

# SF ( SERIES LIMIT SWITCH BOX )

The SOLDO SF series limit switch box provides a compact design and heavy duty housing for both visual and remote electrical indication of rotary valve/actuator position. Aluminium body and cover provide very high mechanical resistance. The big size 3D rotor provides high visibility confirmation of valve/actuator position. The wide variety of options make the SF series the ideal limit switch for use in heavy industries for both IP67 weather proof hand intrinsically safe applications. SOLDO has the flexibility and know how to offer an effective support whenever specific needs require the development of customised solutions.

## ( WEATHER PROOF )

IP67 and Nema 4 and 4X weather proof enclosure.

## ( CORROSION RESISTANT AND HEAVY DUTY HOUSING )

SF series are manufactured in a heavy duty housing made of die cast die cromated and polyester coated aluminium. Switches are completely enclosed into the aluminium housing. Shaft are sealed both on body and cover side. In case of position indicator removal or damage, switches are still protected into a metallic weather proof enclosure.

## ( HIGH SIZE 3D POSITION INDICATOR )

SF series mounts as standard a large two-colours 3D position indicator; it is easy to see real valve position both looking from top and from side of the valve. Indicator is mounted on a splined retainer in order to be finely and easily adjusted.

## ( JUNCTION BOX )

SF series can be provided with extra terminal strip to accommodate external solenoid valve and has two M20x1.5 (1/2" npt/f or PG13.5 as option) cable entries. This feature provides a significant cost saving by eliminating the need for a separate junction box and associated labour. Cable entries have a 13 mm thread thickness, this feature prevents housing damage due to very heavy cables or cable glands. Several terminal strip option are available: blue or green colour, cage clamp anti vibration or screw type.

## ( HIGH RESOLUTION SPLINED CAMS )

Easy-set cams are splined spring loaded and independently adjustable. This design offers tool free calibration and positive vibration resistant engagement.

## ( SWITCH OPTIONS )

SF series can be provided with different types of switches: SPDT or DPDT electromechanical silver plated or gold plated contacts; cylindrical, V3 or slot type inductive proximity NPN or PNP; SPDT or DPDT magnetic proximity. Is also available a complete range of imit switch boxes EEx ia ATEX certificate (consult SI bulletin). AS-I digital communication interface card, 3 position dribble control, 2 wire 4-20mA current position transmitter and pneumatic 3 way valves are also available. An anti-condensation 24V resistance is available on request.

## ( STANDARDISED MOUNTING )

Housing conforms to international dimension standards VDI/VDE3845 output shaft dimensions and ISO F05 bolt hole locations. This maximizes interchangeability plus reduces cost by eliminating need for switch/actuator coupler. A complete range of stainless steel mounting kit to fit SF both on pneumatic actuators (standardised or not) and on lever operated valves is available.

## ( SST TWIN SHAFT DESIGN )

SF series provides a twin shaft design, one shaft is sealed and fitted into body and another shaft is fitted and sealed into cover. This feature allows an easy and fast cover removal without need of indicator adjustment every time cover is removed. No metal to metal contact between body and rotating shaft warrants a very low torque.



## ( MATERIALS )

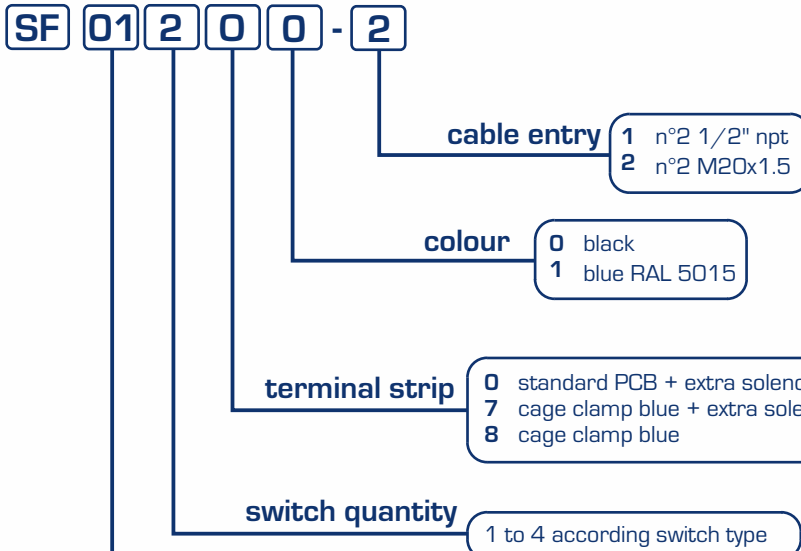
Body and cover : die cast, die cromated and polyester powder coated aluminium  
Indicator dome : UV resistant and VO polycarbonate  
Shaft : stainless steel  
Fasteners : stainless steel

## ( RATINGS )

Temperature range: standard -20°C + 80°C  
Temp. range may vary due to switch range  
Low temp. and high temp. execution available on request  
Electrical: according to switch option  
Consult "B02003-E-SWITCH\_DATA" bulletin for switch rating

# SF ( SERIES LIMIT SWITCH BOX )

( STANDARD OPTIONS AVAILABLE - Nomenclature )



**NOTES**

\* Namur EEx ia proximity switches available on SIF series limit switch box ATEX certificate (consult SI bulletin)

\*\* Resistive loads when not specified.

Terminal strip options depend on switch type.

Most of units can be provided with a pre-wired external connector.

SF013, SF023, SF033, SF172, SF182, SF733, SF753 cannot be provided with extra terminals for solenoid valve connection.

Consult specific data sheets for AS-I, dribble control and pneumatic options.

switch type *	rating **	max q.ty installed
01 electromech SPDT silver plated contacts	max 5A@250VAC - 3A@24VDC min 50mA@250VAC - 50mA@24VDC	3
02 electromech SPDT gold plated contacts sealed	max 3A@250VAC - 1A@24VDC min 5mA@250VAC - 1mA@24VDC	3
03 electromech SPDT gold plated contacts	max 3A@250VAC - 1A@24VDC min 5mA@250VAC - 1mA@24VDC	3
17 electromech DPDT gold plated contacts sealed	max 0.1A@250VAC - 0.1A@24VDC min 1mA@24VDC	2
18 electromech DPDT silver plated contacts sealed	max 2A@250VAC - 2A@24VDC min 50mA@24VDC	2
C3 proximity SPST bifurcated inert gas hermetically sealed	max 1,5A@120VAC - 0,5A@24VDC (resistive/inductive)	2
C4 proximity SPDT inert gas hermetically sealed	max 1A@120VAC - 1A@24VDC - max 25W	2
32 proximity NO P+F NBN4 12GM40 Z0	2 wire amplified, 5-60VDC, 2-100mA	2
73 proximity PNP NO P+F NBB2 V3 E2	3 wire amplified, 10-30VDC, 100mA	3
75 proximity NO / NC programmable IFM IS5026	2 wire amplified, 5-36VDC, 200mA	3
83 proximity NO P+F NBB3-V3-Z4	2 wire amplified, 5-60VDC, 100mA	3
91 4-20 mA transmitter	10-30VDC direct - reverse action	1
N1 SOLDO magnetic proximity SPDT silver plated	max 250 VAC, 28 VDC, resistive load 5A, inductive load 4A	3
N2 SOLDO magnetic proximity SPDT gold plated	max 250 VAC, 30 VDC, resistive load 1A, inductive load 0.5A	3
N3 SOLDO magnetic proximity SPDT gold / bifurcated	max 250 VAC, 30 VDC, resistive load 1A, inductive load 0.5A	3

( DIMENSION mm - inch )

