SP - SM limit switch box series

Compact limit switch box, designed not only for the industrial market, but for indoor applications in hazardous areas.
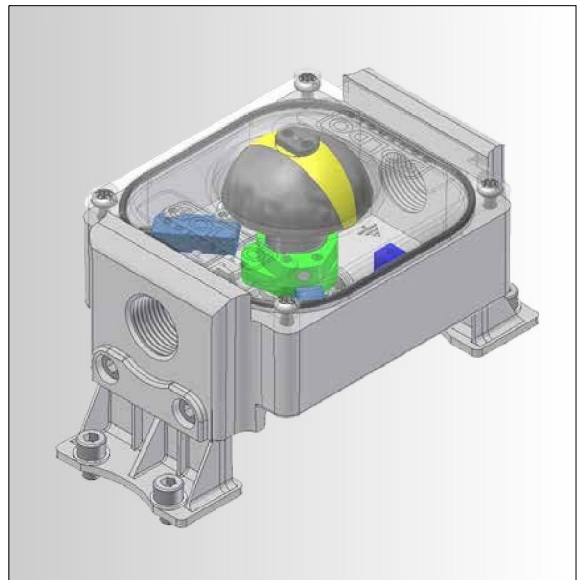
Available in either glass reinforced resin or nickel plated aluminum, with flat lid or 3D indicator.

The SP is a corrosion resistant device, able to satisfy the needing in water treatment and desalination plants, both SP and SM, can also match the Ex ia IIC T6 standards with the integral intrinsically safe certification, covering enclosure and electrical components inside.

With these devices, we are providing a ready to mount solution, thanks to the integrated Namur mounting kit.

Features

- Glass reinforced resin enclosure with transparent polycarbonate lid, ensuring a device totally unaffected by corrosion, in salty and humid atmosphere.

- One cable entry as standard, for the SP series, and two cable entries, for the SM, either metrics or imperial.

- Enhanced strength on the composite enclosure, with a thick molding and durable threaded cable entries.

- Easy wiring through the terminal PCB board

- NOVA V3™ switch option ensures extreme durability and high power switching capabilities

- ASI communication protocol board

- Integrated mounting kit for Namur actuators

Product Specification

Technical Data:

Materials

- Glass reinforced resin body with transparent polycarbonate cover (SP series)
- Nickel plated aluminum body with transparent polycarbonate cover (SM series)
- Stainless steel fasteners

Approvals
ATEX, EAC
Ex II 2GD Ex ia IIC T4/T5/T6
Ex ia IIIB T44°C.......T108°C Db IP6*
Ta: -15 °C ≤ Ta ≤ 80 °C

SIL certificate:
Up to SIL 2 certified by TÜV

Protection rating:
IP 65

Cable entries options:
One cable entry M20 or 1/2″ NPT (SP standard)
Two cable entry M20 or 1/2″ NPT (SM)T
Temperature:
-15 °C +80 °C as standard temperature range
(depending on switch selection)

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 (usable for Exia protectio)
- Proximity hermetically sealed snap acting SPDT switch
- rating up to 1A @ 250VAC - 1A @ 30 VD (Exia rating max: 0,1A @ 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 (usable for Exia protection)
- Proximity hermetically sealed reed SPDT switch
- Inert gas contact chamber Rating up to 1A @ 24 VDC (Exia rating max: 0,1A @ 30 VDC)
- Temperature range -60 °C , +100 °C

More options available on request.
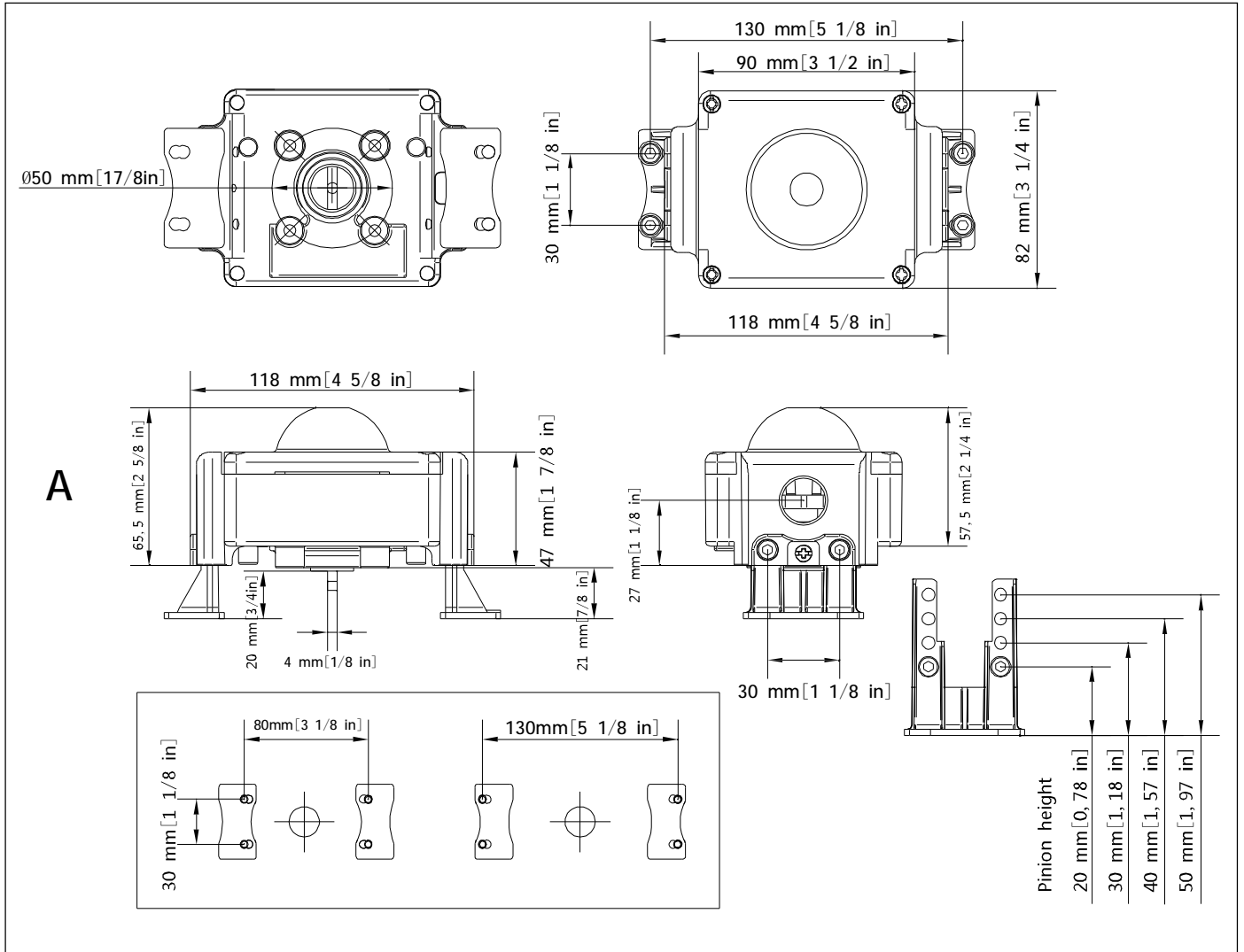

SP with flat visual position indicator

SP with 3D visual position indicator

Product Ordering Matrix

Nomenclature

SP	N1	2	H	0	-	D	H	W	0	0	R	1

Box

SP	Glass reinforced plastic body with polycarbonate cover
SM	Aluminum body with polycarbonate cover

Switch

01	SPDT el.mech. switch silver plated contacts
03	SPDT el.mech. switch gold plated contacts (for Exia cert)
1F	DPDT el.mech. switch silver plated contacts
C4	SPDT magnetic hermetically sealed reed switch, rating max. 0,1A @ 120 VAC, 1A @ 24 VDC (for Exia cert, low temp)
N1	SPDT magnetic hermetically sealed silver plated snap acting contacts, max 5A @ 28 VDC, 250 VAC
N3	SPDT magnetic hermetically sealed gold plated snap acting contacts, max 1A @ 30 VDC, 250 VAC (for Exia cert)
70	Inductive proximity NAMUR sensor NJ2-V3-N 2 wire NC logic (for Exia cert)
73	Inductive proximity sensor model NBB2-V3-E2, 3 wire PNP NO, 10-30 VDC, 0-100 mA
A1	ASI protocol board, two switches for digital inputs, one output for solenoid valve control

Switch Quantity

2	N°2 switches

Terminals

H	Standard pcb board
L	Standard pcb board with blue poles for Exia certification

Coating

0	Black plastic enclosure (on SP series)
N	Nickel plated aluminum body (on SM series)

Cable Entries

D	N°1 cable entries 1/2" NPT (standard on SP series)
E	N°1 cable entries M20 x 1,5 (standard on SP series)
1	N°2 cable entries 1/2" NPT
2	N°2 cable entries M20 x 1,5

Visual Position Indicator

H	3D visual position indicator black and yellow
Z	Flat visual position indicator black and yellow

Approval

W	Weather proof
A	ATEX certified box
G	EAC certification for russian market

Marking

0	Ordinary location
1	Certification marking: Ex II 2GD Exia IIC

IP Protection rating

0	Weather proof IP65
7	Nema 4 and 4X

Temperature

R	Ambient temperature range: -15 + 80 °C

Material

1	Glass reinforced plastic body and polycarbonate cover (on SP series)
2	Nickel plated aluminum body and polycarbonate cover (on SM series)

Dimensional Data

A

Pinion height
20 mm [0,78 in]
30 mm [1,18 in]
40 mm [1,57 in]
50 mm [1,97 in]

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