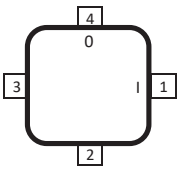
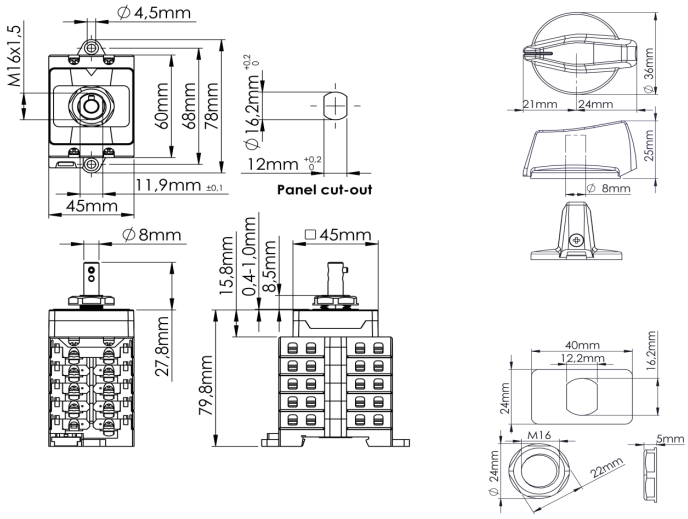
Data Sheet XBE+0410/2





General tolerances on linear dimensions:	For the height of a switch is the tolerance always ± 1%				
Dimensions (mm)	0,5 - 3	> 3 - 6	> 6 - 30	> 30 - 120	> 120 - 400
Tolerances unless Otherwise mentioned (mm)	± 0,1	± 0,1	± 0,2	± 0,3	± 0,5
The tolerances for the Santon datasheet are according to ISO 1101, ISO 8015, ISO 2768 1 class m, unless stated otherwise.					

Technical data	Symbol	Ratings:	I	II	III	Unit
Rated operational voltage	Ue	DC-PV1	1000	800	500	V dc
Rated operational current	Ie	DC-PV1	16	25	50	A dc
Required fine wire cross-section (minimal)*:			2,5	4	10	mm²
Rated operational voltage based on	Ue	DC-PV2	1000	≦800	≦500	V dc
Rated operational current 2 poles	Ie	DC-PV2	8	12,5	25	A dc
Ie(make) and Ie(break) 1/0 2/0	4 x Ie	DC-PV2	32	50	100	A dc
Rated operational current 1 pole	Ie	DC-PV2	2	3,1	6,3	A dc
Ie(make) and Ie(break) 1/0	4 x Ie	DC-PV2	8	12,5	25,2	A dc
Required fine wire cross-section (minimal)*:			2,5	4	4	mm²
*IEC60947-1, table 9						
Number of DC poles					4	
Pollution degree					2	
Utilization category DC					DC-PV1 and DC-PV2	
Polarity		No Polarity, "+" and "-" polarities could be changed				
Indoor or outdoor Use		Suitable for both indoor and outdoor use				
for enclosed indoor use AS 60947.3	IP Code		IP20			
for enclosed outdoor use AS 60947.3	IP Code		IP66NW, after installation			
for enclosed outdoor use AS 60947.3	Specific dedicated individual enclosure		min. size 340mmx240mmx100mm			
for enclosed outdoor use AS 60947.3	Ithe at 40°C		50A			
for enclosed outdoor useAS 60947.3	Ithe solar at 40°C		50A			
for enclosed outdoor use AS 60947.3	Ithe solar at 60°C		50A			
for enclosed outdoor use AS 60947.3	UV resistance		Yes			
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 mounting					IP65	
Tightening torque panel mounting nut (min. - max.)				2,0 – 2,5		Nm
Panel thickness between				1 – 3		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.)				0,45 – 0,55		Nm
Rated impulse withstand voltage	Uimp				8	kV
Insulation voltage	Ui				1000	V
Rated thermal current uninterrupted duty	Iu	DC-PV1 = 50 A DC-PV2 =			25	A
Rated short-time withstand current (1s)	Icw				700	A
Rated short-circuit making capacity by IEC 60947 1&3	Icm				1,4	kA
Rated conditional short-circuit current	Isc				5	kA
Rated short-circuit making capacity by AS 60947: 2018	Icm				200	A
Minimum required dimensions of enclosures L x W x D* {space envelope}			124 x 47 x		81	mm
* see the drawing for the height of the switch. The number of layers N is:					4	
Weight					ca. 198	g
Allowed ambient temperature (min. - max.)	Tambient			-25 – 70		°C
Allowed storage temperature (min. - max.)	Tstorage			-40 – 85		°C
Relative humidity (max.), without condensation at 20˚C	RH				90	%

Terminals Scheme									
Layer No.	Front Side Left	Front Side Right	Symbol	Rear Side Left	Rear Side Right	Positions 1	2	3	4
9									
8									
7									
6									
5	+2		O	+2		I			0
4		-2	O		-2	I			0
3	-1		O	-1		I			0
2		+1	O		+1	I			0
1			Empty						

(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.In case mounting the switch with a rear bracket using the optional four screw holes in the bottom plate, please take into account the required air&creeping distances with respect to the live parts according to the applicable standard (IEC/UL).

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)

Warning

Verify that all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightend to the manufacturer's required torque before energization.

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm²)	Color
JST		AWG 16 – AWG 14	1,0 – 2,5 mm²	Blue
TE connectivity	C-165012	AWG 16 – AWG 14	1,0 – 2,5 mm²	Blue
Vogt	3635c	AWG 16 – AWG 14	1,5 – 2,5 mm²	Blue
TE connectivity	C-165015	AWG 12 - AWG 10	3,0 - 6,0 mm²	Yellow
Vogt	3654c / 3655c	AWG 12 - AWG 10	3,0 - 6,0 mm²	Yellow
Santon (JST)	52A1256.35	AWG 8 - AWG 10	10,5mm²-16mm² *1	*2

*1 16mm² only with fine stranded wire (or two times 6mm²)
*2 To insulate the cable lugs, you can use the insulating spouts of the ES series from CEMBRE with the type designation ES3-XX