General_technical_data Series 02

Actuator with snap-action switching element

Switching system

1 or 2 self-cleaning, snap-action switching elements. 1 or 2 double-throw contacts.

Material

Material of contact

Standard version: Silver (U > 20 V) Special versions: (on request) Gold/Silver 700 Au/300 Ag (U < 50 V) Silver/Palladium 700 Ag/300 Pd (U > 20 V) for atmospheres containing sulphur

Switch housing Thermosetting material, heat-resistant

Indicator housing with reduced length Polyamide

Mechanical characteristics

Terminals

Screw terminal (with self-lifting clip): max. wire cross-section, $2 \times 2.5 \text{ mm}^2$ max. wire cross-section of stranded cable, $2 \times 1.5 \text{ mm}^2$

Tightening torque For fixing sleeve max. 20Ncm

Actuating force 6N...12N

Actuating travel

Mechanical lifetime Momentary action 2 million operations Maintained action 1 million operations

Electrical characteristics

Standards The switches comply with the "Standards for low-voltage switching devices" IEC 60947-5-1

Rated insulation voltage 400 VAC/440 VDC, as per IEC 60947-5-1

Conventional free air thermal current

10A

The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values.

Switch rating

400 VAC, 10 A, $\cos\phi$ 0.95, as per IEC 60947-5-1 250 VAC, 10 A, as per UL

Electric strength

2500 VAC, 50 Hz, 1 min. between all terminals and earth, as per IEC 60947-5-1

Environmental conditions

Storage temperature

-30°C...+85°C

Service temperature -25 °C ... +55 °C For indicators and illuminated pushbuttons mounted as a block, make sure the heat can escape freely.

Protection degree Front side IP 40, IP 65 with spray cover, as per IEC 60529

Shock resistance 15g for 11 ms, as per IEC 60068-2-27

Vibration resistance 10g at 10...2000 Hz, amplitude 1.0 mm, as per IEC 60068-2-6

Approvals

Approbations CB (IEC 60947-5-1) CSA Germanischer Lloyd UL

Declaration of conformity

CE

Buzzer

Buzzer system

System Electronic non-contacting buzzer with IC oscillator

Material

Buzzer case Thermosetting material

Front cap Polycarbonate (PC)

Front bezel Polymethylacrylate

Mechanical characteristics

Terminals Screw terminal

Tightening torque For fixing sleeve max. 20 Ncm

Electrical characteristics

Frequency (tone) Approx. 2.8 kHz

Sound pressure 85 dB (A) ± 8 dB at a distance of 0.1 m Volume variable with a $M\Omega$ potentiometer or corresponding fixed resistor

Operation Voltage/Current

typical 10...55VAC 10...75VDC 25mA 15mA

Keylock switch

The standard lock number is YB1 (Part No. 02-989.001) Additional lock numbers are available: 002 last digit = YB2; 003 last digit = YB3; 004 last digit = YB4 005 last digit = YB5; 046 last digit = YB46; 047 last digit = YB47 048 last digit = YB48; 049 last digit = YB49; 050 last digit = YB50

Environmental conditions

Storage temperature -40 °C ... +85 °C

Operating temperature -25 °C ... +55 °C

Protection degree Front side IP 40, as per IEC 60529

Approvals

Approbations CB (IEC 60947-5-1)

Declaration of conformity CE