Miniature Switch SBK12, SBL12, SBIV14

This miniature switch has vast possibilities and variations.

- Two different grids:
  2,54 mm according to the international standard ($^1/_{10}$ inch) or 2,0 mm for minimum space requirements of PC board (SBL12 only).
- Special version according to MIL 3786 and VG 95318.
- Fixing with additional non-turn protection frame (SBL12 only).

Switch SBK 12

- Plastic detent mechanism and wafers with epoxide-glass laminate.

  Special designs:

– watertight against front panel.

– Soldering pin bar as distance keeper to prevent short-circuits, when conducting run paths below the switch.

– wafers with special applications.

Switch SBL12

- Plastic detent mechanism with moulding wafers made of thermoplastics.
- Connection pins and contacts made of one piece for safe soldering even under adverse conditions.

  Special designs available on request.

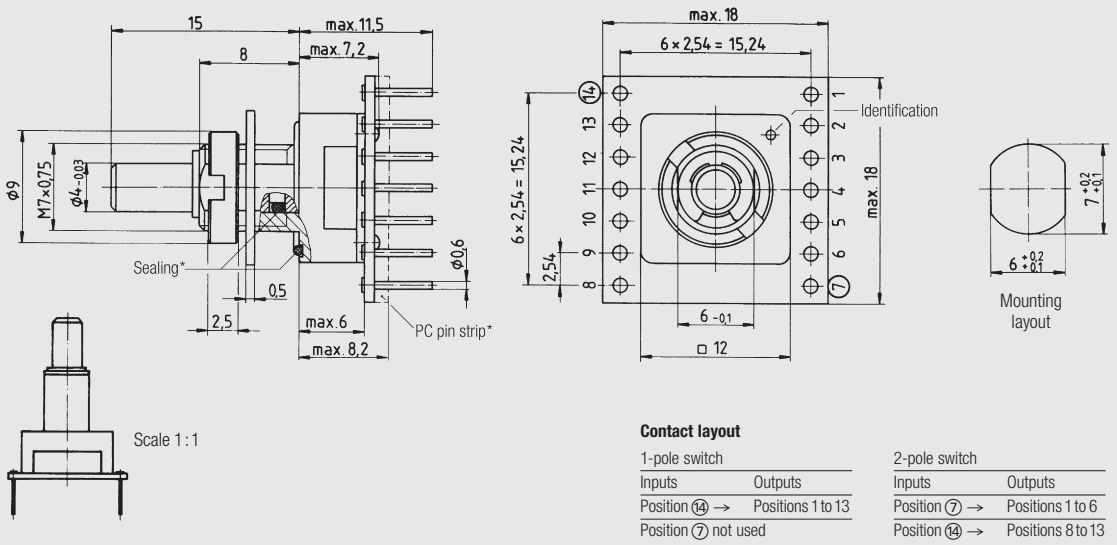
Switch SBIV 14

- Impulse contact, e. g. for battery test or as call contact.
- Locking possibility for free selectable switch positions, i.e. the switch can only be brought into a locked switch position if pressure is applied to the axes.
- Watertight as special design.

1.0 Construction			
1.1	Number of wafers max.		1 wafer
1.2	Switching combinations per wafer		—
	SBK12 Design B, detent angle 60°		1x6 to 1x2; 2x6 to 2x2; module grid 2,54 mm
	SBK12 Design E, detent angle 30°		1x12 to 1x2; 2x6 to 2x2; module grid 2,54 mm
	SBL12 Design D, detent angle 36°		1x10 to 1x2; 2x5 to 2x2; module grid 2,0 or 2,54 mm
	SBIV14 Design D, detent angle 36°		See diagram on page 13 »configuration«
1.3	Contacts		Soldering pins
1.4	Mounting		Central mounting
2.0 Electrical Data			
2.1	Switching power max.		1,5 VA/W
2.2	Switching voltage max.		30 V≃
2.3	Switching current max.		50 mA
2.4	Rest current max. at ∂u 20°C		0,5 A
2.5	Test voltage at 50 Hz		100 V
2.6	Life expectancy	without power	≥ 20 000 cycles
		with power max.	≥ 10 000 cycles
2.7	Contact resistance	Initial value	≤ 60 mΩ
	Contact resistance	without electrical load	≤ 100 mΩ
	after life expectancy	with electrical load	≤ 100 mΩ
2.8	Insulation resistance		≥ 10^{10} Ω
2.9	Capacity between 2 contacts		≤ 2 pF
	Capacity between contact and ground		≤ 2 pF
3.0 Mechanical Data			
3.1	Mode of switching		Shorting or non-shorting
3.2	Stops		Fixed or without stop
3.3	Operating torque		3 to 8 Ncm
3.4	Stop strength		≥ 50 Ncm
3.5	Fixing torque		≤ 70 Ncm
3.6	Vibratory strength		10 g, 10 to 500 Hz
3.7	Shock strength		50 g, 11 ms
3.8	Dust protection		Sealed wafers
3.9	Waterproofing		As special design
4.0 Other Data			
4.1	Contact material	Wafer	Au with Ni insulating layer
		Bridge	Ag; Au as special design
4.2	Insulating material	Wafer SBK12, SBIV14	Epoxide glass laminate; Code EP
		Wafer SBL12	Polybutylenenterephthalate PBTP; Code PB
		Rotor	Thermoplastic
4.3	Detent mechanism		Zinc die casted body with plastic mechanism
4.4	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



Contact layout

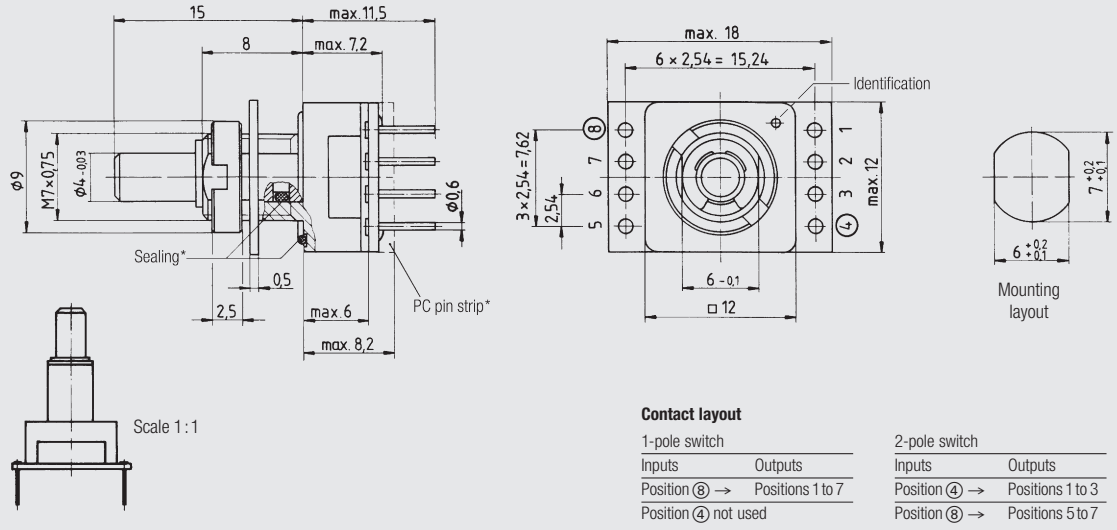
1-pole switch	
Inputs	Outputs
Position ⑭ →	Positions 1 to 13
Position ⑦ not used	

2-pole switch	
Inputs	Outputs
Position ⑦ →	Positions 1 to 6
Position ⑭ →	Positions 8 to 13

*Special type

SBK 12	-	1 [1]	-	[2]	-	E [3]	-	15 [4]	-	A [5]	-	[6]	-	[7]	-	EP [8]	-	[9]	-	1 [10]	-	P [11]	-	[12]	-	[13]	-	2,54 [14]

SBK 12 · Detent angle 30°, pin module grid 2,54 mm



Contact layout

1-pole switch	
Inputs	Outputs
Position ⑧ →	Positions 1 to 7
Position ④ not used	

2-pole switch	
Inputs	Outputs
Position ④ →	Positions 1 to 3
Position ⑧ →	Positions 5 to 7

*Special type

SBK 12	-	1 [1]	-	[2]	-	B [3]	-	15 [4]	-	A [5]	-	[6]	-	[7]	-	EP [8]	-	[9]	-	1 [10]	-	P [11]	-	[12]	-	[13]	-	2,54 [14]

SBK 12 · Detent angle 60°, pin module grid 2,54 mm

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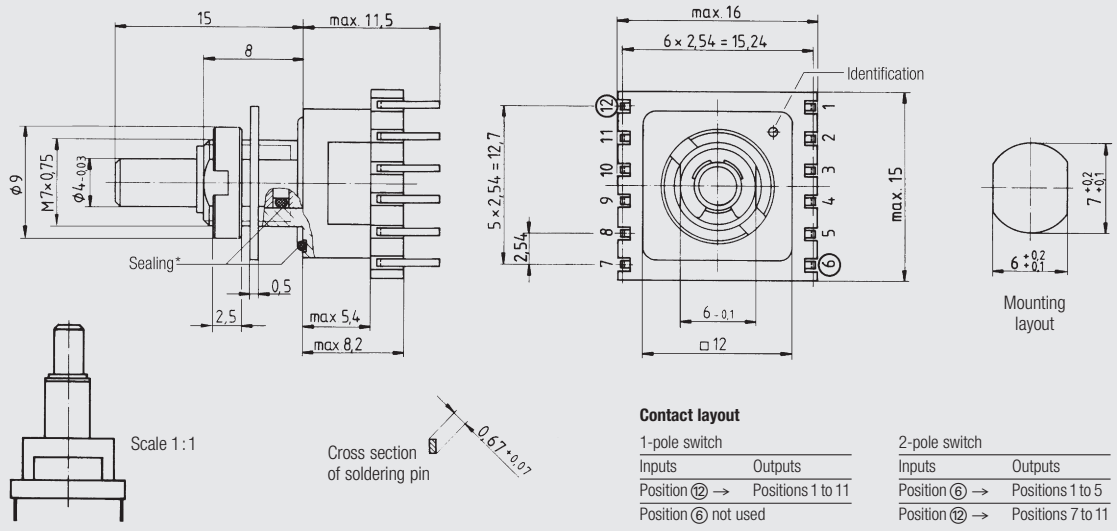
Dimensional Drawings · Dimensions in mm



Contact layout

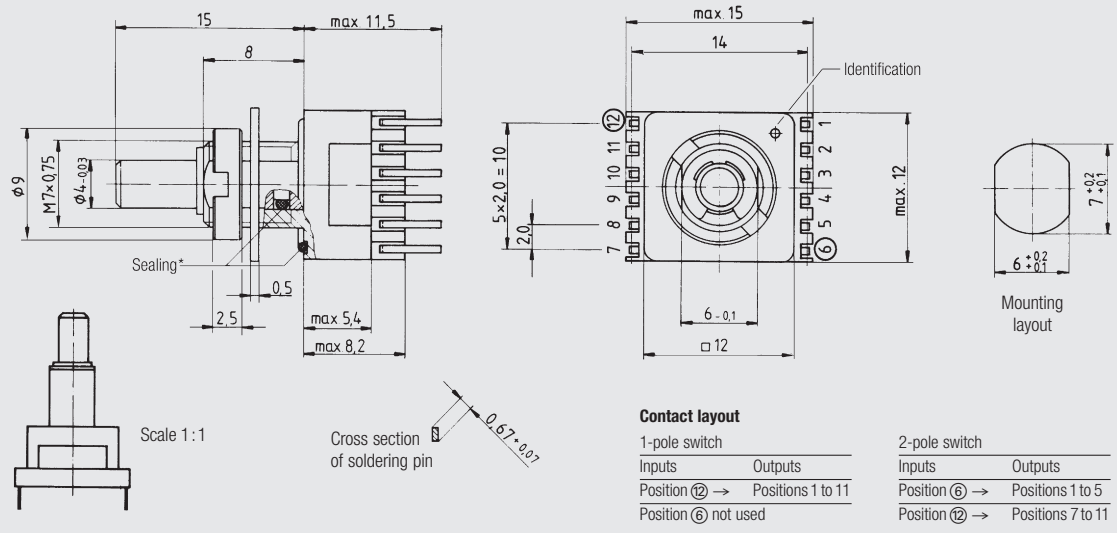
1-pole switch	
Inputs	Outputs
Position ⑫ →	Positions 1 to 11
Position ⑥ not used	

2-pole switch	
Inputs	Outputs
Position ⑥ →	Positions 1 to 5
Position ⑫ →	Positions 7 to 11

*Special type

SBL12	1 [1]	2	D [3]	15 [4]	A [5]	6	7	PB [8]	9	1 [10]	P [11]	12	13	2,54 [14]

SBL12 · Detent angle 36°, pin module grid 2,54 mm



Contact layout

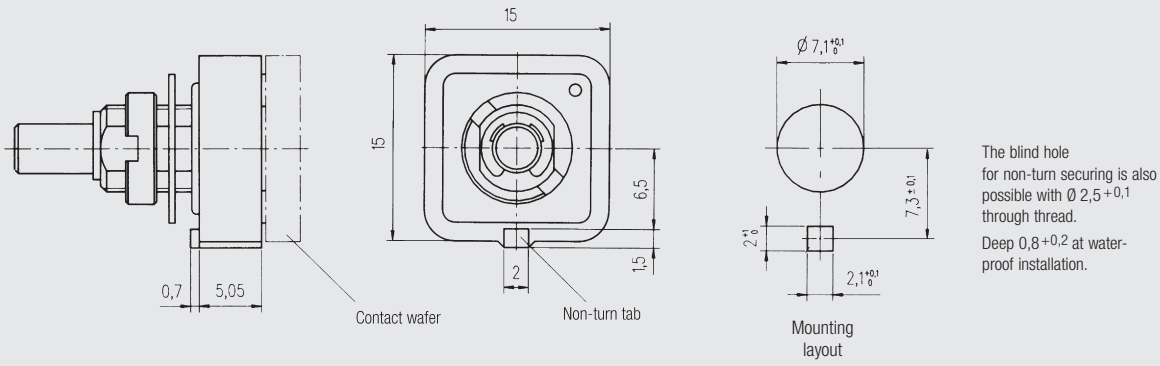
1-pole switch	
Inputs	Outputs
Position ⑫ →	Positions 1 to 11
Position ⑥ not used	

2-pole switch	
Inputs	Outputs
Position ⑥ →	Positions 1 to 5
Position ⑫ →	Positions 7 to 11

*Special type

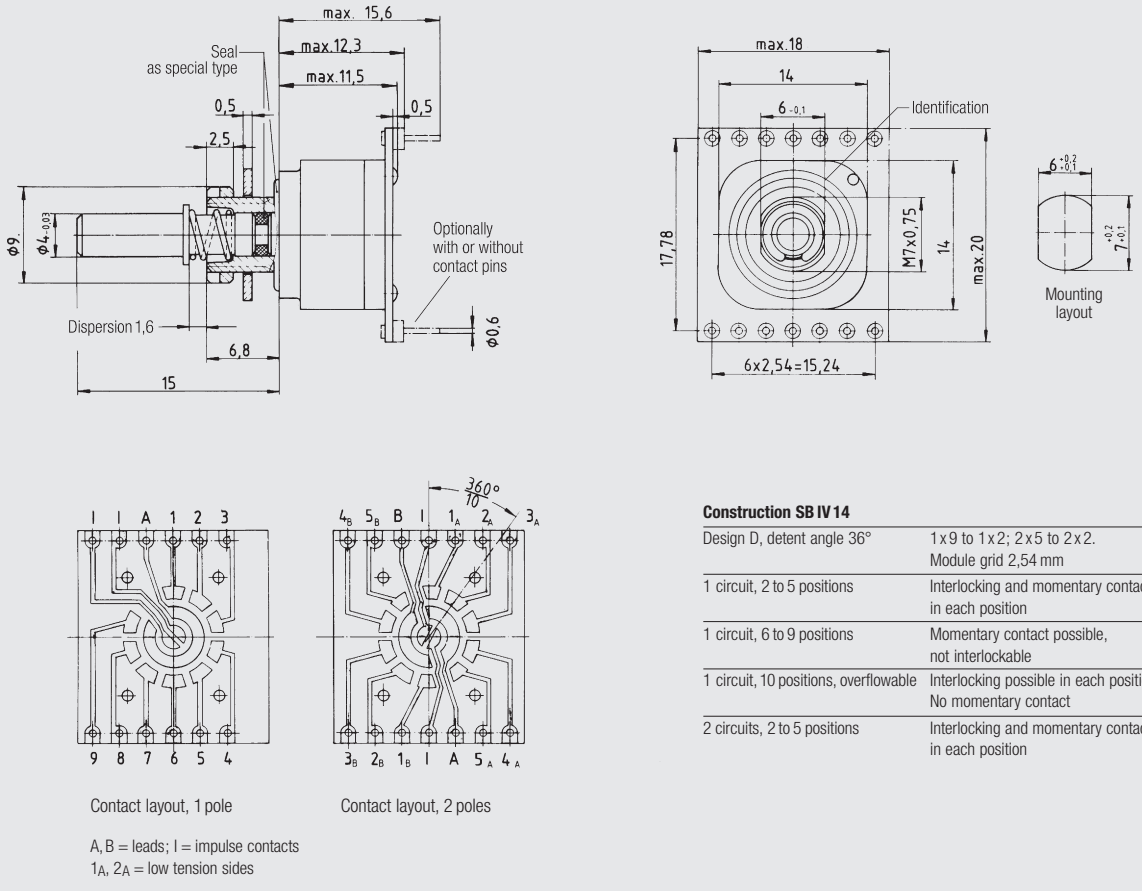
SBL12	1 [1]	2	D [3]	15 [4]	A [5]	6	7	PB [8]	9	10	11	12	13	2,00 [14]

Dimensional Drawings · Dimensions in mm



Ordering no. for non-turn protection frame 32411-59195

SBL12 with non-turn protection frame



Construction SB IV 14

Design D, detent angle 36°	1 x 9 to 1 x 2; 2 x 5 to 2 x 2. Module grid 2,54 mm
1 circuit, 2 to 5 positions	Interlocking and momentary contact possible in each position
1 circuit, 6 to 9 positions	Momentary contact possible, not interlockable
1 circuit, 10 positions, overflowable	Interlocking possible in each position. No momentary contact
2 circuits, 2 to 5 positions	Interlocking and momentary contact possible in each position

SBIV 14 with impulse contact