

## SF - SS - SB limit switch box series

Multi purpose limit switch box for safe area or Intrinsically Safe applications.

### Features

- Twin shaft design
- Self lubricating bushings
- Copper free aluminium or 316 stainless steel housing option for maximum corrosion protection
- 2 cable entries either metric or imperial
- Multiple indicator options
- Easy wiring through the terminal PCB board
- Position transmitter board optional
- Suitable for arctic environments

### Approvals

#### ATEX, IECEx, EAC, CCOE:

**SF-SS series (ATEX & IECEx)**  
 Ex II 1GD Ex ia IIC T4...T6 Ga  
 Ex ia IIIC T95°C...T120°C Da  
 -60°C<Ta<+105°C

**SB series (ATEX only)**  
 Ex II 2GD Ex ia IIC T6...T4 Gb  
 Ex ia IIIB T44°C...T108°

**UL:** Class I Division 2 Groups A, B, C, D  
 Class II Division 2 Groups F, G

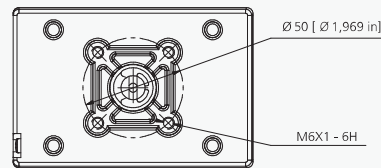
**SIL certificate:** Up to SIL 3 certified by TÜV

**Protection rating:** IP 66 / 67  
 Nema 4 4X on request

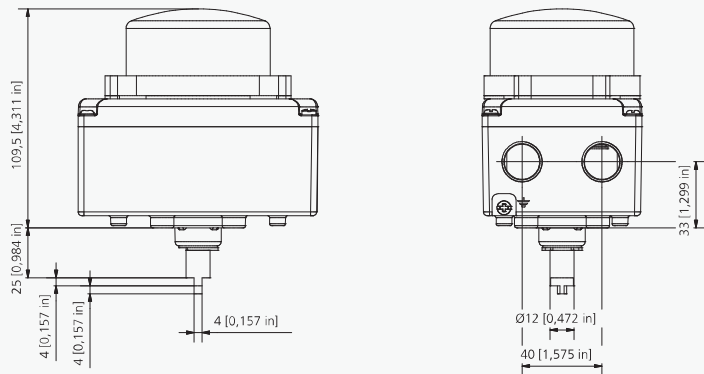
**Temperature:**  
 -20 to +80 °C (-4 to +176 °F) standard temperature range  
 -60 to +105 °C (-76 to +221 °F) available on request



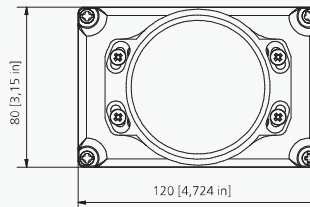
### SF limit switch box



### SS limit switch box



### SB limit switch box



## SF - SS - SB limit switch box series

### Nomenclature

SB N1 2 0 0 - 1 1 X 1 1 A 4

#### Box

SB = Aluminium body with polycarbonate cover  
SF = Aluminium enclosure  
SS = 316 stainless steel enclosure

#### Switch

01 = SPDT el.mech. switch silver plated contacts  
03 = SPDT el.mech. switch gold plated contacts (for Ex'ia')  
1F = DPDT el.mech. switch silver plated contacts  
C4 = SPDT magnetic hermetically sealed reed switch (for Ex'ia' low temperature)  
C8 = DPDT magnetic hermetically sealed reed switch (for Ex'ia' low temperature)  
N1 = SPDT magnetic hermetically sealed silver plated snap acting contacts  
N3 = SPDT magnetic hermetically sealed gold plated snap acting contacts  
N4 = DPDT magnetic hermetically sealed silver plated snap acting contacts  
62 = Inductive proximity NAMUR sensor SJ3,5-SN 2 wire NC logic (for Ex'ia' low temperature safety function)  
70 = Inductive proximity NAMUR sensor NJ2-V3-N 2 wire NC logic (for Ex'ia')  
73 = Inductive proximity sensor model NBB2-V3-E2, 3 wire PNP NO, 10-30 VDC, 0-100 mA  
86 = Inductive proximity NAMUR sensor model NJ4-12GK-SN 2 wire NC logic (for Ex'ia' safety function)  
T0 = 4-20 mA position transmitter  
H0 = 4-20 mA HART position transmitter Atex Ex ia IIC T6 / T4 certified

**See additional information and options on pages 14-19**

#### Switch Quantity

2 = 2 switches  
3 = 3 switches

#### Terminals

0 = Screw terminals with extra poles for solenoid valve connection  
2 = Blue screw type terminals with extra poles for sov connection (for Ex'ia')  
A = Screw terminal strip  
8 = Blue cage clamp terminals (for low temperature and switch codes 62, 63, H0)  
E = Cage clamp terminals (for low temperature)

#### Coating

0 = Black powder coating  
1 = Blue powder coating  
E = Electro polished finishing (on SS series)

#### Cable Entries

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

#### Visual Position Indicator

0 = 3D plastic visual position indicator red and green  
1 = No visual position indicator  
T = 3D stainless steel position indicator

**See additional information and options on page 11**

#### Approval

W = Weather proof  
X = ATEX and IECEx certified box  
A = ATEX certified box  
B = ATEX certified box and SIL2 approval  
C = ATEX certified box and SIL3 approval  
G = EAC certification for Russian market  
J = CCOE certification for Indian market  
U = UL certified box

\* SIL2 / SIL3 options available on request

**See additional information and options on page 13**

#### Marking

0 = Standard location  
1 = Intrinsically safe certification  
9 = cULus Class 1/2 Div 2 (with switches code: C4, C8, N1, N3)

**See additional information and options on page 13**

#### IP Protection rating

1 = Weather proof IP66 / IP67  
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 code C4  
U = Ambient temperature range: -20 to +40 °C (-4 to +104 °F)  
B = Ambient temperature range: -20 to +70 °C (-4 to +158 °F)

#### Material

2 = Die-cast aluminium heavy duty body and polycarbonate cover (on SB series)  
4 = Copper free aluminium (on SF series)  
6 = 316 stainless steel heavy duty enclosure (on SS series)