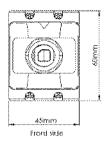
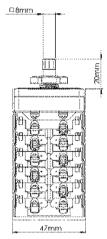
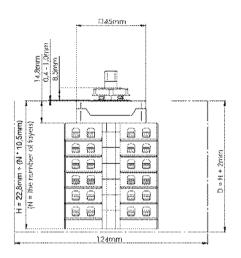


Rear side





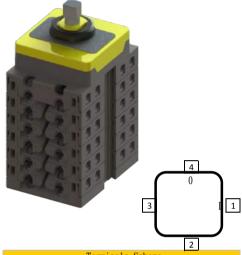




Technical data	Symbol	Ratings: I	П	III	IV		V	Unit	
Rated operational voltage	Ue	1000	850	800	650		400	V dc	
Rated operational current	le	16	20	25	30		45	A dc	
Required fine wire cross-section	2,5	4,0	4,0	6,0	1	10,0	mm²		
*IEC60947-1, table 9									
Number of DC poles							4		
Utilization category DC						DC-	21B		
Pollution degree							2		
	IP rating terminals				IP20				
Tightening torque terminal scre	ws 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						ı	P65		
Tightening torque panel mounti	ng nut (min max.)				2,0	-	2,5	Nm	
Panel thickness between					1	-	4	mm	
Positions		12 (OFF	and 3 o'c	lock (ON)					
Actuator		Standa	rd knob wit	h top scre	ew, black	[E],			
Method of operation		Indepe	ndent man	ual opera	tion				
Actuator operation force (max.)							1,4	Nm	
Tightening torque M3 screw in t	r.)			1,3	-	1,5	Nm		
Rated impulse withstand voltage	2	Uimp					8	kV	
Insulation voltage	Ui				1	000	V		
Rated thermal current uninterru	pted duty	lu					0	Α	
Rated short-time withstand curr	ent (1s)	lcw					700	Α	
Rated short-circuit making capa	city	Icm					1,4	kA	
Rated conditional short-circuit o	urrent	Isc					5	kA	
Minimum required dimensions	of enclosures L x W x D*	{space envelope}		124	x 47	x	85	mm	
* see the drawing for the height of the switch. The number of layers N is:						4			
Weight					ca.	235	g		
Allowed ambient temperature (	min max.)	T <sub>ambient</sub>			-40	-	70	°C	
Allowed storage temperature (n	nin max.)	T <sub>storage</sub>			-40	_	85	°C	
Relative humidity (max.), witho								%	

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm²)	Color
JST	FVD2-YS4A	AWG 16 – AWG 14	1,0 – 2,5 mm²	Blue
TE connectivity	C-165012	AWG 16 – AWG 14	1,0 - 2,5 mm <sup>2</sup>	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 mm <sup>2</sup>	Yellow
Vogt	3652c / 3653c	AWG 12 - AWG 10	3,0 - 6,0 mm²	Yellow
Santon (JST)	52A1256.35	AWG 8 - AWG 10	10,5mm²-16mm² *1	*2





Terminals Scheme									
Layer	Front Side		Symbol	Rear Side		Positions			
No.	Left	Right	Symbol	Left	Right	1	2	3	4
7									
6									
5									
4	+2	-		- +2		I			0
3		-2		-	-2	I			0
2	-1		<u></u>	1		I			0
1		+1 -	OH	-	+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.

## 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 85oC under full load.
- By operating the switch a few times (5x) the contacts will clean themselves and the switch will have a longer life.

## ${\tt Connection}$

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)

- \*1  $\,$  16mm² only with fine stranded wire (or two times 6mm²)
- \*2 Optional: A yellow finger safe sleeve for the Spade Tongue Terminal (Santon 52A1256.35) can be ordered under item number 52A1564.00