

# EAO – Your Expert Partner for Human Machine Interfaces

## 82-4151.1000 - Pushbutton 16 mm stainless-steel

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*Attention: The preview is based on a sample product. This can differ from your current configuration.*

Configuration number : 82-10-000020

#### Mounting

Mounting cut-out Ø 16 mm  
Design flush mount

#### Front

Front shape round  
Front ring shape flush  
Front dimension Ø 18 mm  
Front bezel material Stainless steel

#### Other Attributes

Weight 0.018 kg

#### Operating-/Indication part

Lens optics opaque  
Lens material Stainless steel  
Lens colour Stainless steel  
Lens profile flat lens  
Lens illumination non-illuminated

#### 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 Max Thermal Ith2  
Contact material Silver  
Contacts 1 C  
Switching system Snap-action switching element  
Switching voltage 250 V AC  
Typical switch rating 0.7A@24VDC, 0.5A@220VAC

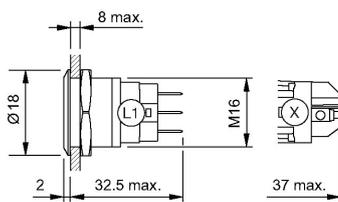
#### Function

Pushbutton

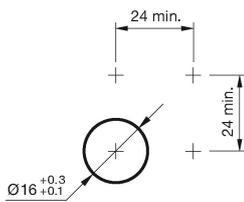
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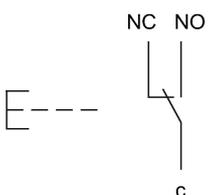
## Dimensions



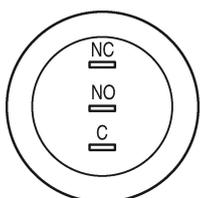
## Mounting cut-outs



## Wiring diagram



## Component layout



## Legend

Switching action: B = Momentary  
Contacts: C = Changeover

**Pushbutton**

**Switching system**

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

**Material**

**Housing**

Stainless-steel polished or brushed  
Brass nickel-plated or galvanically gold-plated

**Terminal housing**

Polyamide 66 (PA66)

**Contact material**

Silver alloy

**Mechanical characteristics**

**Mounting cut-out**

Ø19 mm +0.3/+0.1 mm

**Terminals**

Soldering terminals 2.8 x 0.5 mm

**Tightening torque**

5 Nm min. – 12 Nm max. for fixing nut

**Actuating force**

3 ... 6 N

**Actuating travel**

Pushbutton momentary 2.5 mm  
Pushbutton maintain 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 260 °C, 3 sek.

**Electrical characteristics**

**Rated Operational Voltage  $U_o$**

250 VAC

**Rated Insulation Voltage  $U_i$**

250 V

**Illumination**

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

Voltage	Current
3.5 VDC	15 mA
6 VAC/DC	15 mA
12 VAC/DC	14 mA
24 VAC/DC	10 mA
110 VAC	2 mA
230 VAC	1.3 mA

**Contact resistance**

<50 mΩ

**Electrical life**

100 000 cycles of operation

**Switch rating IEC 60947-5-1**

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

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

**Switch rating UL 508**

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

**Conventional free air thermal current  $I_{th}$**

5 A

The maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

**Electrical strength**

2500 VAC, 50 Hz 1 min. between life terminals and ground  
1000 VAC, 50 Hz 1 min. between life terminals

**Isolation resistance**

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

**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 09, as per IEC 62262

**Shock resistance**

max. 500 m/s<sup>2</sup> according to IEC 60068-2-27

**Degree of pollution**

2, as per EN IEC 60947-1

## Pushbutton

### **Vibration resistance**

10 ... 55 Hz, amplitude 1.5 mm p-p according to IEC 60068-2-6

### **Climate resistance**

Damp heat, 21 days according to IEC 60512-11

Saline mist, 96 hours according to IEC 60512-11

### **Approvals**

#### **Approbations**

CB

UL

CCC

#### **Declaration of conformity**

CE