

# Actuator

51-  
154.0252F



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## 51-154.0252F 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>	4 NC / 4 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 @ 3 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>	The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values. 3 A

### MECHANICAL CHARACTERISTICS

<b>Terminal:</b>	Soldering terminal
<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 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>Weight:</b>	0.01 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, EAC, ENEC (EN 61058-1), UL, VDE
<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, 4 NC / 4 NO, Momentary, Soldering terminal, IP65, according to DIN EN 60529
<b>Housing colour:</b>	Black

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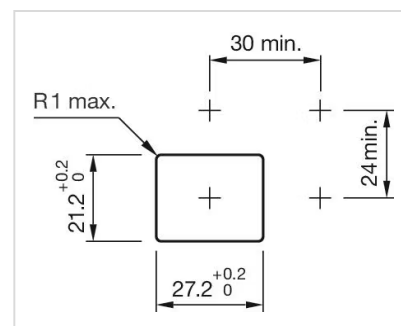
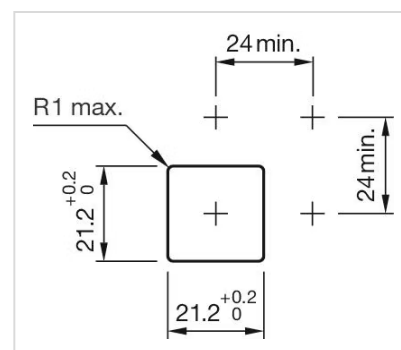
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Figure 1: Dimensions of the test specimens. The figure shows six circular specimens (A, B, C, D, E, F) and two cross-sectional views (G and H). Specimens A, C, and E have a diameter of 70 mm. Specimens B, D, and F have a diameter of 18 mm x 18 mm. Specimens G and H are cross-sections of the specimens, showing a diameter of 70 mm and a thickness of 18 mm. The cross-sections also show a central hole with a diameter of 10 mm and a distance of 2.65 mm from the center to the edge of the hole.

Technical drawing of a hole in a plate. The hole is circular with a diameter of  $\varnothing 22.3^{+0.3}_0$ . The plate has a thickness of 25 mm. The hole is positioned 25 mm from the top edge and 25 mm from the right edge. The hole is centered horizontally.



Technical drawing of the 1000 series motor showing side and end views with dimensions:

- Side View (Left):** Shows the motor's profile. Dimensions include a mounting flange width of 1.5 ... 4, a total length of 36.5 ... 59, and a base width of 2.
- End View (Top Right):** Shows the motor from the front. It features a circular terminal box labeled 'B' and a mounting flange with four screws. The distance from the center of the terminal box to the center of the mounting flange is 44.
- End View (Bottom Right):** Shows the motor from the rear. It features a circular terminal box labeled 'C' and a mounting flange with four screws. The distance from the center of the terminal box to the center of the mounting flange is 41, and the total width of the mounting flange is 3.

A = Solder terminal  
B = Plug-in terminal 2.8 mm x 0.5 mm  
C = Universal terminal 2.0 mm x 0.5 mm