



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	IV	Unit	
Rated operational voltage	Ue		1100	1000	800	500	V dc	
Rated operational current	Ie		10	16	25	50	A dc	
Required fine wire cross-section (minimal)*:			2,5	2,5	4	10	mm ²	
*IEC60947-1, table 9								
Number of DC poles						8		
Utilization category DC						DC-PV1		
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 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								
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					1100	V	
Rated thermal current uninterrupted duty								
	Iu					50	A	
Rated short-time withstand current (1s)								
	Icw					700	A	
Rated short-circuit making capacity								
	Icm					1	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	92	mm
* see the drawing for the height of the switch. The number of layers N is:								
						6		
Weight								
						ca. 274	g	
Allowed ambient temperature (min. - max.)								
	Tambient				-40	- 70	°C	
Allowed storage temperature (min. - max.)								
	Tstorage				-40	- 85	°C	
Relative humidity (max.), without condensation at 20 °C								
	RH					90	%	

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm ²)	Color
JST	FVD2-YS4A	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	3652c / 3653c	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

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

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)

*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