

Technical data	Symbol	Ratings:	I	II	III	IV	V	Unit
Rated operational voltage	Ue		1000	850	800	650	400	V dc
Rated operational current	Ie		16	20	25	30	45	A dc
Required fine wire cross-section (minimal)*:			2,5	4,0	4,0	6,0	10,0	mm ²
*IEC60947-1, table 9								
Number of DC poles							2	
Utilization category DC							DC-21B	
Pollution degree							2	
IP rating terminals							IP20	
Tightening torque terminal screws M4 (min. - max.)						1,5	– 1,7	Nm
Method of mounting								
IP rating of the shaft in case of single hole and four hole panel mounting							IP65	
Tightening torque panel mounting nut (min. - max.)						2,0	– 2,5	Nm
Panel thickness between						1	– 4	mm
Positions							12 (OFF) and 3 o'clock (ON)	
Actuator							Standard A knob with long screw to fix in shaft	
Method of operation							Independent manual operation	
Actuator operation force (max.)							1,4	Nm
Tightening torque M3 screw in the actuator (min. - max.)						0,2	– 0,4	Nm
Rated impulse withstand voltage		Uimp					8	kV
Insulation voltage		Ui					850	V
Rated thermal current uninterrupted duty		Iu					45	A
Rated short-time withstand current (1s)		Icw					700	A
Rated short-circuit making capacity		Icm					1,4	kA
Rated conditional short-circuit current		Isc					5	kA
Minimum required dimensions of enclosures L x W x D* {space envelope}					124	x	47	x 64 mm
* see the drawing for the height of the switch. The number of layers N is:							2	
Weight							ca. 137	g
Allowed ambient temperature (min. - max.)		T _{ambient}				-40	– 70	°C
Allowed storage temperature (min. - max.)		T _{storage}				-40	– 85	°C
Relative humidity (max.), without condensation at 20°C		RH					90	%

Terminals Scheme									
Layer No.	Front Side Left	Right	Symbol	Rear Side Left	Right	1	2	3	4
7									
6									
5									
4									
3									
2	-1			-1		I			0
1		+1			+1	I			0

(I = Contact is closed, O = Contact is open)

Mounting instructions

In the application all ratings according to the datasheet have to be respected. After mounting, the wiring must be checked and the switch must operate smoothly. When building the switch in an enclosure, the space envelope must be respected according to the applicable standards.

Maintenance

The X type switches are designed for a very long life but it is advised to do some simple yearly maintenance.

- Check the installation for signs of overload or overheating. The terminals may not exceed the limit of 85°C under full load.
- By operating the switch a few times (5x) the contacts will clean themselves and the switch will have a longer life.

Connection

The terminals, can take copper wires up to 6 mm². The recommended Spade Tongue Terminals may have a maximum width of 9 mm (see table for recommendations)