EAO – Your Expert Partner for
Human Machine Interfaces

82-5153.1133.B097 Illuminated pushbutton 19mm stainless-steel, momentary

82-5153.1133.B097 Illuminated pushbutton 19mm stainless-steel, mom 12V Green Engine Start_ Stop



Configuration Number: 82-10-001737

Mounting

Mounting cut-out	Ø 19 mm
Design	flush

Front

Front dimension	Ø 22 mm
Front shape	round
Front ring shape	flush
Front bezel material	Stainless steel

Other Attributes

LED Operating voltage	12 V AC/DC
Weight	0.018 kg
Operation current	10 mA

Operating-/Indication part

Lens optics	opaque
Lens material	Stainless steel
Lens profile	flat, Engine Start _ Stop
Lens illumination	ring llumination
Lens colour	Stainless steel

IP-Rating

Front protection	IP65, IP67, IK10

Connection Method

Terminal	Solder, plug-in 2.8 x 0.5 mm

Actuator

Switching action	Momentary

Switching element

Switching current	5 A
Contact material	Gold-plated silver
Contacts	1 C
Switching system	Snap-action switching element
Switching voltage	250 V AC
Typical switch ratings	1A@24VDC, 0.5A@220VAC

Illumination

Illumination	Ring with green LED

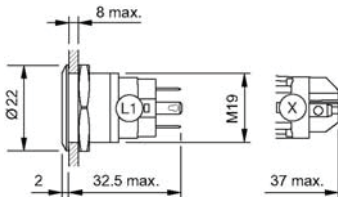
Function

Illuminated pushbutton

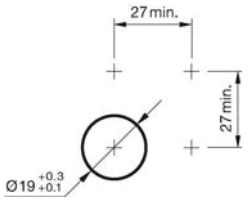
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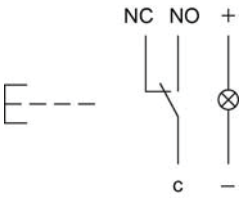
Dimensions



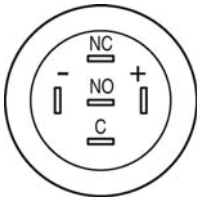
Mounting cut-outs



Wiring diagram



Component layout



Legend

Switching action: B = Momentary
Contacts: C = Changeover

Indicator, Pushbutton, Illuminated pushbutton

Switching system

Snap-action changeover contact normally closed / normally open.
Switching function momentary or maintain.

Material

Housing
Stainless-steel
Stainless-steel chrome-coloured
Brass gold-coloured
Aluminium natural anodized

Terminal housing
Polyamide 66 (PA66)

Contact material
Silver alloy
Silver contacts gold-plated

Mechanical characteristics

Mounting cut-out
Ø 16 mm +0.3/+0.1 mm
Ø 19 mm +0.3/+0.1 mm
Ø 22 mm +0.3/+0.1 mm

Terminals
Soldering/plug-in terminals 2.8 x 0.5 mm
Screw terminal

Tightening torque
5 Nm min. – 12 Nm max. for fixing nut

Actuating force
4 … 7 N

Actuating travel
3 mm

Mechanical lifetime

Pushbutton momentary	1 Mio. cycles of operation
Pushbutton maintain	500 000 cycles of operation

Resistance to heat of soldering
Hand-soldering max. 260 °C, 3 sek.

Electrical characteristics

Rated Operational Voltage U_e
250 VAC

Rated Insulation Voltage U_i
250 V

Illumination
LED red, green, blue, yellow and white
LED and series resistor with polarity protection are built in.

LED-Voltage	Tolerance	Current	Consumption
6 VAC/DC	±10 %	15 mA	0.1 W
12 VAC/DC	±10 %	14 mA	0.17 W
24 VAC/DC	±10 %	10 mA	0.24 W
110 VAC	±10 %	2 mA	0.22 W
230 VAC	±10 %	1.3 mA	0.29 W

Contact resistance
<50 mΩ

Electrical life
50 000 cycles of operation (full load)

Switch rating IEC 60947-5-1 (Silver contacts)
Switch rating AC cosφ 0.3 service categorie AC-15

Voltage	Current
24 VAC	1 A
110 VAC	1 A
220 VAC	0.5 A

Switch rating DC service categorie DC-13 (Silver contacts)

Voltage	Current
24 VDC	0.7 A
110 VDC	0.2 A
220 VDC	0.1 A

Switch rating UL 508 (Silver contacts)
Switch rating AC cosφ 0.75 … 0.8)

Voltage	Current
120 VAC	5 A
240 VAC	3 A

Switch rating DC

Voltage	Current
24 VDC	1 A

Recommended minimum operational data
according to DIN EN 60947-5-4

	Silver contacts	Silver contacts gold-plated
Voltage	17 VAC/DC	1 VAC/DC
Current	50 mA	5 mA

Conventional free air thermal current I_{th}
5 A
The maximum current in continuous operation and at ambient temperature must not exeed the quoted maximum values.

Electrical strength
1500 VAC, 50 Hz 1 min. between life terminals and ground

Isolation resistance
500 VDC at min. 10 MΩ according to IEC 60512-2

82 Technical data

Environmental conditions

Storage temperature
-40 °C … +80 °C

Operating temperature
-30 °C … +70 °C

Front protection
IP 65 and IP 67, as per IEC 60529

Impact resistance
IK 10, as per IEC 62262

Shock resistance
max. 500 m/s2 according to IEC 60068-2-27

Degree of pollution
2, as per EN IEC 60947-1

Vibration resistance
10 … 500 Hz, amplitude 1.5 mm p-p according to IEC 60068-2-6

EAO reserves the right to alter specifications without further notice.

Climate resistance
Damp heat, 21 days according to IEC 60512-11

Stainless steel and alumimium versions:
Saline mist, 96 hours according to IEC 60512-11

Brass versions:
Saline mist, 24 hours according to IEC 60512-11

Approvals

Approbations
CB
UL
C UL
CCC

Declaration of conformity
CE