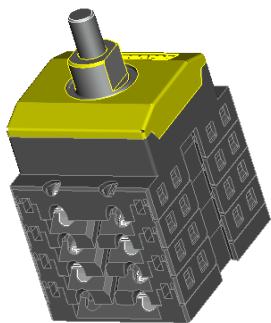


THE NEW SANTON X-TYPE SWITCH

TECHNICAL SPECIFICATIONS AND INSTRUCTIONS FOR USE

SANTON X-TYPE SWITCH: X60.16PL4E-(A)

Switch disconnecter for solar application according to IEC 60947-1&3

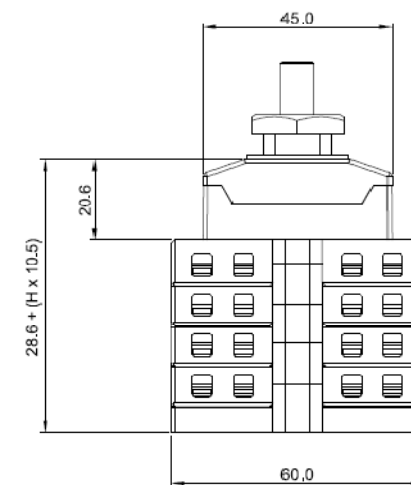
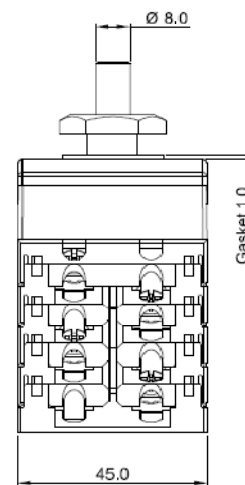
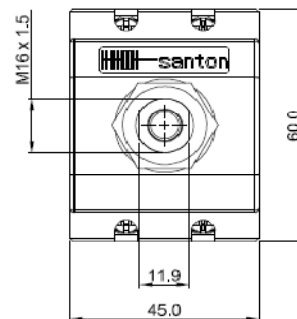


Contact scheme				Positions			
Marking	Symbol	Marking	1	2	3	4	
12	— / —						
11	— / —						
10	— / —						
9	— / —						
8	— / —						
7	— / —						
6	— / —						
5	— / —						
4	+2	— / —	+2	X			
3	-2	— / —	-2	X			
2	-1	— / —	-1	X			
1	+1	— / —	+1	X			

Contacts are made in "X" marked position.

Symbols for interconnection: []

Technical data	Symbol	Unit	
nominal voltage (DC poles)	Ue	600	V dc
nominal current (DC poles)	Ie	16	A dc
nominal voltage (second rating DC poles, if requested)	Ue		V dc
nominal current (second rating DC poles, if requested)	Ie		A dc
method of mounting	single hole mounting IP65 [P] long gland		
number of DC poles		4	
utilization category DC		DC-21B	
actuator	without a knob, suitable for standard black knob [A]		
positions	OFF at 12 hr, ON at 3 hr [E]		
rated impulse withstand voltage	Uimp	8	kV
insulation voltage	Ui	600	V
rated thermal current uninterrupted duty	Iu	16	A
rated short-time withstand current (1s)	Icw	480	A
rated short-circuit making capacity	Icm	1.4	kA
rated conditional short-circuit current		4	kA
max. cut-off current			kA
max power dissipation		1.6	W
method of operation	independent manual operation		
minimum required dimensions of enclosures l x w x h*		124 x 47 x 74	mm
* see the drawing for the height of the switch. The number of layers H is:		4	
terminal screws M4 need a tightening torque, min. - max.	1.5	1.7	Nm
tightening torque screw in the standard black knob, min. - max.	2.0	2.5	Nm
minimum required fine wire cross-section: IEC60947-1, table 9		2.5	mm ²
ambient temperature allowed between	- 5 and + 40		°C
storage temperature allowed between	- 40 and + 80		°C
maximum relative humidity, without condensation at 20 °C	90		%
pollution degree	2		
IP rating terminals		IP20	
IP rating gland of the shaft in case of single hole panel mounting		IP65	
nominal voltage (AC poles)	Ue	0	V AC
nominal current (AC poles)	Ie	0	A AC
number of DC poles		0	
auxiliary contact, nominal current 16A at 250 V, AC15	No auxiliary contact		
weight		221	g
accessories:			



Mounting instructions

In the application all ratings have to be respected. When building the switch in an enclosure, the space envelope must be respected. The terminals can take flexible wires up to 6 mm² and fork shoes for wires up to 10 mm² (type 3547C from Vogt). After mounting, the wiring must be checked and the switch must operate smoothly.

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.

Dimensions, specifications and data shown could be subject to change without notice.