

HW limit switch box series

Control unit that combines a limit switch box and solenoid valve into a single device. Maximum efficiency with minimum customer effort.

Features

- Twin shaft design
- Self lubricating bushings
- Optional integrated solenoid valve for maximum efficiency and compactness
- 3 or 5 way pneumatic valve with single or double coil configurations
- Aluminium enclosure with thick powder coat paint and integrated NAMUR mounting kit
- Up to 3 cable entries either metric or imperial
- Multiple indicator options

- Easy wiring through the terminal PCB board
- Optional position transmitter boards
- Optional Profibus communication board for complete process handling

Approvals

EAC, UL general purpose

SIL certificate: Up to SIL 2 approval on request

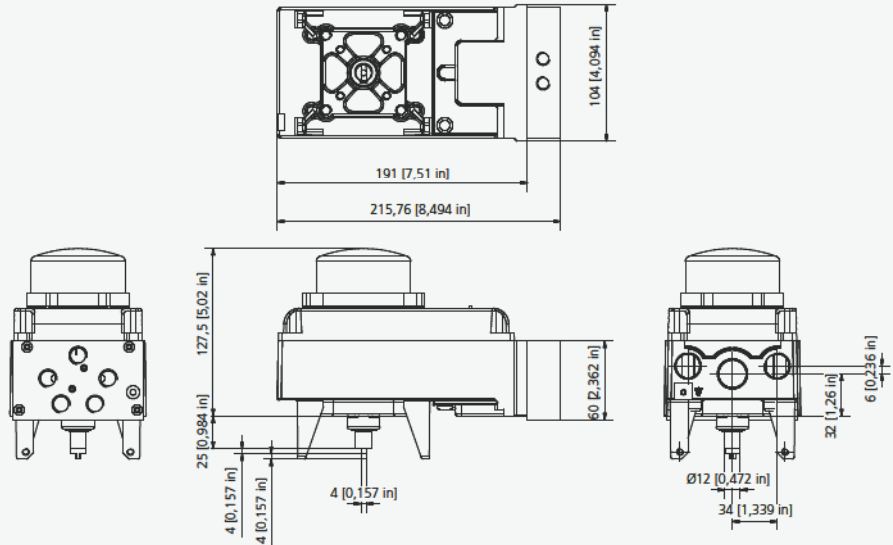
Protection rating: IP66 / 67
Nema 4 4X on request

Temperature:

-60 to +105 °C (-76 to +221 °F) standard temperature range



HW limit switch box



HW limit switch box series

Nomenclature

HW N1 2 2 2 - 3 T W 9 7 P 3 0 A

Box

HW = Aluminium control unit enclosure

Switch

01 = SPDT electromechanical switches, silver plated contacts
 03 = SPDT electromechanical switches, gold plated contacts
 1F = DPDT electromechanical switches silver plated contacts
 70 = NAMUR inductive proximity sensor P+F type NJ2-V3-N, NAMUR NC 2 wire (for Ex'ia')
 73 = Inductive proximity P+F NBB2-V3-E2, 3 wire PNP NO
 C4 = Magnetic SPDT hermetically sealed switch (suitable for Ex'ia')
 C8 = Magnetic DPDT hermetically sealed switch (suitable for Ex'ia')
 N1 = Magnetic proximity SPDT hermetically sealed switch, silver plated snap acting contacts
 N3 = Magnetic proximity SPDT hermetically sealed switch, gold plated snap acting contacts
 N4 = Magnetic proximity DPDT hermetically sealed switch, silver plated snap acting contacts
 DB = 3 position control system for single acting actuators, 5/3 way, double coil sov
 DA = 3 position control system for double acting actuators, 5/3 way, double coil sov
 A1 = Asi board with 2 SPDT switches and solenoid valve control
 T0 = 4-20 mA analog position transmitter
 H0 = 4-20 mA HART transmitter Exia IIC certified
 PG = Profibus communication board

See additional information and options on pages 14-19

Switch Quantity

0 = No switches for digital limit position feedback
 1 = 1 switch or sensor (for DB, DA switch options)
 2 = 2 switches or sensors
 3 = 3 switches or sensors
 4 = 4 switches or sensors

Terminals

0 = Screw type terminals with sov connection
 2 = Blue screw type terminals with sov connection

Coating

0 = Black polyester powder coating (only for aluminium)

Cable Entries

1 = 2 cable entries 1/2" NPT
 2 = 2 cable entries M20x1.5
 3 = 2 x 1/2" NPT + 1 x 3/4" NPT cable entries
 4 = 2 x M20 x 1.5p + 1 x M25 x 1.5p cable entries

Visual Position Indicator

0 = Red and green visual position indicator

See additional information and options on page 11

Approval

W = Weather proof limit switch box
 G = EAC certified box for Russian market, with RTN permit
 U = UL certified box

See additional information and options on page 13

Marking

0 = Ordinary location
 A = CULUS normally location

See additional information and options on page 13

IP Protection rating

1 = Weather proof IP66/IP67
 7 = Nema 4 X

Temperature

S = Ambient temperature range: -10 to +50 °C (+14 to +122 °F)
 7 = Ambient temperature range: -10 to +40 °C (+14 to +104 °F)
 5 = Ambient temperature range: -5 to +50 °C (+23 to +122 °F)
 A = Ambient temperature range: -20 to +80 °C (-4 to +176 °F) without solenoid valve

Material and solenoid valve selection

3 = Aluminium heavy duty body and cover
 A = Aluminium heavy duty body and cover die-cromated, 5/2 way aluminium solenoid valve, single coil
 B = Aluminium heavy duty body and cover die-cromated, 5/2 way aluminium solenoid valve, double coil
 C = Aluminium heavy duty body and cover die-cromated, 5/3 way aluminium solenoid valve, blocked centre, double coil (DB switch option)
 D = Aluminium heavy duty body and cover die-cromated, 5/3 way aluminium solenoid valve, exhaust centre, double coil (DA switch option)

Coil Rating

0 = No solenoid valve available
 2 = Coil rating: 12 VDC 2, 3 W
 3 = Coil rating: 24 VDC 2, 3 W
 4 = Coil rating: 24 VAC 2, 8 VA
 5 = Coil rating: 110 VAC 2, 8 VA
 6 = Coil rating: 230 VAC 2, 8 VA
 1 = Ex'ia' certified pilot valve coil rating: 6 VDC
 7 = Ex'ia' certified pilot valve coil rating: 12 VDC
 8 = Ex'ia' certified pilot valve coil rating: 24 VDC
 9 = Ex'n' certified pilot valve coil rating: 24 VDC
 A = Ex'n' certified pilot valve coil rating: 110 VAC

Pneumatical Connection

0 = No pneumatic connections
 A = 1/4" NPT/F pneumatic connections