

SY - SW limit switch box series

Limit switch box for heavy duty explosionproof applications in the oil & gas and petrochemical industries, both on-shore and off-shore.

Features

- Twin shaft design
- Metallic self lubricating bushings
- Copper free aluminium or 316 stainless steel housing option for maximum corrosion protection
- Up to 4 cable entries either metric or imperial
- Multiple indicator options
- Easy wiring through the terminal PCB board
- High volume for the maximum wiring comfort
- Optional position transmitter board
- Suitable for arctic environments

Approvals

ATEX, IECEx, EAC, CCOE, INMETRO, NEPSI:

Ex II 2GD Ex db IIC T4/T5/T6 Gb
 Ex tb IIIC T140/T110/T110°C Db
 Ta: -60 °C ≤ Ta ≤ 105 °C / 80 °C / 60 °C

UL:

Class I Division 1 Groups B,C,D Division 2 Groups A, B, C, D
 Class II Division 1 Groups E,F,G Division 2 Groups F, G

SIL certificate: Up to SIL 3 certified by TÜV

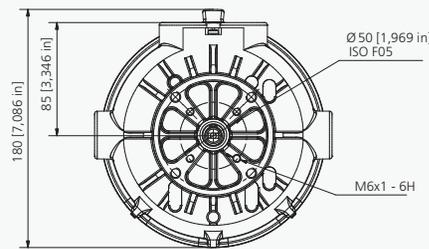
Protection rating: IP 66 / 68 10 m for 48 hours
 Nema 4 4X on request

Temperature:

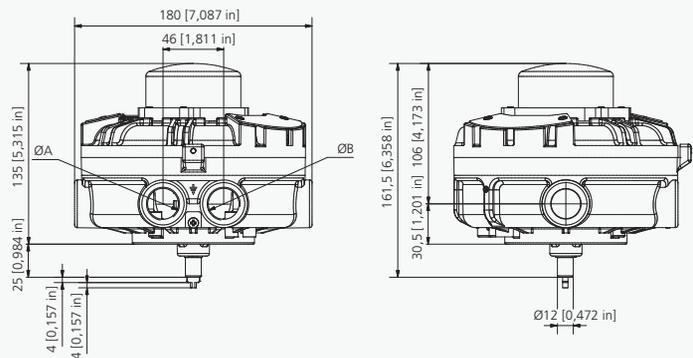
-20 to +80 °C (-4 to +176 °F) as standard temperature range
 -60 to +105 °C (-76 to +221 °F) available on request



SY limit switch box



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Nomenclature

SY N1 2 0 0 - 1 0 X 2 3 A 4

Box

SY = Copper free aluminium enclosure
SW = Stainless steel 316 enclosure

Switch

01 = SPDT electro-mechanical switch silver plated contacts
1F = DPDT electro-mechanical switch silver plated contacts
C4 = SPDT magnetic hermetically sealed reed switch
C8 = DPDT magnetic hermetically sealed reed switch
N1 = SPDT magnetic hermetically sealed silver plated snap acting contacts
N4 = DPDT magnetic hermetically sealed silver plated snap acting contacts
32 = Inductive proximity sensor model NBN4-12GM40-Z0 2 wire
73 = Inductive proximity sensor model NBB2-V3-E2, 3 wire PNP NO
T0 = 4-20 mA position transmitter
H0 = 4-20 mA HART position transmitter Atex EEx ia IIC T6 / T4 certified
P0 = Partial Stroke Test device with either remote or local magnetic key activation

See additional information and options on pages 14-19

Switch Quantity

2 = 2 switches
4 = 4 switches
6 = 6 switches

Terminals

0 = Screw type terminals with sov connection
A = Screw type terminals
E = Cage clamp terminals with sov connection (for low temperature)
D = Cage clamp terminals (for low temperature)

Coating

0 = Black powder coating (SY Series)
E = Electro polish finishing (SW Series)

Cable Entries

1 = 2 cable entries 1/2" NPT
2 = 2 cable entries M20 x 1.5p
T = 4 cable entries 1/2" NPT
U = 4 cable entries M20 x 1.5p

Visual Position Indicator

0 = 3D plastic visual position indicator red and green
2 = 3-position indicator (T-port 180 deg. Blocked centre)
A = 3-position indicator (L-port)
B = 3-position indicator (T-port 180 deg.)
T = 3D stainless steel position indicator

See additional information and options on page 11

Approval

X = ATEX and IECEx certified box
D = ATEX and IECEx certified box with SIL2 approval
E = ATEX and IECEx certified box with SIL3 approval
G = EAC certification for Russian market
I = INMETRO certification for Brazilian market
N = NEPSI certification for Chinese market
J = CCOE certification for Indian market
U = UL certified box
W = Weather proof

* SIL2 / SIL3 options available on request

See additional information and options on page 13

Marking

0 = Standard location
2 = Certification marking: Ex II 2GD Exd IIC
7 = cULus Class 1/2 Div1
8 = cULus Class 1/2 Div 1/2 with (with switches code: C4,C8,N1,N3)

See additional information and options on page 13

IP Protection rating

3 = Weather proof IP66 / IP68
7 = Nema 4 and 4X

Temperature

A = Ambient temperature range: -20 to + 80 °C (-4 to +176 °F)
L = Ambient temperature range: -40 to + 80 °C (-40 to +176 °F)
P = Ambient temperature range: -60 to + 80 °C (-76 to +176 °F) for switch codes C4 and C8

Material

4 = Copper free aluminium heavy duty body and cover (SY series)
6 = 316 stainless steel heavy duty enclosure (SW series)