General_technical_data Series 70

Switching element illuminated

Switching system

Short-travel switching system with two independent contact points and tactile operation. Guarantees reliable switching even of very light loads. 1 normally open contact

Material

Material of contact Gold (Au)

Switching element Thermoplastic Polyester (PET, PBT) and Polyacetale (POM)

Mechanical characteristics

Actuating force with overlay foil 4 N $\pm 1,5$ N Max. actuating force > 50 N, as per DIN 42115

Actuating travel 0.4 mm

Rebound time ≤ 1 ms

Resistance to heat of soldering 260 °C, 5 s, as per IEC 60068-2-20

Mechanical lifetime > 5 million operations

Electrical characteristics

Contact resistance Starting value (initial) \leq 100 m Ω , as per IEC 60512-2-2b

Isolation resistance $\ge 1000 \text{ M}\Omega$

Contact resistance

 \leq 100 m Ω as per 500 000 cycles of operation at 12 VDC, 5 mA resistive load \leq 200 m Ω

Electrical life

 \geq 500 000 operations at 42 VDC, 50 mA, as per IEC 60512-5-9c When attention is paid to the direction of current flow from terminal 3/4 to 1/2 the electrical life can be prolonged.

Switch rating

max. 2 VA (resistive load)

Switch rating

Switching voltage VDC/VAC Switching current VDC/VAC Power rating min. 50 mV max. 42 V min. 10 μA max. 100 mA max. 2 W

Electric strength 500 VAC, 50 Hz, 1 min, as per IEC 60512-2-4a

Environmental conditions

Storage temperature -40 °C ... +85 °C

Operating temperature -25 °C ... +70 °C

General_technical_data Series 70

Switching element non-illuminated Part No. 70-100.0 and 70-101.0

Switching system

Short-travel switching system with two independent contact points and tactile operation. Guarantees reliable switching even of very light loads. 1 normally open contact

Material

Material of contact Silver (Ag)

Mechanical characteristics

Actuating force with overlay foil 5 N ±2 N Max. actuating force >50 N, as per DIN 42115 Actuating travel 0.3 mm

Rebound time ≤ 5ms

Mechanical lifetime > 1 million operations

Electrical characteristics

Isolation resistance

≥ 50 MΩ

Contact resistance

 \leq 100 m Ω as per 500 000 cycles of operation at 12 VDC, 5 mA resistive load \leq 200 m Ω

Electrical life

at 5 VDC, 1 mA $\,$ > 1 million operations at 24 VDC, 1 mA $\,$ > 100 000 operations

Switch rating ≤ 1 VA (resistive load)

Switch rating ≤ 24 VDC, ≤ 50 mA

Electric strength 250 VAC for 1 min.

Environmental conditions

Storage temperature -30 °C ... +85 °C

Operating temperature -20 °C ... +70 °C

General_technical_data Series 70

Switching element non-illuminated Part No. 70-201.0

Switching system

Short-travel switching system with two independent contact points and tactile operation. Guarantees reliable switching even of very light loads. 1 normally open contact

Material

Material of contact Gold (Au)

Switching element Thermoplastic Polyester (PET, PBT) and Polyacetale (POM)

Mechanical characteristics

Actuating force with overlay foil 2.1 N ±0.2 N Max. actuating force > 50 N, as per DIN 42115

Actuating travel max. 0.5 mm

Rebound time ≤ 1 ms

Resistance to heat of soldering 260 °C, 5 s, as per IEC 60068-2-20

Mechanical lifetime > 5 million operations

Front protection front with overlay foil IP 65

Electrical characteristics

Contact resistance

Starting value (initial) \leq 100 m Ω , as per IEC 60512-2-2b

Isolation resistance

≥ 1000 MΩ

Contact resistance

≤ 100 mΩ as per 500 000 cycles of operation at 12 VDC, 5 mA resistive load $\leq 200 \text{ m}\Omega$

Electrical life

≥ 500 000 operations at 42 VDC, 50 mA, as per IEC 60512-5-9c When attention is paid to the direction of current flow from terminal ¾ to ½ the electrical life can be prolonged.

max. 2 W

Switch rating

max. 42 V, 50 mA min. 50 mV, 10 µA

Switch rating

Switching voltage VDC/VAC Switching current VDC/VAC Switch rating

min. 50 mV max. 42 V min.10 mA max.100 mA

Electric strength

500 VAC, 50 Hz, 1 min, as per IEC 60512-2-4a

Environmental conditions

Storage temperature -40 °C ... +85 °C

Operating temperature -25 °C ... +70 °C