

Knob Rotary Switch SB20



Switch for direct soldering to PC board.

- Switch height incl. detent mechanism is only 9,2 mm with diameter Ø 20 mm.
- Horizontal mounting possible with additional PC board.
- Hollow-shaft versions: Type SB 20S, Type SB 20AD.
- Optionally with or without stops. Snap-in stops available.
- Low price.
- Available on request with a higher operating torque.

1.0 Construction

1.1 Number of wafers max.	1 wafer
1.2 Switching combinations per wafer Design E, detent angle 30°	1x12 to 1x2; 2x6 to 2x2; 3x4 to 3x2 4x3 to 4x2; 6x2
1.3 Contacts	Soldering pins
1.4 Mounting	Soldering

2.0 Electrical Data

	Ag-version	Au-version
2.1 Switching power max.	5 VA/W	1 VA/W
2.2 Switching voltage max.	150 V _≈	150 V _≈
2.3 Switching current max.	130 mA	20 mA
2.4 Rest current max. at ∂u 20°C	≤ 3 A	≤ 1 A
2.5 Test voltage at 50 Hz	1000 V	1000 V
2.6 Life expectancy*	without power	≥ 20 000 cycles
	with power max.	≥ 15 000 cycles
2.7 Contact resistance	Initial value	≤ 25 mΩ
	after life expectancy with electrical load	≤ 50 mΩ
2.8 Insulation resistance	≥ 10 ⁹ Ω	≥ 10 ⁹ Ω
2.9 Capacity between 2 contacts	≤ 2 pF	≤ 2 pF

* Life expectancy at switching combination 2 x 6.

3.0 Mechanical Data

3.1 Switching mode	Shorting or non-shorting
3.2 Stops*	Fixed or without stop
3.3 Operating torque acc. to design	2,5 Ncm
3.4 Hollow shaft	Not for type FA
3.5 Dust protection	Sealed wafer

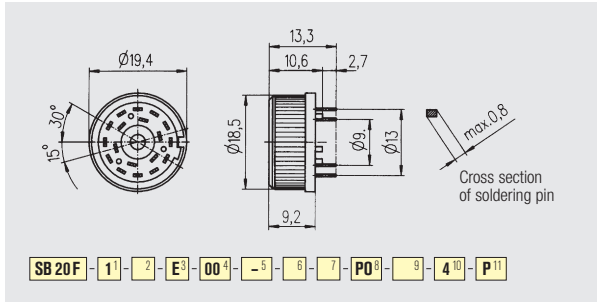
* Subsequent limitation of switching positions by stop pins is possible.

4.0 Other Data

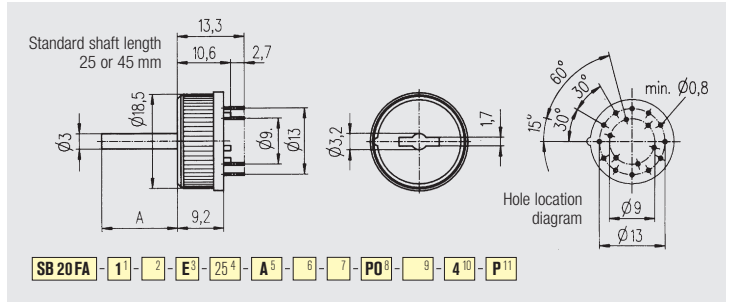
4.1 Contact material	Ag; special design Au over Ni barrier layer
4.2 Insulating material	Wafer
	Rotor
4.3 Soldering time and temperature max.	5 s at 260°C

The bold-typed data in the yellow order blocks remain unchanged.
 Normal-typed data match the drawings and can be modified according to your wishes.
 Blanks need to be completed according to the ordering details on the inside front cover.

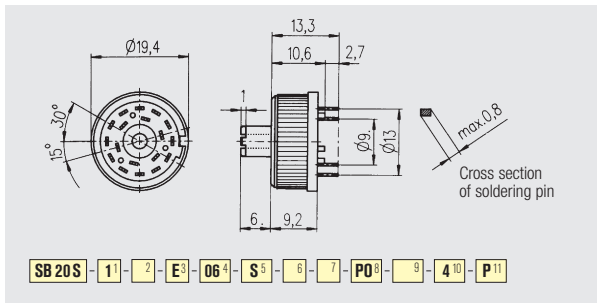
Dimensional Drawings · Dimensions in mm



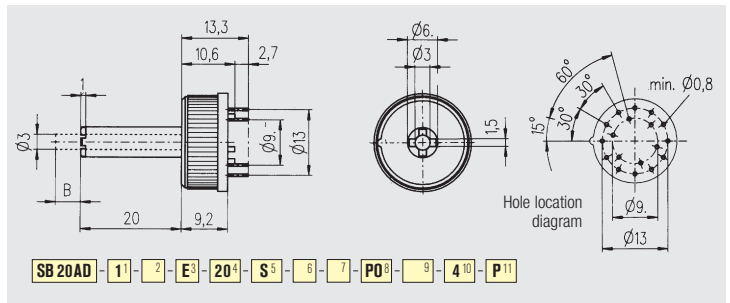
SB 20 F



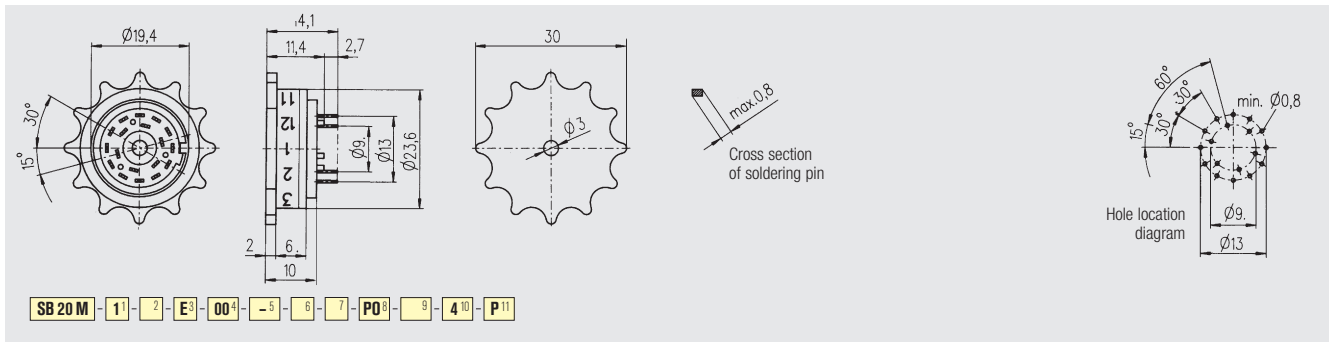
SB 20 FA



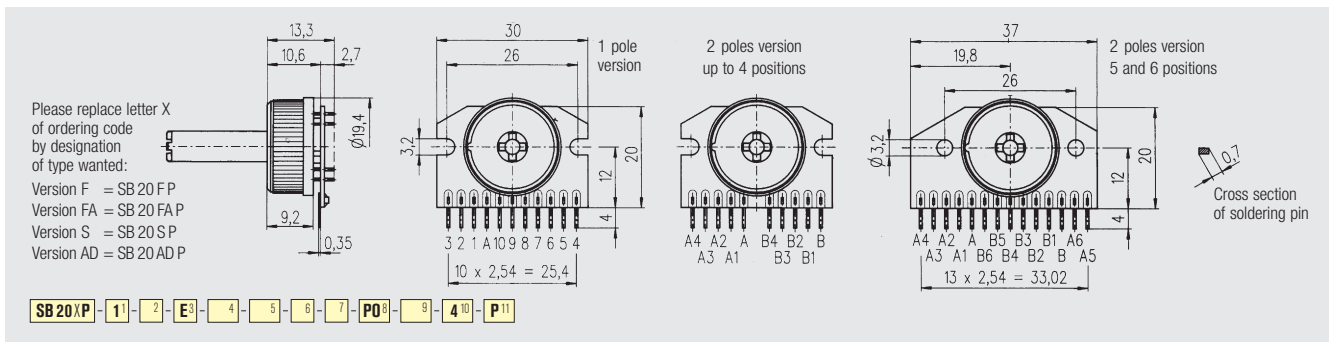
SB 20 S



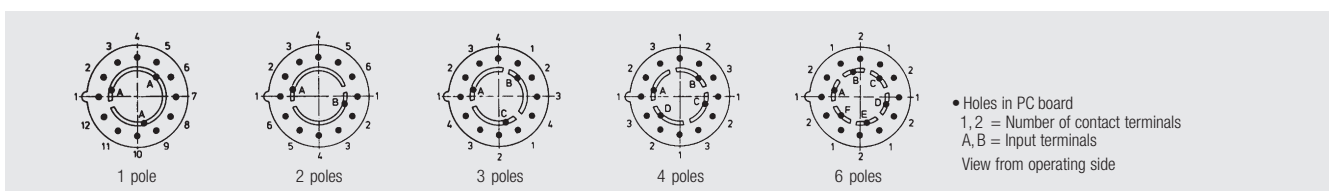
SB 20 AD



SB 20 M



SB 20 with PC board



SB 20 · Contact arrangements as viewed from detent mechanism