General_technical_data Series 18

Actuator with snap-action switching element

Switching system

The snap-action switching system was designed for switching low powers in electronic circuits. Single-break snap-action contact.

Material

Lens Polymethylacrylate (PMMA), Polycarbonate (PC)

Material of contact Gold contact on nickel plating

Actuator housing Polyamide, colour black

Mechanical characteristics

Terminals

The terminals can be used as soldering terminals. Max. wire diameter: $2 \times 0.5 \text{ mm}^2$ Max. wire cross-section of stranded cable $1 \times 0.75 \text{ mm}^2$ Wire cross-section of terminal $1.6 \times 0.4 \text{ mm}$

Tightening torque for fixing nut max. 20 Ncm

Actuating force

Actuating travel 2.2 mm ±0.2 mm

Rebound time ≤ 2.5 ms

Mechanical lifetime

Momentary action 2 million cycles of operation Maintained action 1 million cycles of operation, as per IEC 60512-5-9a

Electrical characteristics

Contact resistance $\leq 100 \,\mathrm{m}\Omega$ starting value (initial), as per IEC 60512-2-2b

Electrical life ≥ 500 000 cycles of operation at 30 VDC, 100 mA, as per IEC 60512-5-9c

Power consumption LED 20 mA

Switch rating min. 10µA at 100µV max. 100mA at 42VAC/VDC

Electric strength 500 VAC, 50 Hz, 1 min. between all terminals and earth, as per IEC 60512-2-11

Environmental conditions

Storage temperature -40 °C ... +80 °C

Service temperature $-25 \,^{\circ}\text{C} \dots + 65 \,^{\circ}\text{C}$

Protection degree IP 40 front side, as per IEC 60529

Shock resistance (Single impacts, semi-sinusodial) 50 g for 11 ms, as per IEC 60068-2-27

Vibration resistance

(sinusoidal) 10 g at 10–2000 Hz, amplitude 0.75 mm, as per IEC 60512-4-4