

# Actuator

51-  
151.022F



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## 51-151.022F Actuator

### MOUNTING

<b>Design:</b>	Flush
<b>Mounting type:</b>	Panel mounting

### OPERATING-/INDICATION PART

<b>Lens illumination:</b>	Illuminated
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### ELECTRICAL CHARACTERISTICS

<b>Switching voltage and switching current:</b>	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)
<b>Contacts:</b>	1 NC / 1 NO
<b>Rated Operational Voltage <math>U_e</math>:</b>	250 VAC/DC according to EN IEC 60947-1
<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 min. between all terminals and earth, according to IEC 61058-1, part 15
<b>Protection class:</b>	II
<b>Standards:</b>	According to EN/IEC 61058-1
<b>Thermal current <math>I_{th}</math>:</b>	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.

### 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, 1 normally closed and 1 normally open contact per element.
<b>Mechanical lifetime:</b>	2 Mil. cycles of operation
<b>Operating force:</b>	1,8 ... 6 N, depending on the number of switching elements
<b>Operating Travel:</b>	3 mm
<b>Tightening torque:</b>	Fixing nut max. 0.5 Nm
<b>Wire cross section:</b>	Snap-action switching element with axial soldering terminals, which can also be used as plug-in terminals 2.8 x 0.5mm Max. wire diameter 2 wires of 1 mm 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>	0.007 kg

## AMBIENT CONDITION

<b>IP front protection:</b>	IP65, according to DIN EN 60529
<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 DIN / EN 60512-4-3, DIN / EN 60068-2-27 (Single impacts, semi-sinusoidal)
<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>Climate resistance:</b>	Standard condition, as per DIN EN 60068-2-30 Changing condition, as per DIN EN 60068-2-14

## CERTIFICATE

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

## OTHER

<b>Short Description:</b>	Actuator, Illuminated, 1 NC / 1 NO, Momentary, Plug-in terminal, 2.8 x 0.5 mm, IP65, according to DIN EN 60529
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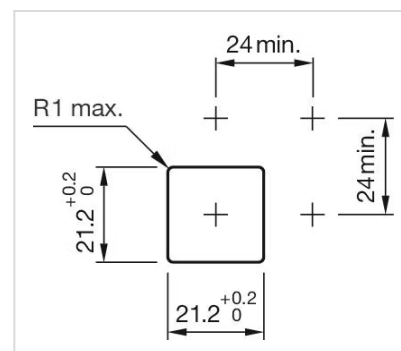
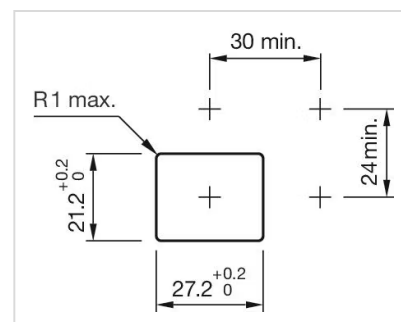
Black

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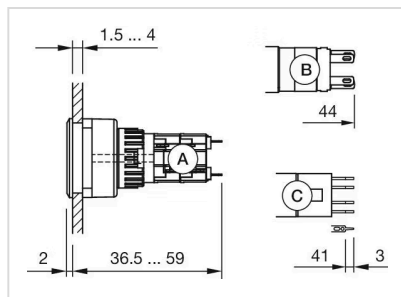
Figure 1: Dimensions of the test specimens. (a) shows three circular specimens with diameters of 17.0 mm, 18 mm, and 18 mm x 24 mm. (b) shows three square specimens with side lengths of 17.0 mm, 18 mm, and 18 mm x 24 mm. Each specimen has a central circular hole with a diameter of 6.35 mm. The hole is offset from the center by 1.27 mm in both the horizontal and vertical directions. The hole is surrounded by a 1.27 mm thick ring. The specimens are labeled (a) and (b) in the bottom left corner.

A = Universal terminal (rear side)  
B = Plug-in terminal (rear side)  
C = Anti twist device  
D = Drilling plan

Technical drawing illustrating a hole and shaft assembly. The hole diameter is specified as  $\varnothing 22.3^{+0.3}_0$ . The shaft diameter is indicated as 25 min. The minimum clearance between the hole and the shaft is shown as 25 min. The drawing includes dimension lines and arrows indicating the minimum clearance.



**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