



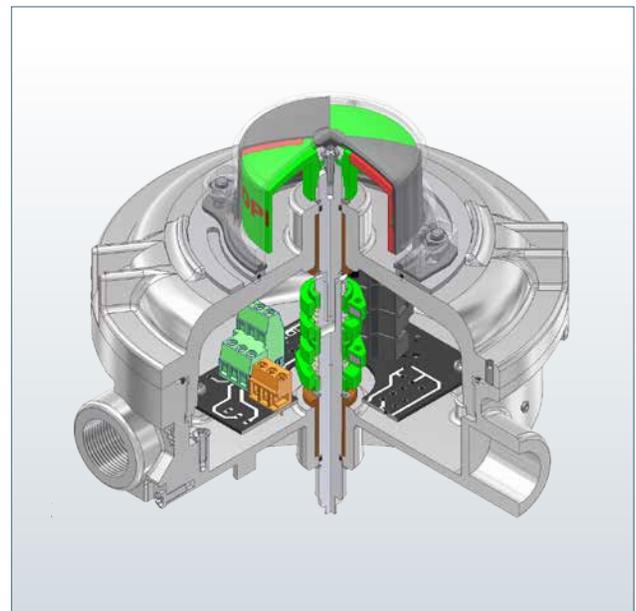
## SY - SW limit switch box series

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

Available in either copper free aluminum or 316 stainless steel, the explosionproof enclosure matches Exd IIC T6 standards. The SY - SW limit switch box series, thanks to its large inner volume, is able to host up to 6 switches and spare pass through terminals. The availability of four cable entries, either metric or imperial, 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 into two parts, each fitted and sealed into the body and cover for the best weather insulation even during opening operation
- Suitable for arctic application, down to -60 °C
- Enhanced flexibility of electrical feedback options
- Up to four cable entries available in different sizes
- Enhanced corrosion resistance thanks to copper free aluminum body and cover with polyester powder coating
- 316 stainless steel housing for extremely hostile and corrosive environments
- 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
- Single tool opening design, allowing the operator to unscrew the lid by hand after removing the lock
- Partial stroke test device option



Linking the Process  
with the Control Room

# Product Specification

## Technical Data:

### Materials

- Copper free aluminum body and cover with polyester powder coating
- AISI 316 Stainless steel body and cover with electro-polished finishing
- Stainless steel fasteners and shafts

### Approvals:

ATEX, IECEx, EAC, CCOE, INMETRO, NEPSI

Ex II 2GD Ex d 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 up to 10 meters for 48 hours

### Cable entries options:

Up to four cable entries for metric and imperial sizes

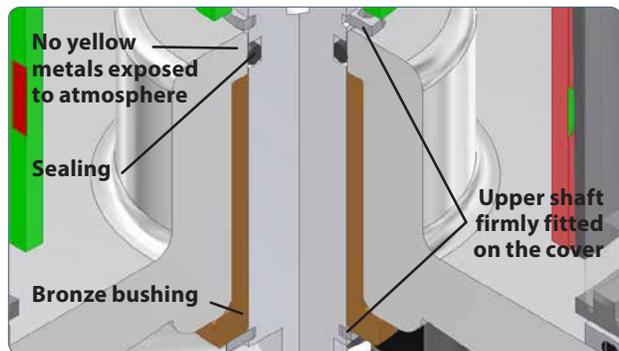
### Temperature:

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

-60 °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

### 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

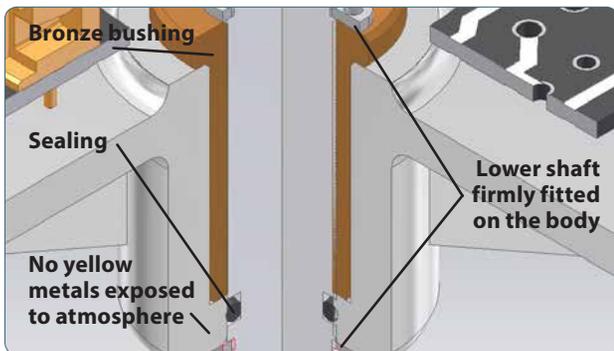
**REED C4**

- 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.

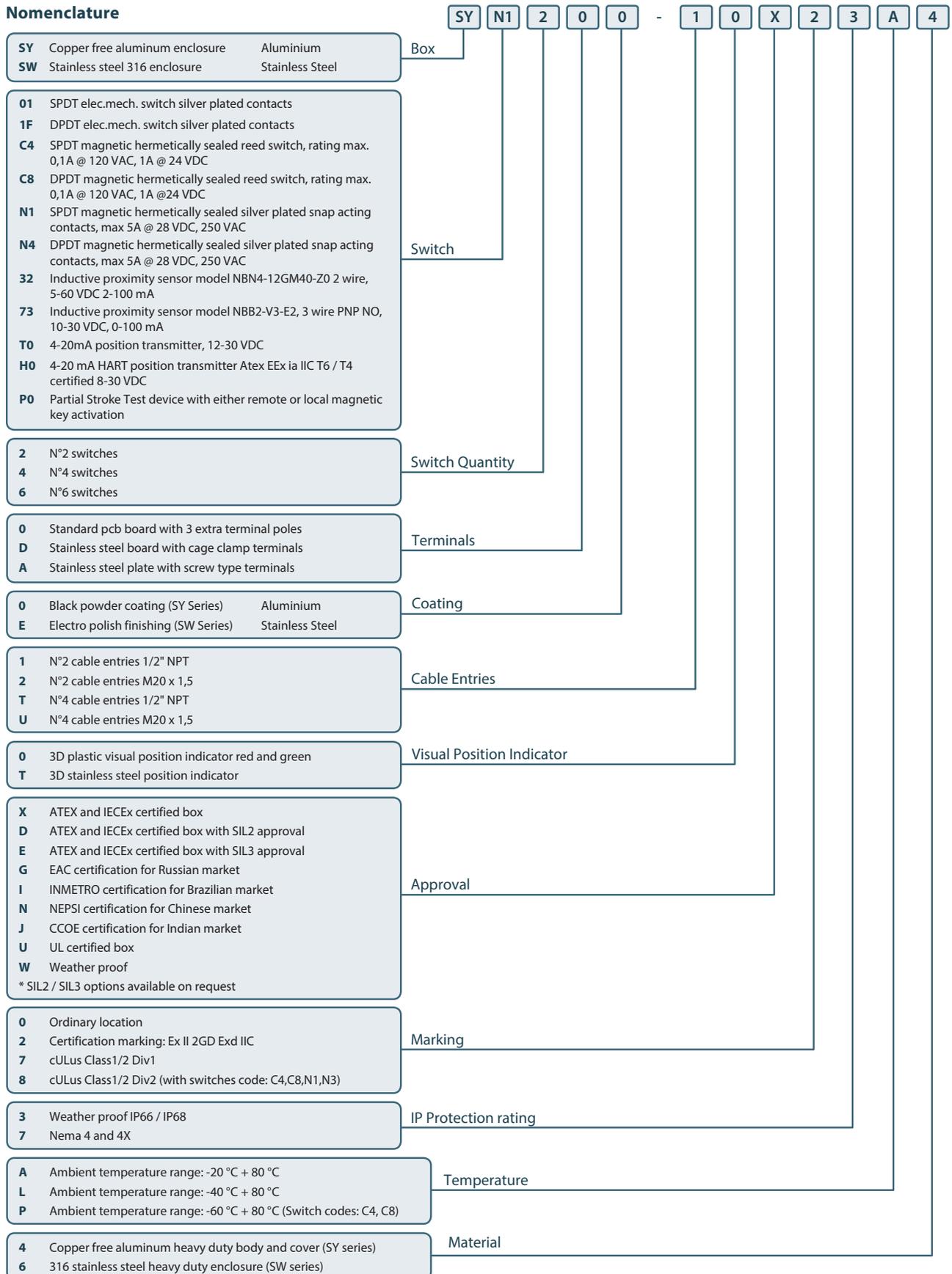


Lower shaft

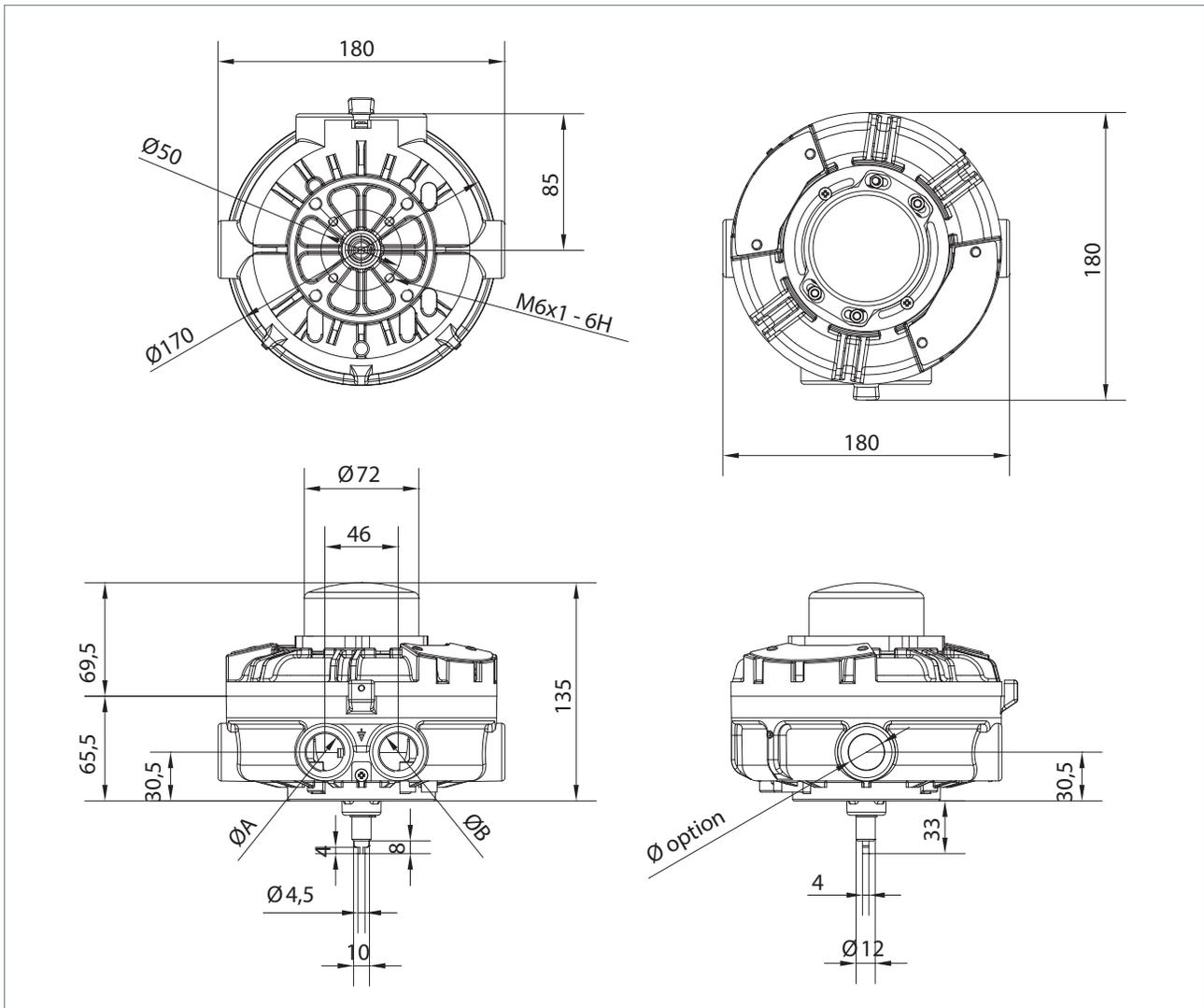


# Product Ordering Matrix

## Nomenclature



## Dimensional Data



### Cable entry dimensions

Code	Entry A	Entry B
1	1/2" NPT	1/2" NPT
2	M20 x 1,5	M20 x 1,5
7	3/4" NPT	3/4" NPT
8	M25 x 1,5	M25 x 1,5

