



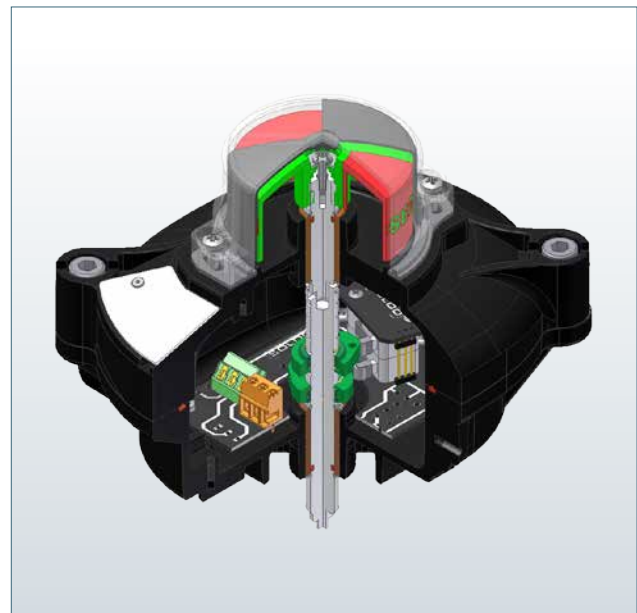
## SX - SH limit switch box series

Heavy-duty limit switch boxes, designed for hazardous areas, provide a visual and electrical remote position feedback on automated valves.

The SX matches the Exd IIB T6 standards. The SH is our solution reaching Exd IIB + H2 T6 requirements. SX and SH, thanks to spare pass through terminals, the three cable entries either metric or imperial and different visual position indications, provide a highly customizable solution meeting a wide range of applications. These include, but are not limited to, oil and gas (both on-shore and off-shore) and petrochemical industries.

### Features

- Twin shaft design, ensuring a complete sealed device: the shaft is split in two parts, each fitted and sealed into the body and cover for the best weather insulation even during opening operation
- Enhanced flexibility of electrical feedbacks options
- Up to three cable entries available in different sizes
- Easy wiring through the terminal PCB board
- NOVA V3™ switch option ensures extreme durability and high power switching capabilities
- 4-20 mA position transmitter options
- Captive bolts on the screwed lid



*Linking the Process  
with the Control Room*

# Product Specification

## Technical Data:

### Materials

- Die-cast aluminum body and cover with polyester powder coating
- Stainless steel fasteners and shafts

### Approvals:

ATEX, IECEx, EAC, CCOE, INMETRO

Ex II 2GD Ex d IIB T4/T5/T6 Gb (SX series)

Ex II 2GD Ex d IIB + H2 T4/T5/T6 Gb (SH series)

Ex tb IIIC T135/T100/T85°C Db

Ta: -20 °C ≤ Ta ≤ 105 °C / 75 °C / 60 °C

### UL:

Class I Division 1 Groups 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 / 67

### Cable entries options:

Up to three cable entries for metric and imperial sizes

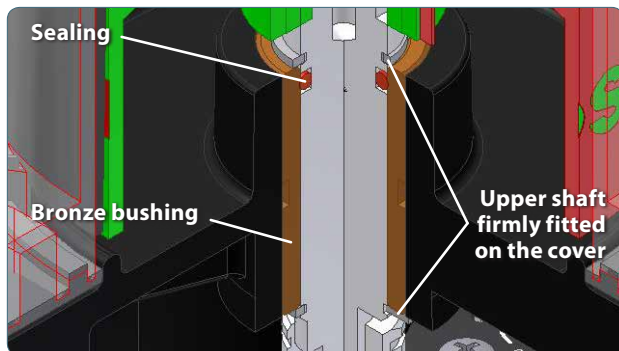
### Temperature:

-20 °C +80 °C as standard temperature range (depending on switch selection)

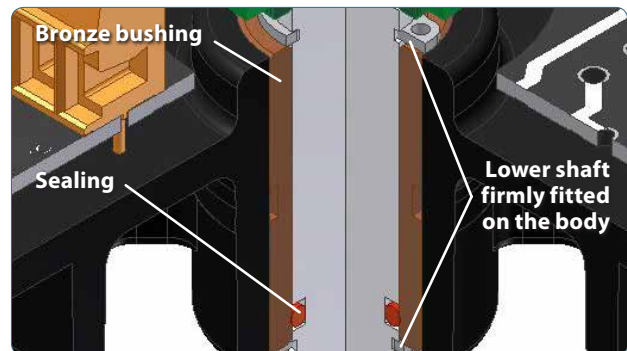
-40 °C +105 °C available on request

## Twin shaft design features

- The shaft is split into two parts; both parts fitted and sealed respectively on body and cover
- During opening and closing the grease remains in place ensuring a safe and smooth operation
- Self lubricant bushing on both sides aligning shafts and hedging in o-rings
- The indicator is hardly connected to the upper shaft, avoiding any matching and aligning issue
- The interior electrical components are completely protected against atmosphere environments



Upper shaft



Lower shaft

## Soldo switch and sensors options:

### NOVA V3™ N1

- Proximity hermetically sealed snap acting SPDT switch
- High power loop: rating up to 5A @ 250 VAC - 5A @ 28 VDC
- Temperature range -50 °C , +95 °C



### NOVA V3™ N3

- Proximity hermetically sealed snap acting SPDT switch
- High power loop: rating up to 1A @ 250 VAC - 1A @ 30 VDC
- Temperature range -50 °C , +95 °C



### NOVA V3™ N4

- Proximity hermetically sealed snap acting DPDT switch
- High power loop: rating up to 5A @ 250 VAC - 5A @ 28 VDC
- Temperature range -50 °C , +95 °C



### REED C4

- Proximity hermetically sealed reed SPDT switch
- Inert gas contact chamber
- Rating up to 1A @ 24 VDC
- Temperature range -60 °C , +100 °C



### REED C8

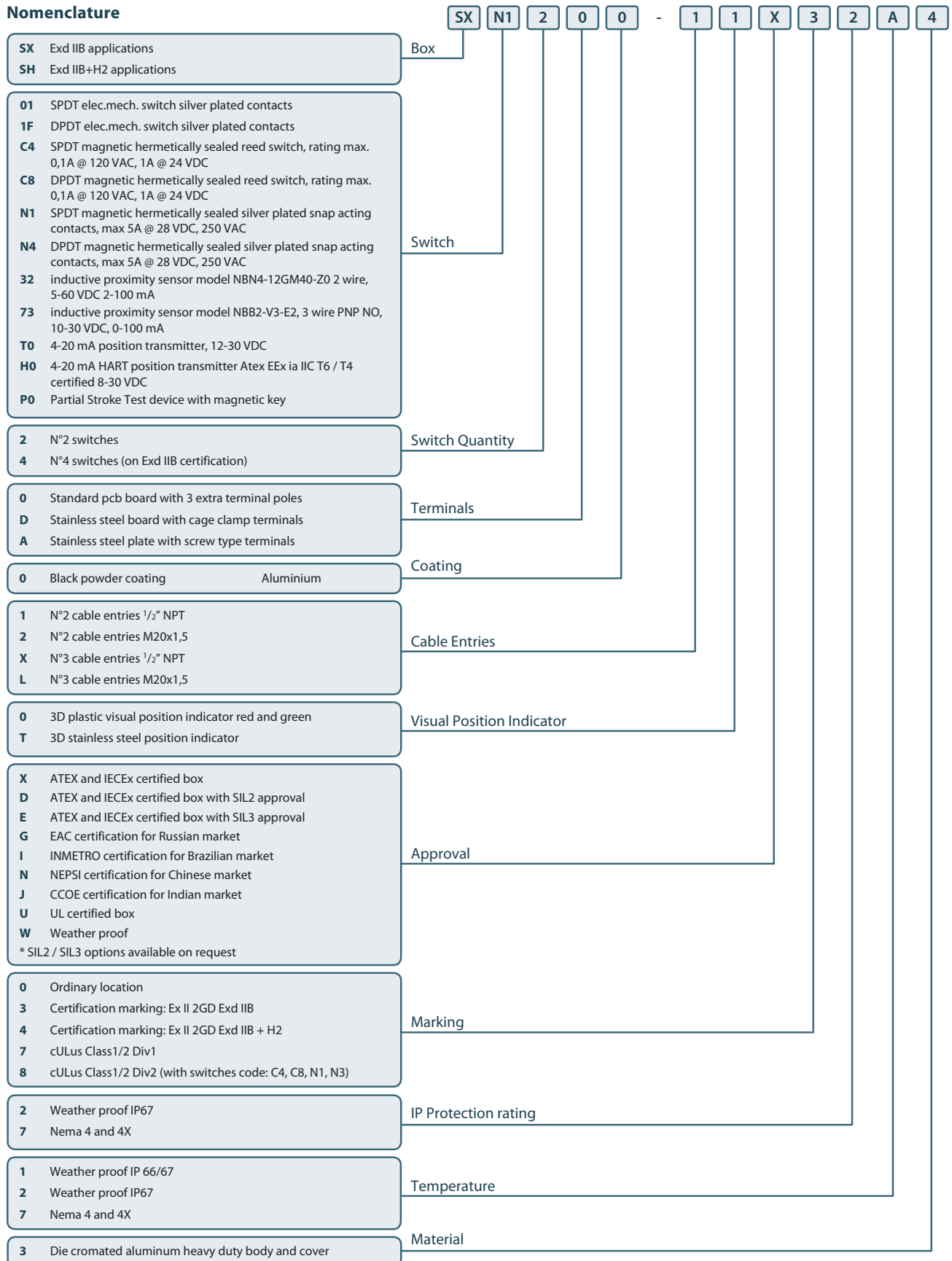
- Proximity hermetically sealed reed DPDT switch
- Inert gas contact chamber
- Rating up to 1A @ 24 VDC
- Temperature range -60 °C , +100 °C



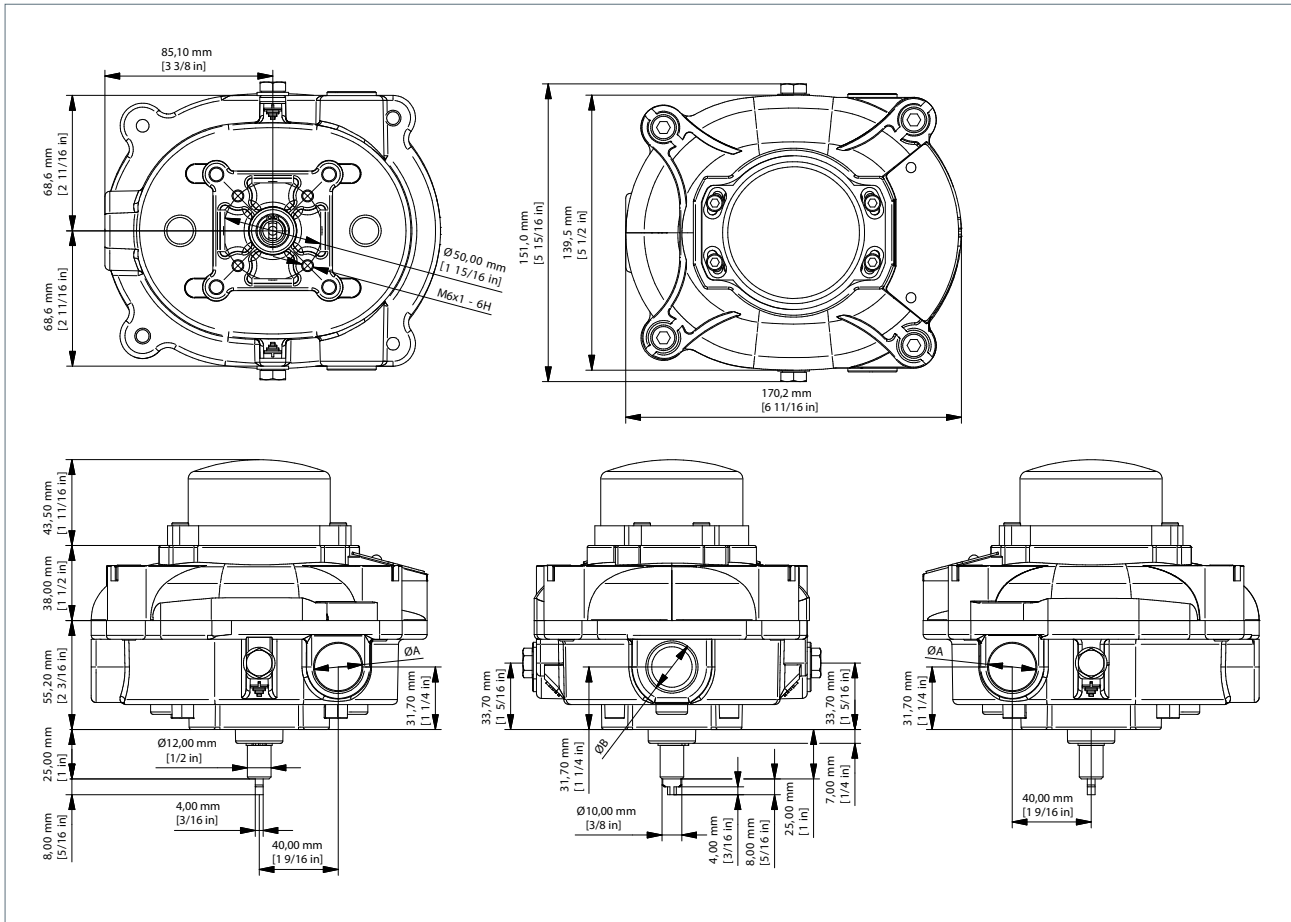
More options available on request.

# Product Ordering Matrix

## Nomenclature



## Dimensional Data



### Cable entry dimensions

| Code | Entry A+A     | Entry B       |
|------|---------------|---------------|
| 1    | n.2 1/2" NPT  | -             |
| 2    | n.2 M20 x 1,5 | -             |
| X    | n.2 1/2" NPT  | n.1 1/2" NPT  |
| L    | n.2 M20 x 1,5 | n.1 M20 x 1,5 |



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