

# Actuator

51-  
144.025D2

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## 51-144.025D2 Actuator

### FRONT

**Front dimension:** Ø 18 mm

### MOUNTING

**Design:** raised

### ELECTRICAL CHARACTERISTICS

**Electric strength:** 2500 VAC, 50 Hz, 1 min. between all terminals and earth, according to IEC 61058-1, part 15

**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)  
110 VDC, 0.2 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)

**Thermal current I<sub>th</sub>:** 5 A, according to EN / IEC 60947-5-1  
The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values.

**Protection class:** II

**Rated Operational Voltage U<sub>e</sub>:** 250 VAC/DC according to EN IEC 60947-1

**Contacts:** 4 NC / 4 NO

**Standards:** According to EN/IEC 61058-1

**Electrical lifetime:** 50 000 cycles of operation

### MECHANICAL CHARACTERISTIC

**Switching system:** Snap-action switching element

**Terminal:** Soldering terminal

<b>Switching action:</b>	Rest (a) - Momentary
<b>Tightening torque:</b>	Fixing nut max. 0.5 Nm
<b>Switching angle:</b>	42° right
<b>Contact material:</b>	Gold
<b>Wire cross section:</b>	Snap-action switching element with tinned soldering terminals at the sides Max. wire diameter 2 wires à 1.2 mm Max. wire cross-section of stranded cable 1 x 1 mm <sup>2</sup>
<b>Switching system:</b>	Self-cleaning, double-break snap action switching system, 1 normally closed and 1 normally open contact per element.
<b>Operating force:</b>	4 N ... 6 N
<b>Switching positions:</b>	2 positions
<b>Weight:</b>	0.026 kg
<b>Mechanical lifetime:</b>	50 000 cycles of operation

## AMBIENT CONDITION

<b>Shock resistance:</b>	15 g for 11 ms, as per DIN / EN 60512-4-3, DIN / EN 60068-2-27 (Single impacts, semi-sinusoidal)
<b>Climate resistance:</b>	Standard condition, as per DIN EN 60068-2-30 Changing condition, as per DIN EN 60068-2-14
<b>Vibration resistance:</b>	10 g at 10 Hz...1500 Hz, amplitude 0.75 mm (Sinusoidal), according to DIN EN 60512-4-4, DIN EN 60068-2-6
<b>IP front protection:</b>	IP65, according to DIN EN 60529
<b>Operating temperature:</b>	– 25 °C ... + 55 °C
<b>Storage temperature:</b>	– 40 °C ... + 85 °C

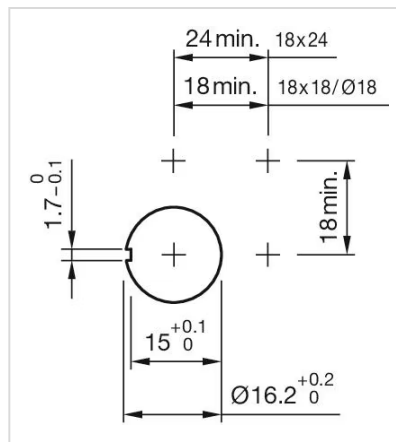
## CERTIFICATE

<b>Conformities:</b>	CE, UKCA, 2011 / 65 / EC (RoHS), 2014 / 30 / EU (EMC), 2014 / 35 / EU (LVD)
<b>Approbations:</b>	CB (IEC 61058-1), CQC, CSA, DNV, ENEC (EN 61058-1), UL

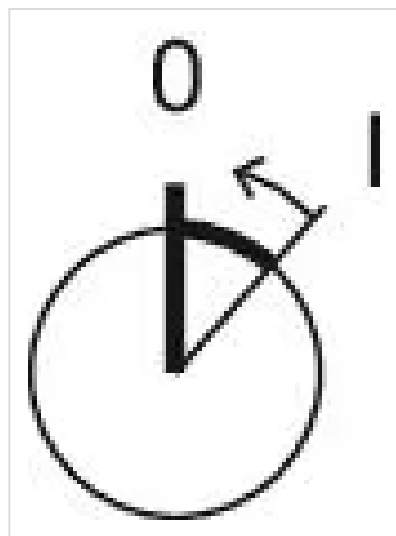
## OTHER

<b>Housing colour:</b>	Black
<b>Hints:</b>	Standard lock: DOM 311
<b>max. number of switching elements:</b>	4
<b>Short Description:</b>	Actuator, Ø 18 mm, 4 NC / 4 NO, Rest (a) - Momentary, Soldering terminal, IP65, according to DIN EN 60529

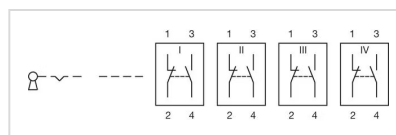
### Mounting cut-outs:



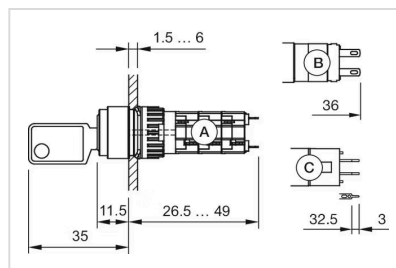
### Switching positions:



### Wiring diagrams:



### 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