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

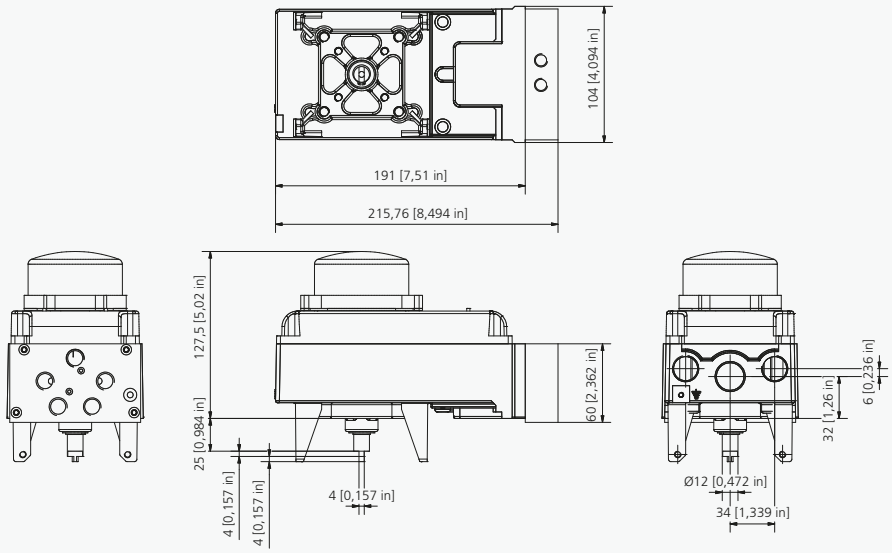
EAC, UL general purpose

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



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 tp SIL3 (Switch qty: 2,3,4; Terminal digit: 0; temp digit: 5)
03 = Electro mec. switch, SPDT, gold contacts, up tp SIL3, Exia ready, (Switch qty: 1,2,3,4; Terminal digit: 0; temp digit: 5)
1F = Electro mec. switch, DPDT, silver contacts, up tp SIL3 (Switch qty: 1,2; Terminal digit: 0; temp digit: 5)
06 = Electro mec. switch, SPDT, gold contacts, up tp 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 NJ2-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 = ¼" NPT/F pneumatical connections