

# RAMO 22 T, M12, round collar, momentary contact function, frontring black, 1 NO, bezel blue



#### fields of application

- > Measurement-control-regulation
- > Electrical engineering
- > Mechanical and system engineering
- > Vehicle construction
- > Chemical industry
- > Industrial robots

#### special features

- > Key stroke with tactile feedback or mushroom pushbutton with latching
- > Based on the RAFI MICON 5 short-travel keyswitch with gold contacts, which has proven itself millions of times over
- > Single-part, closed housing
- Unique series with easiest Plug&Play connection
- > Completely tailored design fits the RAFIX range of control components
- > Installation size: 22.3 mm
- > Plug & Play connection M12
- > Custom print options, including FLEXLAB
- > Can be illuminated in many colors
- > Redundant version with 2 NO contacts
- > Pushbutton with black mushroom head



#### description

Because it features the RAFI MICON 5 tactile switch. RAMO 22 T offers tactile feedback with a noticeable click. Due to the IP 66/ IP69K degree of protection, it is recommended in particular for plant engineering and construction. RAMO 22 T requires a mounting hole diameter of 22.3 mm.

As a further product variant, the RAMO 22 T mushroom pushbutton offers a latching pushbutton option for every application. It is characterised by form and function as for an emergency stop, but is only declared as a pushbutton. Various contact functions are possible.

#### Additional information according to UL certificate:

- Only approved for Class 2 Power Source or Limited Voltage / Limited Current.
- > Installation only by trained specialist personnel.
- > Type 4x Indoor only with cable "Cat. No. 7000-08061-0210100 PUR 4x0.25mm2 with M8 connector, rated max. 30VAC/DC 4A, manufactured by Murrelektronik GmbH" and "Cat. No. 7000-12221-0340100 PUR 4x0.34mm2 with M12 connector, rated max. 30VAC/DC 4A, manufactured by Murrelektronik GmbH"
- > For Use on a Flat Surface of a Type 1 or 4x indoor only Enclosure.

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#### technical data

#### > general

Potential free yes Color black

Bezel color blue

Property of bezel / mushroom translucent

Collar color black Front ring color black Luminous element color blue Collar shape round Operating temperature, min. -40 °C Operating temperature, max. 85 °C Storage temperature, min. -40 °C Storage temperature, max. 85 °C illuminated Yes

Luminous elements LED Packaging Box Packaging unit 10 pcs. net weight

Operating life 500,000 cycles

650,000 cycles

Degree of protection, front side, **IP66** according to DIN EN 60529 IP67

IP69 IP66

12.6 g

Degree of protection, rear side, according to DIN EN 60529 IP67

UL Enclosure Type Rating front type 4X indoor

side

Environment resistance IEC 60068-2-14

> IEC 60068-2-30 IEC 60068-2-33 IEC 60068-2-78 IEC 60068-2-11

Pollution degree 2

Salt-spray resistance according to

standard

05 Impact resistance IK MOQ order 10 pcs.

Pollution degree acc. to DIN EN

61010-1

RoHS compliant Yes **REACH** compliant Yes

### > mounting diameters

Outside dimension, length 40 mm Outside dimension, width 29.8 mm Outside dimension, height 29.8 mm Mounting hole 22.3 mm Mounting depth 30.2 mm Installation height 9.8 mm

direct links

> RAFI eCatalog

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Grid, min. 30 mm

> mechanical data

Actuation function momentary contact function

Operating force, max. 12 N
Operating force, min. 5 N
Operating travel, max. 1 mm
Resistance to force on the side 300 N
Contact function 1 NO
Contact material Gold

Fixing Threaded ring

Threaded ring torque, max. 1.2 Nm

Terminal on the rear M12 4-pin A-coded
PIN 1 Normally open contact 1

PIN 2 LED + PIN 3 GND

PIN 4 Normally open contact 1

> electrical data

Rated insulation voltage 250 V Rated surge voltage 800 V

Rated operating voltage 35 V (AC-15)

35 V (DC-13)

Operating voltage of the luminous

element, min.

20 V 28 V

Operating voltage of the luminous

element, max.

Rated voltage, min. 0.02 V Rated voltage, max. 35 V

Rated voltage, max. acc. to UL 30 V DC (42,4 V peak)

60947

Voltage type DC
Rated operating current 0.1 A
Rated operating voltage 0.02-35 V
Rated current, min. 0.00001 A
Rated current, max. 0.1 A
Rated power, max. 1 W

Power loss 0.70030 W

Overvoltage category 2

Kind of short circuit protective fuse 250 V / 0,1 A / 1,5 kA gG quick

device

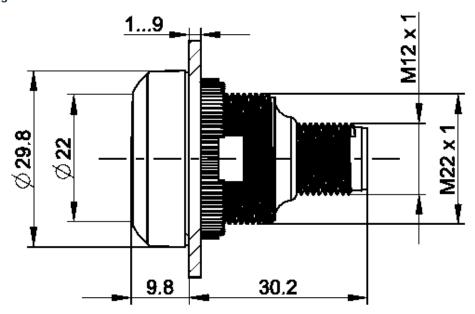
Conditional short circuit current 1,000 A

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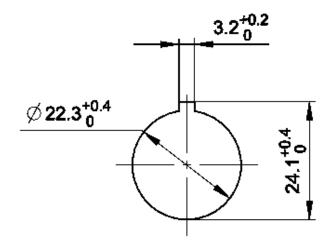


### drawings

#### **Dimensioned drawing**



#### Mounting hole drawing



acc. to IEC 60947-5-1



#### Schematic diagram

