

# Actuator

31-  
121.022

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## 31-121.022

### Actuator

#### PRODUCT RANGE

**Product Status:** Not Recommended for new design

#### FRONT

**Front dimension:** 24 mm x 18 mm

**Front form:** Rectangular

**Front bezel colour:** Black

**Front bezel material:** Plastic

#### MOUNTING

**Design:** Raised

**Mounting cut-out:** Ø 16 mm

**Mounting type:** Panel mounting

#### OPERATING-/INDICATION PART

**Lens illumination:** Illuminated

#### ELECTRICAL CHARACTERISTICS

**Switching voltage and switching current:**

- 250 VAC, 5 A (ohmic)
- 250 VAC, 3 A (Soldering terminal)
- 250 VAC, 2 A (inductive,  $\cos(\phi) = 0.7$ )
- 125 VAC, 3 A (inductive,  $\cos(\phi) = 0.7$ )
- 220 VDC, 0.1 A (inductive, L:R = 30 ms)
- 60 VDC, 0.7 A (inductive, L:R = 30 ms)
- 24 VDC, 2 A (inductive, L:R = 30 ms)

**Contacts:** 1 NC / 1 NO

**Rated Operational Voltage  $U_e$ :**

250 VAC/VDC

|  |  |
|--|--|
| <b>Switching rating:</b>               | 250 V @ 5 A  |
| <b>Electrical lifetime:</b>            | 50 000 cycles of operation   |
| <b>Electric strength:</b>              | 2500 VAC, 50 Hz, 1 minute, as per IEC 60512-2-11 between all terminals and earth |
| <b>Protection class:</b>               | II   |
| <b>Standards:</b>                      | According to EN/IEC 61058-1  |
| <b>Thermal current I<sub>th</sub>:</b> | 5 A  |

## MECHANICAL CHARACTERISTICS

|                             |  |
|-----------------------------|--|
| <b>Terminal:</b>            | Plug-in terminal, 2.8 x 0.5 mm   |
| <b>Contact material:</b>    | Gold   |
| <b>Switching action:</b>    | Momentary  |
| <b>Switching system:</b>    | Snap-action switching element  |
| <b>Switching system:</b>    | Self-cleaning, double-break snap action switching system (contact opening width 2 mm x 0.5 mm), 1 normally closed and 1 normally open contact per element. |
| <b>Mechanical lifetime:</b> | 2 Mil. cycles of operation   |
| <b>Operating force:</b>     | 2 N ... 5,5 N, depending on the number of switching elements   |
| <b>Operating Travel:</b>    | ca. 3 mm   |
| <b>Tightening torque:</b>   | Fixing nut max. 0.5 Nm   |
| <b>Wire cross section:</b>  | Max. wire cross-section 1 wire with 1.5 mm<br>Max. wire cross-section of stranded cable 2 of 0.75 mm <sup>2</sup> or 1 x 1.0 mm <sup>2</sup>               |
| <b>Weight:</b>              | 0.006 kg   |

## AMBIENT CONDITION

|                               |   |
|-------------------------------|---|
| <b>IP Protection:</b>         | IP40 front side, IP67 with front protective cap   |
| <b>Operating temperature:</b> | – 25 °C ... + 55 °C, mounted as a block, make sure the heat can escape freely                           |
| <b>Storage temperature:</b>   | – 40 °C ... + 85 °C   |
| <b>Shock resistance:</b>      | 15 g for 11 ms, as per IEC 60512-4-3, IEC 60068-2-27 (Single impacts, semi-sinusoidal)                  |
| <b>Vibration resistance:</b>  | 10 g at 10 Hz...2000 Hz, amplitude 1.5 mm (Sinusoidal), according to DIN EN 60512-4-4, DIN EN 60068-2-6 |
| <b>Climate resistance:</b>    | Standard condition according to IEC 60068-2-3<br>Changing condition according to IEC 60068-2-14         |

## **CERTIFICATE**

|                      |   |
|----------------------|---|
| <b>Approbations:</b> | CB (IEC 61058-1), CSA, DNV, ENEC (EN 61058-1), UL     |
| <b>Conformities:</b> | CE, UKCA, 2011 / 65 / EC (RoHS), 2014 / 35 / EU (LVD) |
| <b>REACH:</b>        | REACH compliant                                       |
| <b>RoHS:</b>         | RoHS compliant  |

## **OTHER**

**Short Description:**

Actuator, Ø 16 mm, 24 mm x 18 mm, Illuminated, Rectangular, Black, Plastic, 1 NC / 1 NO, Momentary, Plug-in terminal, 2.8 x 0.5 mm

**Internal size:**

21,5 mm x 15,3 mm

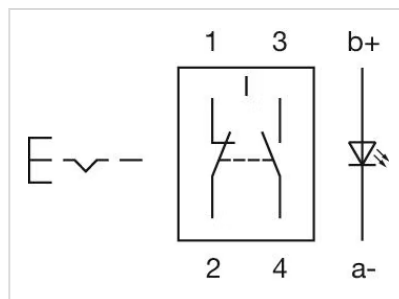
**Housing colour:**

Black

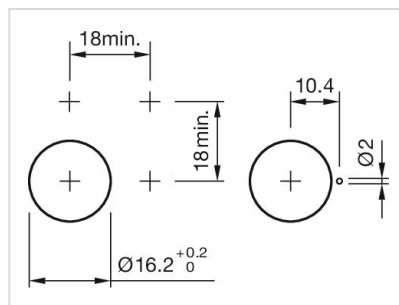
**max. number of switching elements:**

1

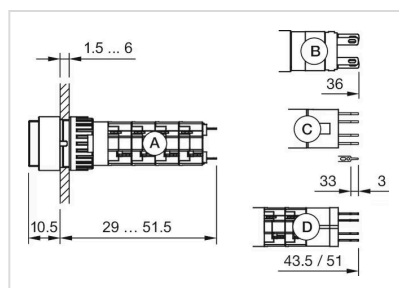
**Wiring diagrams:**



**Mounting cut-outs:**



**Dimension drawings:**



A = Solder terminal

B = Plug-in terminal 2.8 mm x 0.5 mm

C = Universal terminal 2.0 mm x 0.5 mm

D = Universal-Solder terminal