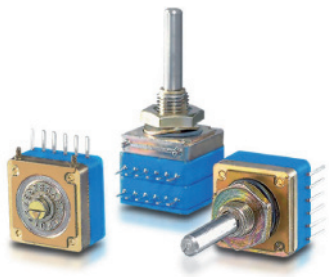
Klemi Contact
The connectables

CODE SWITCH
COMMUTATORI A CODICE

SC17

Commutatore a codice miniaturizzato multiuso | Multi codifica | A tenuta stagna | per PCB



Multi-purpose miniature code switch with many standard codes and detent angle variations.

- Standard codes:
  - BCD with even parity.
  - BCD with even parity and direct control of 7 segment displays.
  - BCD-complement: 2 out of 5, Excess 3, Gray, Aiken, Dezimal 0–9 (1 out of 10) and hexadecimal.
  - Further codes on request.
- Suitable for cleaning in ultrasonic bath.
- Same construction enables to use code switches and step switches (1 out of 10) together.
- Direct control of 7 segment displays simplifies the switching arrangement.
- Miniature dimensions: 17,0 x 17,0 x 11,4 mm – 1 wafer.
- Direct soldering to PC boards.
- Shaft parallel or vertical to PC board (single-wafer version).
- Operating by shaft or screwdriver slot.
- Very long life-expectancy.

Special versions

- Type SC M 17 approved acc. to VG 0095 318 T13.
- Version with self-returning detent mechanism on request.
- Version with thread M 10 x 0,75 and shaft 6 mm.
- Type SC D 17, detent angle 36°, with 2 wafers to be operated independently. Wafer 1 operated in normal shaft position, Wafer 2 operated by pushing the shaft. After operation the switch returns to normal position.

1.0 Construction

1.1 Number of wafers max.		3 wafers
1.2 Switching combinations per wafer Design B, detent angle 60°		Code on request
Design D, detent angle 36°		See code tables
Design E, detent angle 30°		Code on request
Design H, detent angle 22,5°		See code tables
Design N, detent angle 18°		Code on request
1.3 Contacts		Soldering pins
1.4 Mounting		Soldering, holding clamps or central mounting

2.0 Electrical Data

2.1 Switching power		3 VA/W max. $5 \cdot 10^{-7}$ W min.
2.2 Switching voltage		30 VV max. 10 mVV min.
2.3 Switching current		100 mA max. 50 µA min.
2.4 Rest current max. at ϑu 20 °C		0,5 A
2.5 Test voltage at 50 Hz		100 V
2.6 Life expectancy	without electrical load	≥ 50 000 cycles
	with power max.	≥ 20 000 cycles
2.7 Contact resistance	initial value	≤ 100 mΩ
after life expectancy	with electrical load	≤ 200 mΩ
2.8 Insulation resistance		$\geq 10^{10}$ Ω
2.9 Capacity between 2 contacts		≤ 2 pF
Capacity between contact and ground		≤ 2 pF

3.0 Mechanical Data

3.1 Stops	Fixed or without stop
3.2 Operating torque	3 bis 10 Ncm
3.3 Stop strength	≥ 70 Ncm
3.4 Vibratory strength	10 g, 10–500 Hz
3.5 Shock strength	50 g, 11 ms
3.6 Waterproofing	Watertight against front panel up to 0,2 bar
3.7 Cleaning *	Complete immersion in ultrasonic bath

* With known agents as Freon, Arklone etc.

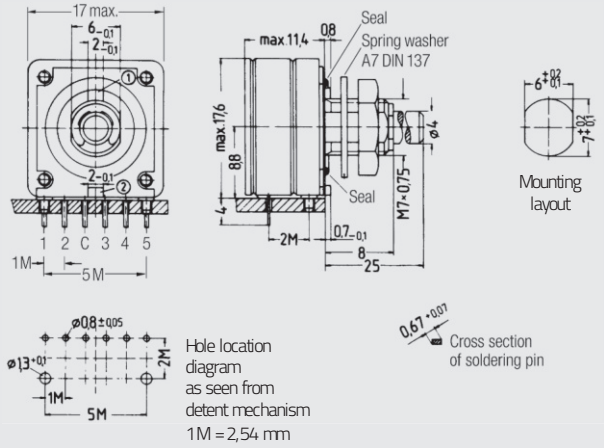
4.0 Other Data

4.1 Contact material		Au
4.2 Insulating material	Wafer	Polybutylenterephthalate, PBTP; Code PB
	Rotor	Epoxide glass laminate, EP
4.3 Soldering time and temperature max.		5 s at 260 °C

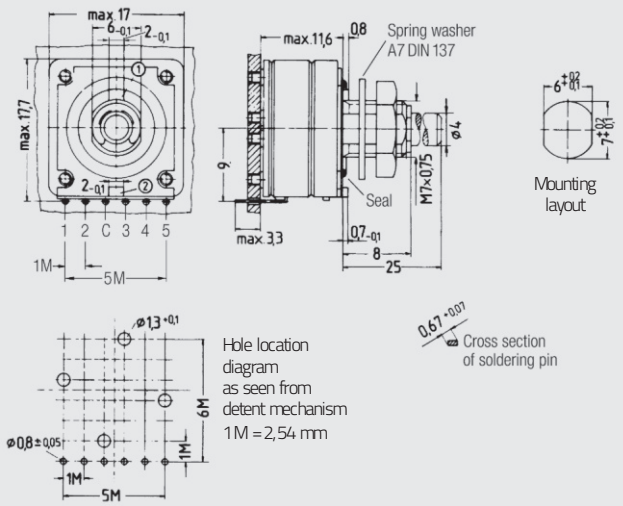
Ordering Codes

Designation of type	**SC 17**
1. Number of wafers	**1**, **2** or **3**
2. Code	**31, 52, 54, 56, 61, 71, 72** or **75**
3. Distribution over 360°	10 or 16
4. Shaft length	in mm
5. Shaft design	**A** = Standard, **D** = Turnscrew version
6. Switching limit	**00** = without stop (limit to XX positions)
7. Operating mode	**1** = Central mounting, **4** = Soldering pins
8. Direction of contacts	**A** = axial, **R** = radial

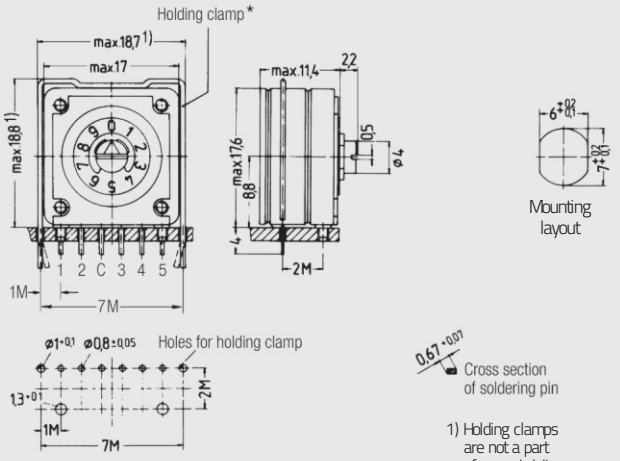
Dimensional Drawings · Dimensions in mm



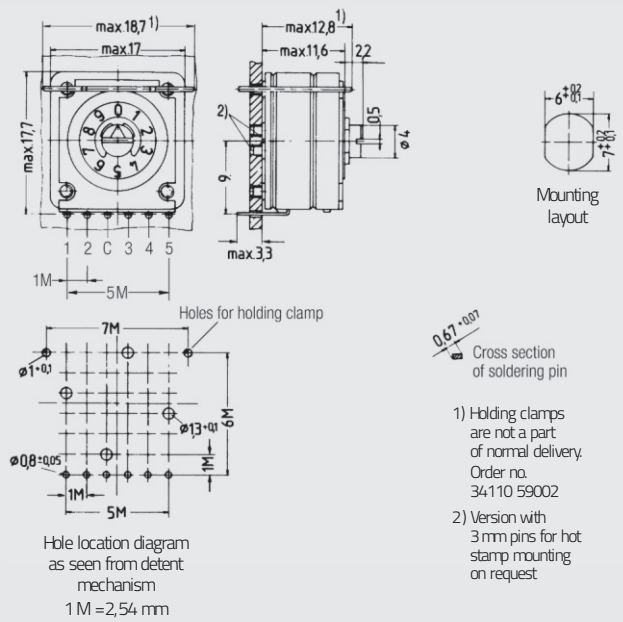
SC17 · Shaft version with single-wafer. Radial mounting



SC17 · Shaft version with single-wafer. Axial mounting

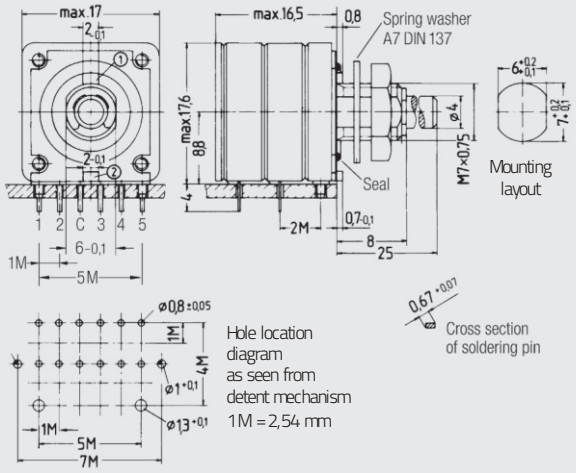


SC17 · Screwdriver slot version with single-wafer. Radial mounting

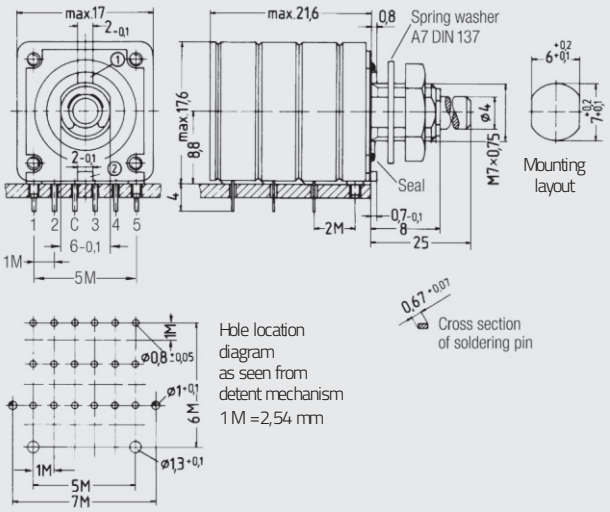


SC17 · Screwdriver slot version with single-wafer. Axial mounting

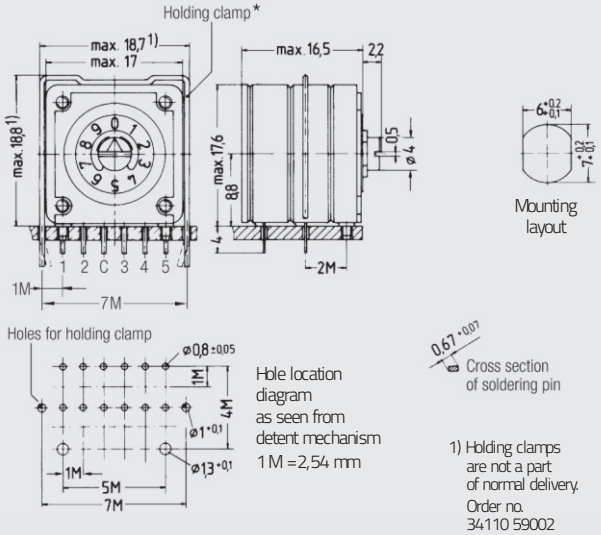
Dimensional Drawings · Dimensions in mm



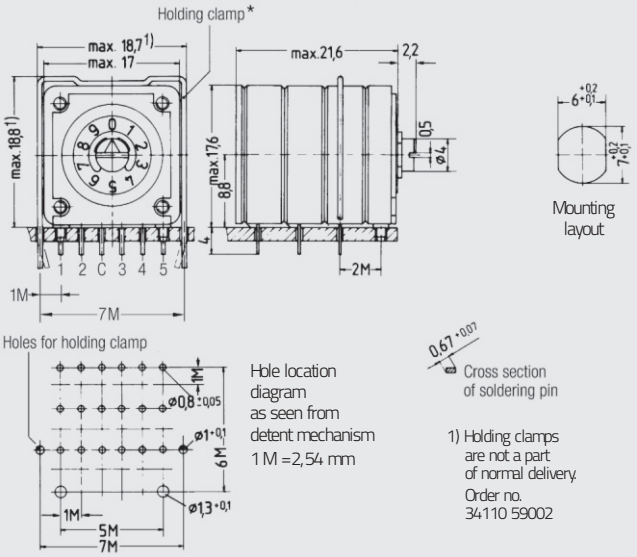
SC17· Shaft version with 2 wafers. Radial mounting



SC17· Shaft version with 3 wafers. Radial mounting



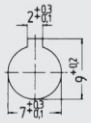
SC17· Screwdriver slot version with 2 wafers. Radial mounting



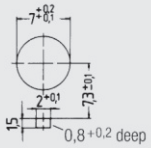
SC17· Screwdriver slot version with 3 wafers. Radial mounting

Dimensional Drawings and Codes · Dimensions in mm

Standard version

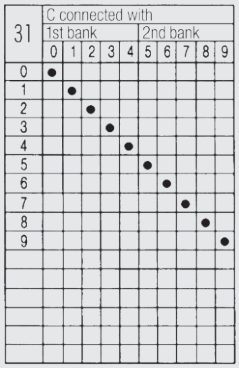


Special version for non-turn protection tab

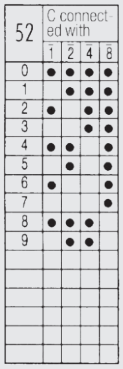


Special version with non-turn protection tab Distance 7,3 mm

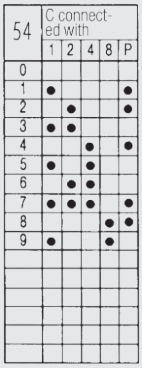
SC17· Mounting layouts for non-turn protection versions



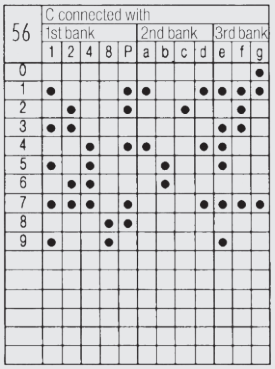
Code 31
Decimal 0 to 9



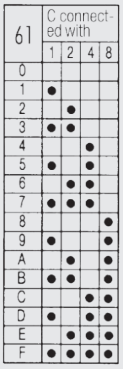
Code 52
BCD-Complement



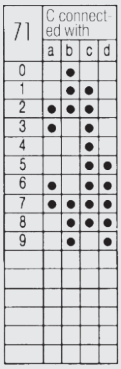
Code 54
BCD + even parity



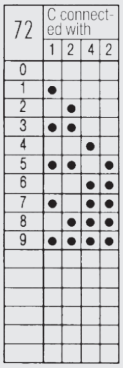
Code 56
BCD + even parity + 7 segment



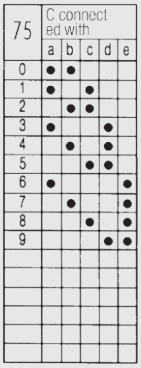
Code 61
Hexadecimal



Code 71
Excess 3, Gray



Code 72
Aiken



Code 75
2 of 5

For switches with two or three differently coded wafers, please specify code numbers successively starting with the first wafer after detent mechanism.

SC17· Codes

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