

Actuator

51-
281.022F



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Your product:



51-281.022F Actuator

MOUNTING

Design:	Flush
Mounting type:	Panel mounting

OPERATING-/INDICATION PART

Lens illumination:	Illuminated
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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) 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)
Contacts:	1 NC / 1 NO
Rated Operational Voltage U_e:	250 VAC/DC according to EN IEC 60947-1
Switching rating:	250 V @ 5 A
Electrical lifetime:	50 000 cycles of operation
Electric strength:	2500 VAC, 50 Hz, 1 min. between all terminals and earth, according to IEC 61058-1, part 15
Protection class:	II
Standards:	According to EN/IEC 61058-1
Thermal current I_{th}:	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

Terminal:	Plug-in terminal, 2.8 x 0.5 mm
Contact material:	Gold
Switching action:	Maintained
Switching system:	Snap-action switching element
Switching system:	Self-cleaning, double-break snap action switching system, 1 normally closed and 1 normally open contact per element.
Mechanical lifetime:	1 Mil. cycles of operation
Operating force:	1,8 ... 6 N, depending on the number of switching elements
Operating Travel:	3 mm
Tightening torque:	Fixing nut max. 0.5 Nm
Wire cross section:	Snap-action switching element with axial soldering terminals, which can also be used as plug-in terminals 2.8 x 0.5mm Max. wire cross-section of stranded cable 2 of 0.75 mm ² or 1 x 1.0 mm ² Max. wire diameter 2 wires of 1 mm
Weight:	0.008 kg

AMBIENT CONDITION

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

CERTIFICATE

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

OTHER

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

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The diagram shows a 2D lattice structure. A central square unit cell is labeled with vertices 1 (top-left), 3 (top-right), 2 (bottom-left), and 4 (bottom-right). Inside this square, there are four vertical lines, one near each vertex, and a horizontal dashed line connecting the two lines on the left. To the left of the square is a symbol consisting of a vertical line with a horizontal bar and a diagonal line. To the right of the square is a vertical line with a diode symbol (a triangle pointing down) and a dashed line. The top of the vertical line is labeled 'x2+' and the bottom is labeled 'x1-'.

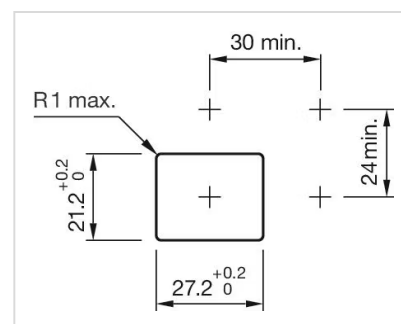
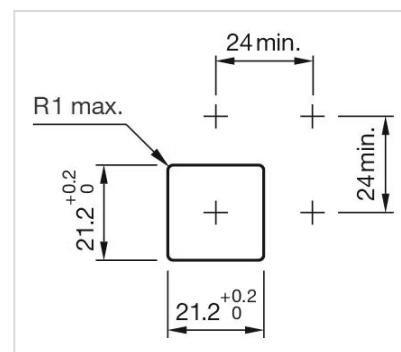
Figure 1 illustrates the dimensions of the test specimens. The specimens are categorized into three groups: A (circular), B (square), and C (rectangular). The dimensions for each group are as follows:

- Group A:** Circular specimen with a diameter of $\varnothing 18$ mm.
- Group B:** Square specimen with a side length of $18\text{ mm} \times 18\text{ mm}$.
- Group C:** Rectangular specimen with a side length of $18\text{ mm} \times 24\text{ mm}$.

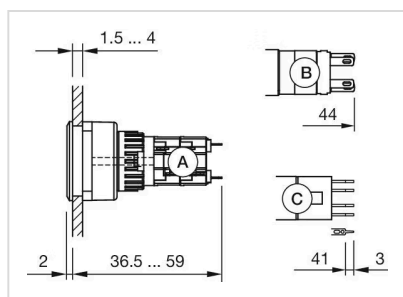
Each specimen features a central circular hole with a diameter of $\varnothing 1.2$ mm. The detailed cross-section diagram on the right shows the hole's position relative to the specimen's edges, with a distance of 7.5 mm from the top and bottom edges, and a distance of 7.5 mm from the left and right edges.

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

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 width of 25 mm and a height of 25 mm. The hole is positioned 25 mm from the top edge and 25 mm from the left edge. The drawing includes dimension lines and arrows indicating the 25 mm distances and the 25 mm width and height of the plate.



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