

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
- Three or five way pneumatic valve with single or double coil configurations
- Aluminium enclosure with thick powder coat paint and integrated NAMUR mounting kit
- Up to three 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

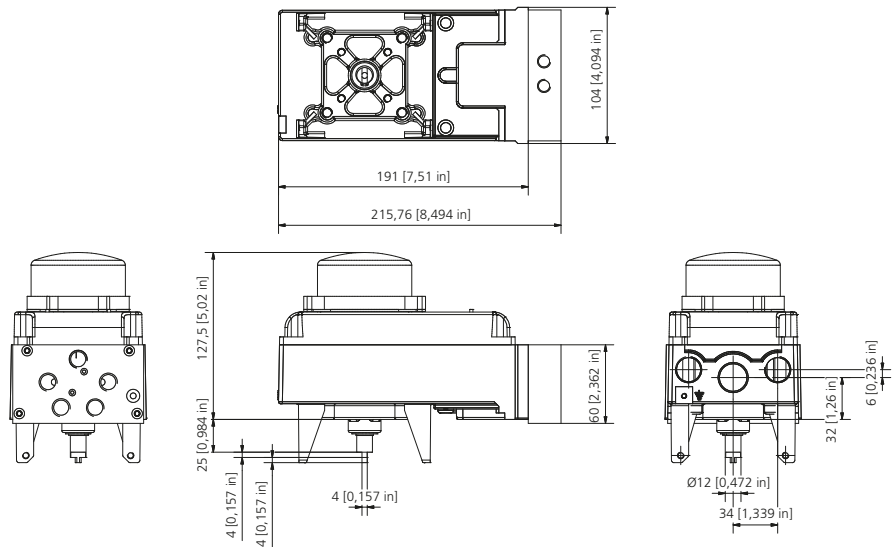
Protection rating: IP66/67
NEMA 4 4X on request

Temperature:

-10 to +50 °C (+14 to +122 °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 = Electro mec. switch, SPDT, silver contacts, up to SIL3 (Switch qty: 2,3,4; Terminal digit: 0; temp digit: 5)
 03 = Electro mec. switch, SPDT, gold contacts, up to SIL3, Exia ready, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 1F = Electro mec. switch, DPDT, silver contacts, up to SIL3 (Switch qty: 1,2; Terminal digit: 0; temp digit: 5)
 06 = Electro mec. switch, SPDT, gold contacts, up to SIL3, Exia ready, (Switch qty: 1,2; Terminal digit: 0; temp digit: 5)
 C4 = Magnetic reed SPDT, hermetically sealed, up to SIL3, Exia ready, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 C8 = Magnetic reed DPDT, hermetically sealed, up to SIL3, Exia ready, (Switch qty: 1,2; Terminal digit: 0; temp digit: 5)
 N1 = Mag. proximity SPDT silver hermetically sealed up to SIL3, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 N3 = Mag. proximity SPDT gold hermetically sealed up to SIL3, Exia ready, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 N4 = Mag. proximity DPDT silver hermetically sealed up to SIL3, (Switch qty: 1,2; Terminal digit: A; temp digit: 5)
 32 = Inductive proximity NBN4-12GM40-Z0 2 wires, (Switch qty: 1,2; Terminal digit: 0; temp digit: 5)
 73 = Inductive proximity NBB2-V3-E2, PNP NO, up to SIL3, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 75 = Inductive proximity IS5026, 2 wire, NO /NC, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 70 = Inductive NAMUR proximity NI2-V3-N, 2 wire, up to SIL3, Exia ready, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
 62 = Inductive NAMUR proximity SJ 3,5 SN, 2 wire, 8V DC, up to SIL3, Exia ready, (Switch qty: 1,2,3; Terminal digit: 0, A; temp digit: 5)
 T0 = 4-20mA analog position transmitter, (Switch qty: 0; Terminal digit: A; temp digit: 5)
 T1 = 4-20mA analog position transmitter + electro mec. switch, SPDT, silver contacts, (Switch qty: 1,2; Terminal digit: A; temp digit: 5)
 H0 = 4-20mA HART position transmitter, Exia ready, (Switch qty: 0; Terminal digit: A; temp digit: 5)
 PG = Profibus communication card

See additional information and options on pages 14-19

Switch Quantity

0 = no switches for digital feedback
 1 = N° 1 switch (related to switch description)
 2 = N° 2 switch (related to switch description)
 3 = N° 3 switch (related to switch description)
 4 = N° 4 switch (related to switch description)

Terminals

0 = Pre-wired terminal strip with additional extra poles for solenoid valve connection (for switches 01, 03, 1F, 06 C4, C8, N1, N3, 32, 70, 62, 73, 75)
 A = Pre-wired terminals without solenoid valve connection (for switches N4, 62, T0, T1, H0)

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 4X

Temperature

5 = Ambient temperature range: -5 to +50 °C (+23 to +122 °F)

For optional HW limit switch box without solenoid pilot valve please follow SF, SS temperature options.

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 pneumatical connections