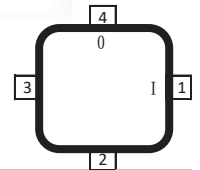
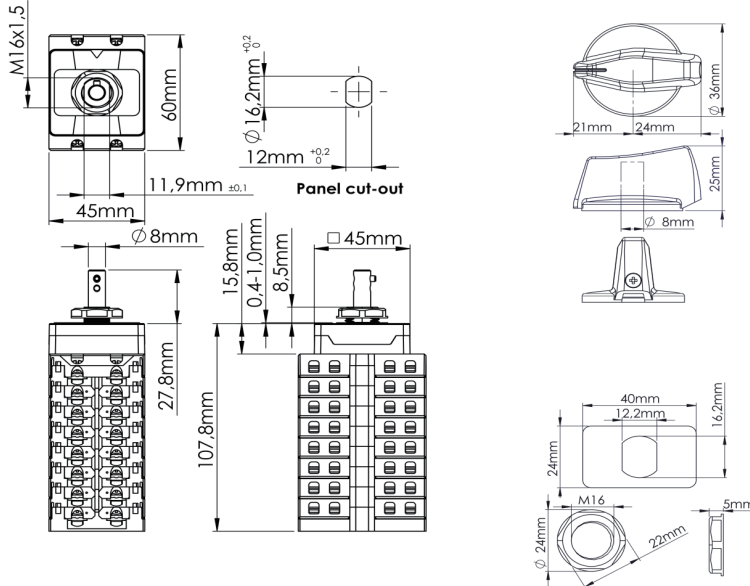




Data Sheet XBCH+3810/2

Attention! This switch may only be mounted with a support at the end of the switch.



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

Technical data	Symbol	Ratings:	*	I	II	III	Unit	
Rated operational voltage	Ue		1250	1500	1000	800	V dc	
Rated operational current	Ie		35	20	50	60	A dc	
Required fine wire cross-section (minimal)*:			10	4	10	16	mm ²	
* Santon calculation not certified								
*IEC60947-1, table 9								
Number of DC poles						8		
Pollution degree						2		
Utilization category DC						DC-PV1		
IP rating terminals						IP20		
Tightening torque terminal screws M4 (min. - max.)						1,5 - 1,7	Nm	
Method of mounting			panel 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 - 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.)						0,50 - 0,70	Nm	
Rated impulse withstand voltage		Uimp				8	kV	
Insulation voltage		Ui				1500	V	
Rated thermal current uninterrupted duty		Iu				60	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	118	mm
* see the drawing for the height of the switch. The number of layers N is:						8		
Weight						ca. 296	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		Symbol	Rear Side		Positions			
	Left	Right		Left	Right	1	2	3	4
9									
8	+4			+4		I			0
7		-4			-4	I			0
6	-3			-3		I			0
5		+3			+3	I			0
4	+2			+2		I			0
3		-2			-2	I			0
2	-1			-1		I			0
1		+1			+1	I			0

(I = Contact is closed, 0 = 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/creeper 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 tightened to the manufacturer's required torque before energization.

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