SAFEBox Limit Switch Boxes

❱❱ SAFEBox Limit Switch Boxes

SB-WP series compact limit switch boxes for process control, water, and other weather proof applications. An innovative yet simple design to monitor the valve position and to provide remote feedback to the control room.

SB-EX series explosion proof switch boxes conform to Ex d II C, T6 highest level of safety. It can also accommodate various standard switches and supports many industry standard communication protocols.

Stainless Steel mounting brackets are standard.

❱❱ Key Features

Sanyata SAFEBox Limit Switch boxes come with the following design features:

Split Shaft and Serrated Cams	Modular PCB Construction	Analogue Position Transmitter	Communication Protocols
Split shaft helps in easy installation, better accessibility and extended service life even in harsh and severe environments. The locked serrated cams protect settings against any vibration.	Makes the wiring simpler as the user only needs to plug in to the connectors. The rugged PCB design can handle current upto 15A with industry standard isolation requirements.	This option allows the monitoring of the valve position through a standard 4-20mA analog signal. Calibration of the position can be done in the field.	HART ModBus Profibus Foundation Field Bus Other standard & custom Protocols

❱❱ Technical Specifications

- Diecast Aluminium enclosure with black powder coating for superior corrosion resistance
- Stainless steel enclosure available as an option
- Shatter proof polycarbonate dome with OPEN and CLOSE indications as standard
- Cable entry sizes 1/2" NPT, 3/4" NPT, M20x1.5 and M25x1.5
- 2 cable entries as standard. Can support upto 4 cable entries as an option
- Standard NAMUR shaft interface provided with 5/16UNC @ 57 SQ and M6 @ 35.4 SQ
- Integral SOV termination as standard and can interface upto 2 SOV's
- 2 switches as standard and can accommodate maximum of 4 Switches
- Options for mechanical switches upto 15A
- Supports 2 and 3 wire inductive sensors of Flat, Cylindrical* and Slot Sensors of different sizes.
- Can accommodate different types of switches for custom applications**

* Dia. upto 18mm, Length upto 50mm.
** A combination of Flat type sensors and Mechanical switches can be provided

❱❱ Certification

IP 66/IP 68 Standard
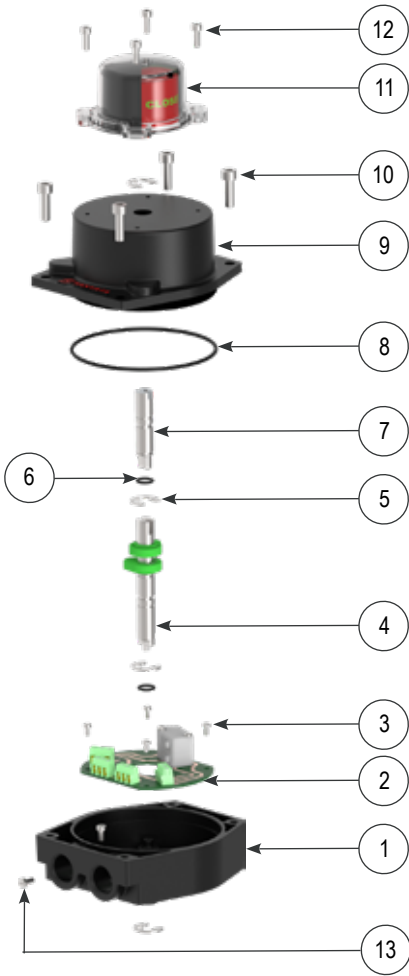CE marking
Ex d, IIC, T6
RoHs

❱❱ Temperature Range

Standard:
-20°C to +80°C

Low Temperature:
-40°C to +85°C
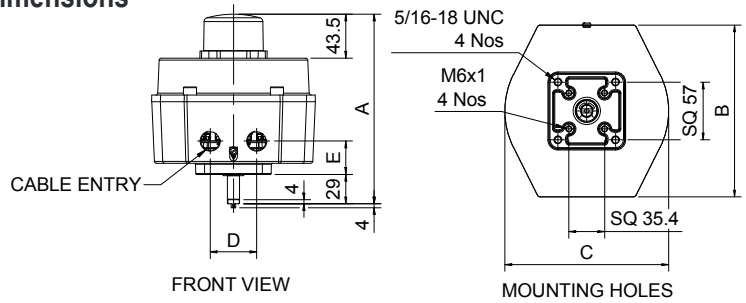
High Temperature:
-20°C to +125°C

›› Product Breakdown

Item	Description	Material	Qty
1	Housing	Aluminium	1
2	PCB Assembly	FR4	1
3	Screws For PCB	Stainless Steel	4
4	Lower Shaft and CAM Assembly	Stainless Steel + Plastic	1
5	External Circlip	Stainless Steel	4
6	O-Ring	NBR	2
7	Upper Shaft	Stainless steel	1
8	O-Ring	NBR	1
9	Cover	Aluminium	1
10	Screws For Cover	Stainless steel	4
11	Indicator Assembly	Polycarbonate	1
12	Screws For Indicator	Stainless steel	4
13	Screws For Earth Connection	Stainless steel	2

›› Overall Dimensions

FRONT VIEW

MOUNTING HOLES

Model	A	B	C	D	E	Cable Entry	
	millimeters (inches)					No of entries	Size
WP	160 (6.299)	124 (4.882)	111 (4.370)	38 (1.496)	21 (.827)	2	1/2" NPT, M20x1.5
EX	188 (7.402)	170 (6.693)	162 (6.378)	46 (1.811)	33 (1.299)	2 or 4	1/2" NPT, M20x1.5, 3/4" NPT, M25x1.5

›› Switch Options

Switch Type	Standard Specifications		Switch Model	Switch Code
Mechanical Switch	SPDT/SPST │ Upto 250V AC │ -25° to 125°C 50000 Cycle operation 5A, 15A	Honeywell	V15T16-MZ200	MHW1
			V15S05-CZ100	MHW2
			V7-1C17E9	MHW3
		Crouzet	83263011	MCZ1
Flat Inductive Proximity	All the 2,3 and 4 wire Flat inductive sensors with same footprint as that of P&F NJ2-V3-N	Pepperl+Fuchs	NJ2-V3-N	FPF1
			NBB3-V3-Z4	FPF2
			NCB2-V3-N0	FPF7
		IFM	IS5026	FIFM1
			NS5002	FIFM2
		Turck	BI2-Q10S-AP6X	FTUR1
Cylindrical Inductive Proximity	All the 2,3 and 4 wire switches can be accommodated, Both 12mm and 18mm sensors with length upto 50mm can be accommodated	Pepperl+Fuchs	NJ2-12-GM-N	CPF3
			NCB2-12GM35-NO	CPF4
			NCN4-12GM35-NO	CPF5
			NJ4-12GK-N	CPF6
			NBN4-12GM40-ZO	CPF9
			NJ4-12GM50-WS	CPF10
			NJ5-18GM-N	CPF11
			NBB5-18GM50-ZO	CPF12
		IFM	NF5003	CIFM4
			IF5718	CIFM5
		Turck	NI5-K11-AP6X	CTUR1
Slot Inductive Proximity	All the 2,3 and 4 wire flat inductive sensor with same footprint as that of P&F SJ3.5-N	Pepperl+Fuchs	SJ3.5-N	SPF8
		Turck	SI3.5-K10-AP6X	STUR1
Special	Customer Specific		Customer Specific	X

4 wire switches are limited to max of 3 numbers

WP series can accommodate (C) cylindrical proximity of Ø12mm and length <=35mm

❱❱ Product Selection Chart

| SB- | WP | A | A | CPF4 | 2 | 1 | S |

Series Type
WP - Weather Proof
EX - Explosion Proof

Material of Construction
A: Aluminium
S: Stainless Steel

Feedback Option
A. Basic Switch Feedback
B. 4-20mA PTR
C. 4-20mA PTR + Switches*
D. 4-20mA PTR with HART
E. Modbus
F. Profibus
G. Foundation Field Bus
X: Other communication protocols

Switch Code
Select from switch options table

No. of Switches**
1
2
3
4

Cable Entries***
1: 2 Cable Entries 1/2" NPT
2: 2 Cable Entries M20 x 1.5
3: 2 Cable Entries 3/4" NPT
4: 2 Cable Entries M25 x 1.5

Temperature
S: Standard
L: Low
H: High

*Mechanical and flat inductive proximity type switches can be offered along with 4 to 20mA POT
**for WP version maximum of 2 switches can be provided
***for WP version cable entries 1&2 can be provided

❱❱ Sample Product Selection

SB-WP-A-A-CPF4-2-1-S: SB-WP series LSB with Aluminium as the MOC, 2 nos of Cylindrical inductive proximity type NCB2-12GM35-NO switches, 1/2" NPT cable entries and standard temperature option.

Contact

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