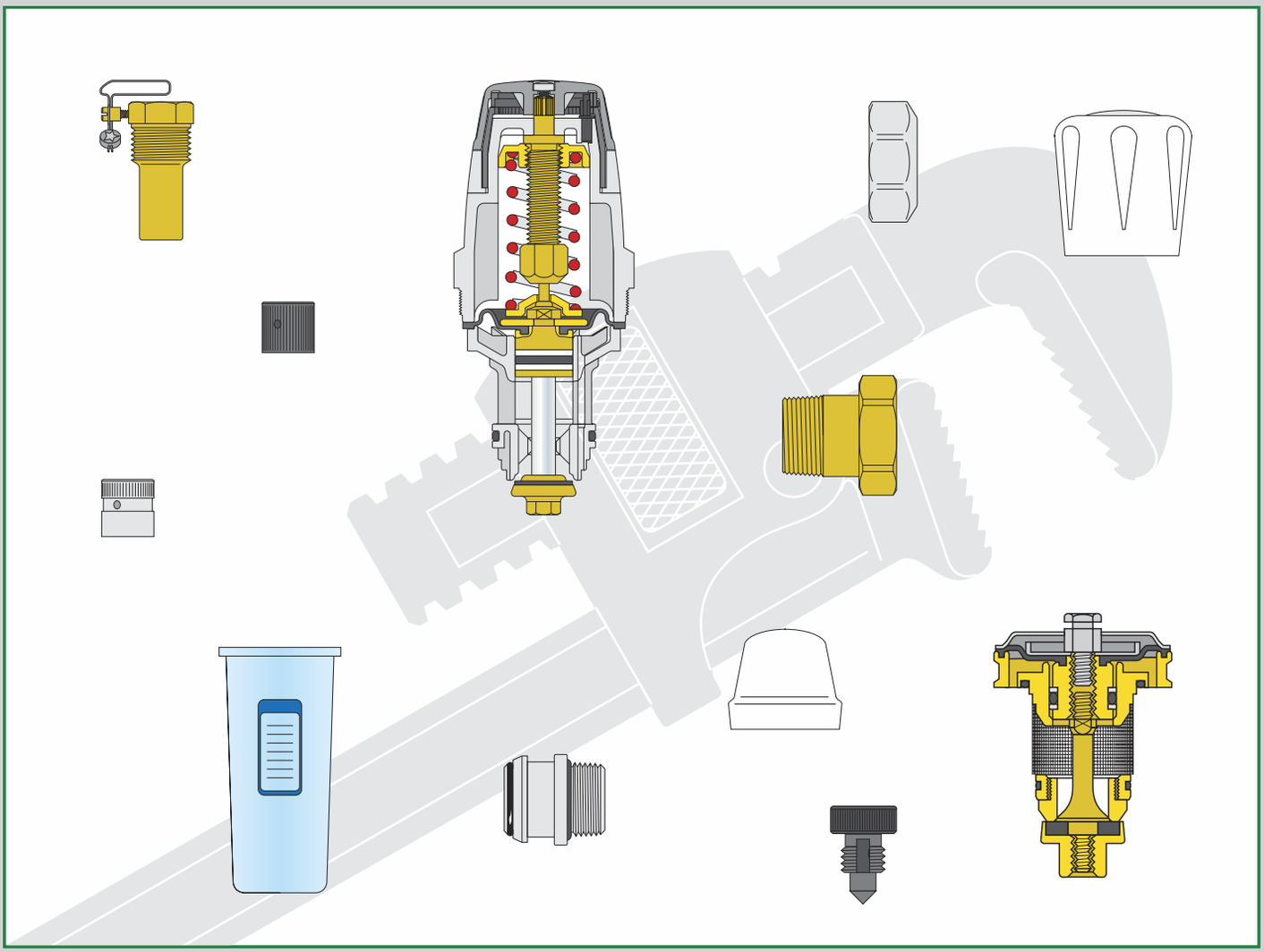


Application diagram of kit SOLARINCAL-T PLUS 263 series with solid fuel generator



SPARE PARTS

This diagram is just an indication



Fuel shut-off valve
Temperature safety relief valve
Filling unit
Air vents
Radiator and lockshield valves
One-pipe radiator valves
Zone valves
Distribution manifolds
Manifolds for radiant panel systems
Pressure reducing valves
Thermostatic mixing valves
Backflow preventers
Fittings with O-Ring seal
Thermostatic mixing valves for solar thermal systems

Fuel shut-off valve

page 10

Brass pocket for fuel shut-off devices.
For 540 (97°C and 98°C) and
541 (98°C) series.

Code	
F51677	1/2"–2"
F31674	DN 65 - DN 80 - DN 100

Temperature safety relief valve

page 11

Pocket for temperature safety relief valves.

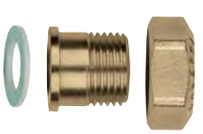
Code
R59089/C

Filling unit

page 14

Union with gasket
and strainer for filling unit
codes 553040 and 553140.

Code	
R59132	1/2"



Union tailpiece, nut and gasket for filling unit codes 553540 and 553640.

Code	
R51131	union tailpiece
R41186	nut
R50058	gasket

Air vents

pages 26, 27

Cap in plastic,
for 5020, 5021 and 5022 series.

Code
R56214

Cap in chrome plated brass,
for 5020, 5021 and 5022 series.

Code
R59119/C

Cap for ROBOCAL valves.

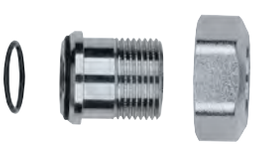
Code
R56142

Radiator and lockshield valves

pages 42, 43, 44, 45, 46, 47, 48, 49, 50, 56

Union with rubber seal,
for 3/8" and 1/2"
radiator and lockshield valves.

Code	
R49176/C	3/8"
R49175/C	1/2"



Tailpiece, nut and O-Ring
for 3/4" radiator and lockshield valves.

Code	
R49094/C	tailpiece with O-Ring
R61008/C	nut
R47021	O-Ring

Components for convertible radiator valves knob.

Code

R36074	knob	3/8″ - 1/2″
R46036	knob	3/4″ - 1″
R36075	cap	3/8″ - 1/2″ - 3/4″ - 1″
R36076	sleeve	3/8″ - 1/2″
R46037	sleeve	3/4″ - 1″

Knob for radiator.

Code

449200	
449210	for new headwork

Cap for lockshield valves.

Code

449300

Adapter for installing thermostatic and thermo-electric actuator with valves 338, 339, 401, 402 and 455 series.

Code

F36077

Spare headwork
for convertible radiator valves.

Code

F36073

Components of HIGH-STYLE convertible radiator valve knob 4001, 4003 and 4004 series.

Code

F46063/C	knob
F36075/C	cap
R36076	sleeve

Cap for lockshield valves
4001, 4003 and 4004 series.

Code

F41436/PC

Pipe-covering/wall-covering shells
for convertible radiator valves
HIGH-STYLE 4001, 4003 and 4004 series.
High chrome finish.

Code

400001	
400011	white finish

Pipe-covering/wall-covering shells
for convertible radiator valves
HIGH-STYLE 4003 and 4004 series
with central connection.
High chrome finish.

Codice

400002	
400012	white finish

Components of convertible radiator valve knob 3380 series.

Code

F36074/C	knob
F36075/C	cap
R36076	sleeve

Cap for lockshield valves 3380 series.

Code

F46003/C

One-pipe radiator valves

pages 58, 59

Tailpiece with probe for one-pipe convertible radiator valve 455 series.

Code	
R49158	1/2″ - Ø 11
R49159	3/4″ - Ø 11
R49160	1″ D - Ø 14
R49161	1″ S - Ø 14

Union nut for one-pipe convertible radiator valve 455 series.

Code	
R41277/C	1/2″ - 3/4″ - 1″

Union complete with gasket for one-pipe radiator valve 4501 series.

Code	
F49113	1/2″
49114	3/4″

Deflector for one-pipe radiator valves 348 and 455 series.

Code	
R46030	for 348 series
R46042	for 455 series (previous version)

Deflector for one-pipe convertible radiator valve 455 series.

Code
R46072

Brass probe for one-pipe radiator valves 4501 and 348 series.
Length 300 mm.

Code
R41036

Knob for one-pipe radiator valves 4501 series.

Code
449400

Fixing screw for knob code 449400.

Code
449500

Zone valves

pages 70, 72, 73, 76, 77

Union with gasket for zone valves 632, 633 and 635 series.

Code	
R69096	1/2″
R69093	3/4″
R69237	1″

Union complete with O-Ring for zone valves 6470, 6480 and 644. series.

Codice	
R69276	1/2″
R69277	3/4″
R69280	1″
R59466	1 1/4″

Distribution manifolds

page 88

Full insulation (front and back) for manifold pair 663 sereis.

Code	Outlet No.
F69466	3
F69467	4
F69468	5
F69469	6
F69470	7
F69471	8
F69472	9
F69473	10
F69474	11
F69475	12
F69476	13

Distribution manifolds

pages 112, 114, 117

Knob for manifolds
670, 671, 668...S1 and 666...S1 series.

Codice
44900

Spare headwork for manifolds
662, 671, 668...S1, 668 and 663 series.

Code	
F19159	for 662 series
F69357	for 671 series
F69590	for 668...S1 series
F69122	for 668, 663 series

Spare flow meters
for manifolds 671 and 668...S1 series.

Code	Flow meter scale (l/min)	
F69358	1–4	for 671 series
F69564	1–5	for 668...S1 series
F69912	0–5	for 664 series

Spare micrometric regulating valve
for manifolds 662..6 and 668 series.

Code	
F69793	for 662..6 series
F69184	for 668 series

Pressure reducing valves

pages 122, 123, 126, 128

Flat seat union with gasket
for pressure reducing valves
5350, 5351, 5360 and 5365 series.

Code	
R59787	1/2″
R59788	3/4″
R59789	1″
R59485	1 1/4″
R59581	1 1/2″
R59487	2″

Transparent housing for strainer
cartridges 5370 series.

Code	
R56155	1/2″
R56163	3/4″ - 1″

Spare cartridge and key
to service strainer and cartridge.
For pressure reducing valves
5350 and 5351 series.

Code	
535004	1/2″ - 3/4″
535006	1″
535017	1 1/4″ (535074-535075)
535007	1 1/4″ - 1 1/2″ - 2″
R52484	key to service strainer and cartridge

Transparent housing for strainer
for 5351 series.

Code
R56276

Strainer for 5351 series.

Code
R59767

Spare cartridge
for pressure reducing valves
5360, 5362, 5365 and 5366 series.

Code	
536004	1/2″
536005	3/4″ - 1″
536007	1 1/4″ - 1 1/2″ (5360)
536008	1 1/2″ (5365) - 2″ - DN 65

Spare cartridge.
For inclined pressure reducing valves
5330, 5331, 5332, 5334, 5335, 5336, 5337,
5338 and 5339 series.

Code
533000

Thermostatic mixing valves

pag. 136

Spare cartridge.
For thermostatic mixing valves 5230 series.

Code	
523005	for 1/2″ - 3/4″ - Ø 22
523006	for 1″ - 1 1/4″ - Ø 28
523008	for 1 1/2″ - 2″

Backflow preventers

pages 152, 153

Union with gasket.
For backflow preventers 574 series.

Code	
R59482	1/2″
R59483	3/4″
R59484	1″
R59485	1 1/4″
R59486	1 1/2″
R59487	2″

Fittings with O-Ring seal

pages 183, 184, 185

Spare O-Ring.
For mechanical fittings 900, 903, 904, 9050, 9057, 9058, 9060, 9067, 9068, 930, 910, 913 and 914 series.
For hydraulic and domestic water systems.

Code	
R97020	Ø 8
R97022*	Ø 10
R97021	Ø 10
R97023	Ø 12
R97024	Ø 14
R47037	Ø 15
R97025	Ø 16
R97026	Ø 18
R97027	Ø 22

** Only for fittings codes 900310, 903010, 904310, 910310, 913010 and 914310.*

Spare O-Ring.
For mechanical fittings 900, 904, 9057, 9058 and 930 series.
For gas and fluid hydrocarbons.

Code	
R97012	Ø 10
R97013*	Ø 10
R97014	Ø 12
R97015	Ø 14
R97016	Ø 15
R97017	Ø 16
R97018	Ø 18
R97019	Ø 22

** Only for fittings codes 900310, 904310, 905730 and 905830.*

Spare clenching ring.
For mechanical fittings 900, 903, 904, 9050, 9057, 9058, 9060, 9067, 9068, 930, 910, 913 and 914.

Code	
R91236	Ø 8
R91237*	Ø 10
R91238	Ø 10
R91239	Ø 12
R41423	Ø 14
R41424	Ø 15
R91240	Ø 16
R41448	Ø 18
R91235	Ø 22
R91241	Ø 28

** Only for fittings codes 900310, 903010, 904310, 910310, 913010 and 914310.*

Thermostatic mixing valves for solar thermal systems

page 236

2523

Spare cartridge.
For thermostatic mixing valves 2523 series.

Code	
252305	1/2″ - 3/4″

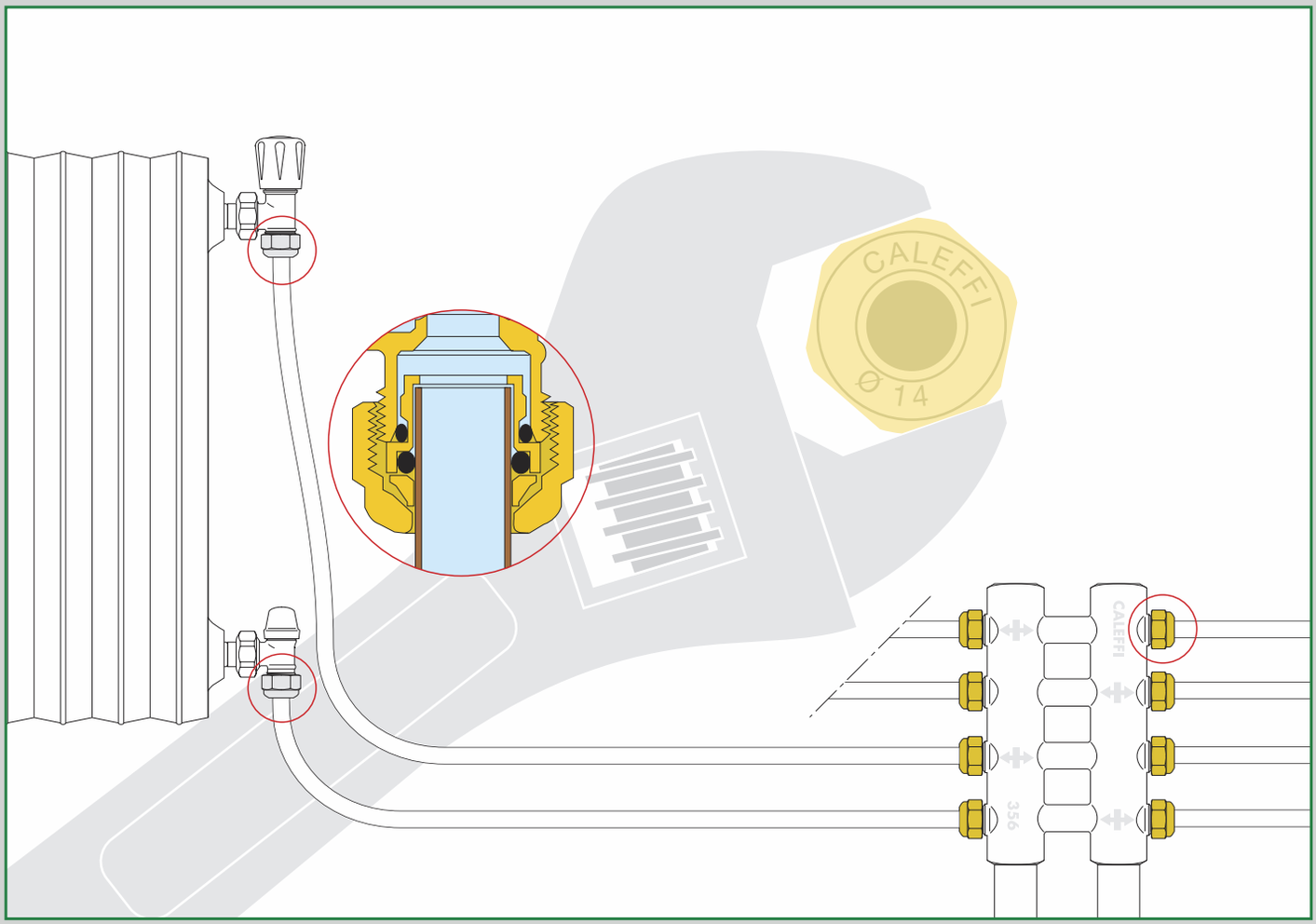
2523

Spare cartridge.
For thermostatic mixing valves 2523 series.

Code	
252306	1″ - 1 1/4″
252308	1 1/2″ - 2″

FITTING COUPLING
PRODUCT DIMENSIONS are available on www.caleffi.com

This diagram is just an indication



CHROME PLATED BRASS FITTINGS

3/8" pipes connection

4383

Compression fitting, **for copper pipes**. With PTFE seal.

Code	
438310	3/8" - Ø 12
438312	3/8" - Ø 14

23 p.1,5 pipes connection

6790 DARCAL

Fitting **for multilayer plastic pipe** with continuous high temperature use.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series.

Code	
679014	23 p.1,5 - Ø 14x2
679024	23 p.1,5 - Ø 16x2
679025	23 p.1,5 - Ø 16x2,25
679044	23 p.1,5 - Ø 18x2

6810 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		$Ø_{inside}$	$Ø_{outside}$
681000	23 p.1,5	7,5– 8	12–14
681002	23 p.1,5	9 – 9,5	14–16
681001	23 p.1,5	9,5–10	12–14
681006	23 p.1,5	9,5–10	14–16
681015	23 p.1,5	10,5–11	14–16
681017	23 p.1,5	10,5–11	16–18
681024	23 p.1,5	11,5–12	14–16
681026	23 p.1,5	11,5–12	16–18
681035	23 p.1,5	12,5–13	16–18
681044	23 p.1,5	13,5–14	16–18

4470

Pre-assembled compression fitting, **for annealed copper**, **hard copper**, **brass**, **mild and stainless steel**. With O-Ring seal.

Code	
447010	23 p.1,5 - Ø 10
447012	23 p.1,5 - Ø 12
447014	23 p.1,5 - Ø 14
447015	23 p.1,5 - Ø 15
447016	23 p.1,5 - Ø 16

4370

Compression fitting, **for annealed copper**, **hard copper**, **brass**, **mild and stainless steel**. With O-Ring seal.

Code	
437010	23 p.1,5 - Ø 10
437012	23 p.1,5 - Ø 12
437014	23 p.1,5 - Ø 14
437015	23 p.1,5 - Ø 15
437016	23 p.1,5 - Ø 16

4380

Compression fitting, **for copper pipes**. With PTFE seal.

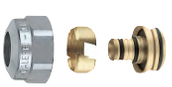
Code	
438010	23 p.1,5 - Ø 10
438012	23 p.1,5 - Ø 12
438014	23 p.1,5 - Ø 14
438015	23 p.1,5 - Ø 15
438016	23 p.1,5 - Ø 16
438018	23 p.1,5 - Ø 18 with metal olive

4450

Compression fitting, **for PE coated copper pipes,** "**Q-tec**™" **KME** series and "**TUBOTECH**™" series. With O-Ring seal.

"Q-tec"™ or "TUBOTECH"™ pipe must be cut and prepared using the specific tool indicated by the manufacturer.

Code	
445014	23 p.1,5 - Ø 14
445016	23 p.1,5 - Ø 16



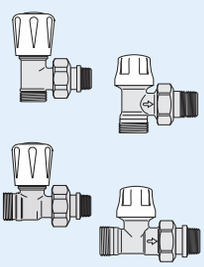
4450

Compression fitting, **for "VIEGA" multilayer pipes**. With O-Ring seal.

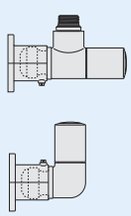
"VIEGA" pipe must be calibrated using the specific tool indicated by the manufacturer.

Code	
445024	23 p.1,5 - Ø 16x2,2

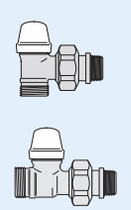
23 p.1,5 M - Ø 18



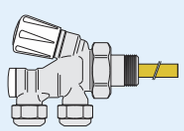
Series: ***338 339 222 223 227***



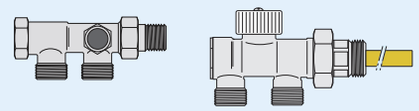
Series: ***4001 4003 4004***



Series: ***340 341 342 343***



Series: ***455 4501 348 452 328***



Series: ***382***

CHROME PLATED BRASS FITTINGS

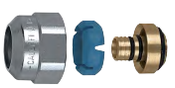
3/4” pipes connection

6792 DARCAL

Fitting **for multilayer plastic pipe** with continuous high temperature use.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series.

Code	
679264	3/4” - Ø 20x2
679265	3/4” - Ø 20x2,25
679266	3/4” - Ø 20x2,5



6815 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		$Ø_{inside}$	$Ø_{outside}$
681502	3/4”	7,5– 8	12–14
681500	3/4”	9 – 9,5	14–16
681501	3/4”	9,5–10	12–14
681506	3/4”	9,5–10	14–16
681515	3/4”	10,5–11	14–16
681517	3/4”	10,5–11	16–18
681524	3/4”	11,5–12	14–16
681526	3/4”	11,5–12	16–18
681535	3/4”	12,5–13	16–18
681537	3/4”	12,5–13	18–20
681546	3/4”	13,5–14	18–20
681555	3/4”	14,5–15	18–20
681556	3/4”	15 –15,5	18–20
681564	3/4”	15,5–16	18–20

4375

Compression fitting, **for copper pipes**. With O-Ring seal.

Code	
437510	3/4” - Ø 10
437512	3/4” - Ø 12
437514	3/4” - Ø 14
437515	3/4” - Ø 15
437516	3/4” - Ø 16
437518	3/4” - Ø 18

4385

Compression fitting, **for copper pipes**. With PTFE seal.

Code	
438512	3/4” - Ø 12
438514	3/4” - Ø 14
438515	3/4” - Ø 15
438516	3/4” - Ø 16
438518	3/4” - Ø 18

4455

Compression fitting, **for PE coated copper pipes,** “**Q-tec**” **KME** series and “**TUBOTECH**” series. With O-Ring seal.

“Q-tec” or “TUBOTECH” pipe must be cut and prepared using the specific tool indicated by the manufacturer.

Code	
445514	3/4” - Ø 14
445516	3/4” - Ø 16
445520	3/4” - Ø 20

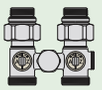
4455

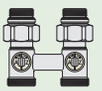
Compression fitting, **for** “**VIEGA**” multilayer pipes. With O-Ring seal.

“VIEGA” pipe must be calibrated using the specific tool indicated by the manufacturer.

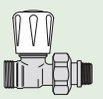
Code	
445524	3/4” - Ø 16x2,2
445546	3/4” - Ø 20x2,8

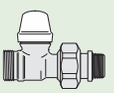
3/4” M - Ø 18





Series: ***3010***
3011
3012
3013
3014
3015





Codes: ***338***452
339452
340452
342452
343452

BRASS FITTINGS

1/2" pipes connection

5914

Fitting **for plastic pipe**.

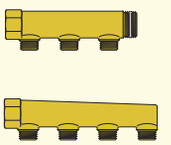
Code		Ø inside	Ø outside
591401	1/2"	8	13
591402	1/2"	10	12
591405	1/2"	10	15
591414	1/2"	11,6	16
591424	1/2"	12	16
591433	1/2"	13	16

58124

Nut and olive or single groove seal in PTFE, **for copper pipe**.

Code		
581240	1/2"	+ single groove Ø 10
581242	1/2"	+ single groove Ø 12
581244	1/2"	+ single groove Ø 14
581245	1/2"	+ single groove Ø 15
581246	1/2"	+ olive Ø 16

1/2" M - Ø 16



Series: ***349*** ***592*** ***598***

23 p.1,5 pipes connection

6791 DARCAL

Fitting **for multilayer plastic pipe** with continuous high temperature use.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series.

Code	
679114	23 p.1,5 - Ø 14x2
679124	23 p.1,5 - Ø 16x2
679125	23 p.1,5 - Ø 16x2,25
679144	23 p.1,5 - Ø 18x2

6800 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		Ø inside	Ø outside
680000	23 p.1,5	7,5– 8	12–14
680002	23 p.1,5	9 – 9,5	14–16
680001	23 p.1,5	9,5–10	12–14
680006	23 p.1,5	9,5–10	14–16
680015	23 p.1,5	10,5–11	14–16
680017	23 p.1,5	10,5–11	16–18
680024	23 p.1,5	11,5–12	14–16
680026	23 p.1,5	11,5–12	16–18
680035	23 p.1,5	12,5–13	16–18
680044	23 p.1,5	13,5–14	16–18

6800 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		Ø inside	Ø outside
680055	23 p.1,5	14,5–15	18–20
680064	23 p.1,5	15,5–16	18–20

4460

Pre-assembled compression fitting, **for annealed copper**, **hard copper**, **brass**, **mild and stainless steel**. With O-Ring seal.

Code		
446010	23 p.1,5	- Ø 10
446012	23 p.1,5	- Ø 12
446014	23 p.1,5	- Ø 14
446015	23 p.1,5	- Ø 15
446016	23 p.1,5	- Ø 16

3470

Compression fitting, **for annealed copper**, **hard copper**, **brass**, **mild and stainless steel**. With O-Ring seal.

Code		
347010	23 p.1,5	- Ø 10
347012	23 p.1,5	- Ø 12
347014	23 p.1,5	- Ø 14
347015	23 p.1,5	- Ø 15
347016	23 p.1,5	- Ø 16

4440

Compression fitting, **for PE coated copper pipes,** "**Q-tec**™" **KME** series and "**TUBOTECH**™" series. With O-Ring seal.

"Q-tec"™ or "TUBOTECH"™ pipe must be cut and prepared using the specific tool indicated by the manufacturer.

Code		
444014	23 p.1,5	- Ø 14
444016	23 p.1,5	- Ø 16

4440

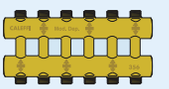
Compression fitting, **for "VIEGA" multilayer pipes**. With O-Ring seal.

"VIEGA" pipe must be calibrated using the specific tool indicated by the manufacturer.

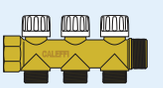
Code		
444024	23 p.1,5	- Ø 16x2,2

23 p.1,5 M - Ø 18

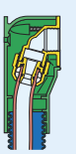
Series: ***350*** ***351*** ***349***



Series: ***356*** ***357*** ***385*** ***161***



Series: ***354***



Series: ***933*** ***940*** ***941*** ***942*** ***943*** ***944*** ***945*** ***946*** ***947*** ***948***

BRASS FITTINGS

3/4" pipes connection

6795 DARCAL

Fitting **for multilayer plastic pipe** with continuous high temperature use.

For a correct use, adjust the multilayer pipe diameter before installation using the Caleffi calibrator 679 series.

Code		
679514	3/4"	- Ø 14 x 2
679524	3/4"	- Ø 16 x 2
679525	3/4"	- Ø 16 x 2,25
679544	3/4"	- Ø 18 x 2
679564	3/4"	- Ø 20 x 2
679565	3/4"	- Ø 20 x 2,25
679566	3/4"	- Ø 20 x 2,5

6805 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		$Ø_{inside}$	$Ø_{outside}$
680507	3/4"	7,5– 8	10,5–12
680502	3/4"	7,5– 8	12 –14
680503	3/4"	8,5– 9	12 –14
680500	3/4"	9 – 9,5	14 –16
680501	3/4"	9,5–10	12 –14
680506	3/4"	9,5–10	14 –16
680515	3/4"	10,5–11	14 –16
680517	3/4"	10,5–11	16 –18
680524	3/4"	11,5–12	14 –16
680526	3/4"	11,5–12	16 –18
680535	3/4"	12,5–13	16 –18
680537	3/4"	12,5–13	18 –20
680544	3/4"	13,5–14	16 –18
680546	3/4"	13,5–14	18 –20
680555	3/4"	14,5–15	18 –20
680556	3/4"	15 –15,5	18 –20
680564	3/4"	15,5–16	18 –20
680505	3/4"	17	22,5

581254

Nut and olive or single groove seal in PTFE, **for copper pipe**.

Code	
581254	3/4" + single groove Ø 14
581256	3/4" + single groove Ø 16
581258	3/4" + olive Ø 18

5915

Fitting **for plastic pipe**.

Code		
591565	3/4"	Ø 16-21
591566	3/4"	Ø 16-22

3475

Compression fitting, **for annealed copper**, **hard copper**, **brass**, **mild and stainless steel**. With O-Ring seal.

Code		
347510	3/4"	- Ø 10
347512	3/4"	- Ø 12
347514	3/4"	- Ø 14
347515	3/4"	- Ø 15
347516	3/4"	- Ø 16
347518	3/4"	- Ø 18

3475..S1

Compression fitting for annealed copper, hard copper, brass, mild steel and stainless steel pipes. With O-Ring seal.
Specific to be used with manifolds 668...S1 series.

Code		
347512S1	3/4"	- Ø 12
347514S1	3/4"	- Ø 14

4445

Compression fitting, **for PE coated copper pipes,** "**Q-tec**'" **KME** series and "**TUBOTECH**'" series. With O-Ring seal.

"Q-tec'" or "TUBOTECH'" pipe must be cut and prepared using the specific tool indicated by the manufacturer.

Code		
444514	3/4"	- Ø 14
444516	3/4"	- Ø 16
444520	3/4"	- Ø 20

4445

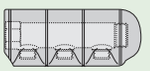
Compression fitting, **for** "**VIEGA**" multilayer pipes. With O-Ring seal.

"VIEGA" pipe must be calibrated using the specific tool indicated by the manufacturer.

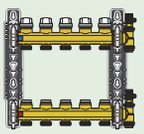
Code		
444524	3/4"	- Ø 16x2,2
444546	3/4"	- Ø 20x2,8

3/4" M - Ø 18

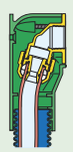
Series: ***592***



Series: ***650***



Series: ***662***
6620
6621
663
6630
6631
666...S1*
667...S1*
668...S1*
669
657



Series: ***933***
940
941
942
943
945
946

**** Do not use with copper pipe fittings 347 and 5812 series***

1" pipes connection

6806 DARCAL

Self-adjustable diameter fitting **for single and multilayer plastic pipes**.

Code		$Ø_{inside}$	$Ø_{outside}$
680687	1"	17,5	25
680605	1"	19,5	25

1" M - Ø 25

Series: ***941***
942

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice.

The products in this catalogue have been designed, manufactured and factored by Caleffi in accordance with the requirements of EN ISO 9001 standard.
Factored products, listed by series in the index, are clearly identified by the “green dot ●".

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