

# RAMO 22 S, M12, round collar, 2 NO, Gold, M12 8-pin A-coded, frontring black, 1 x 90°, 1 x 40°, latching / momentary



#### fields of application

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

#### special features

- > Precise haptics
- > Safe gold contacts
- > Simple M12 plug&play connection
- > Protected contacts due to sealed housing











### description

The RAMO S selector switches offer a solution for every application thanks to a wide variety of contact functions, rotation angles, actuation functions and illuminated panels.

Just like all RAMO actuators, connection is simple using Plug&Play and without any manual wiring - with M12 sensor cables.

Additional information according to UL certificate:

For Class 2 Power Source or Limited Voltage / Limited Current only

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.

### technical data

/	g	е	n	е	r	d	l

Bezel color

Potential free no Color black

white Property of bezel / mushroom transparent

Operating temperature, max.

Collar color black Front ring color black Luminous element color white Collar shape round -40 °C Operating temperature, min.

described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products are the mere results of individual technical testing. These descriptions and other product features are only binding if they expressly agreed upon at the time of the conclusion of a binding contract. In all other cases, we reserve the right to make technical changes as well as changes of availability. Pictures and other graphic illustrations are approximations only. All product names may be trademarks or brand names of the RAFI Group or any other sub-supplier of RAFI. The use of such by any third parties for their own

85 °C

RAFI GmbH & Co. KG

direct links

> RAFI eCatalog

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-40 °C Storage temperature, min. Storage temperature, max. 90 °C illuminated Yes Luminous elements **LED** Packaging Box Packaging unit 2 pcs. net weight 16.5 g

Operating life 200,000 cycles B10 250,000 cycles

Degree of protection, front side, according to DIN EN 60529

Degree of protection, rear side,

according to DIN EN 60529

UL Enclosure Type Rating front

side

Environment resistance IEC 60068-2-14 IEC 60068-2-30

IEC 60068-2-78

IEC 60068-2-11

5 g at 10...500 Hz

Pollution degree 2

30 g at 11 ms amplitude semi-sinusoidal

type 4X indoor

**IP65** 

IP65

Shock resistance according to standard IEC 60068-2-27

standard

Salt-spray resistance according to

Impact resistance IK 02 side

08 frontal

oscillation restistance according

to standard IEC 60068-2-6

MOQ order 2 pcs.

Pollution degree acc. to DIN EN

61010-1

Yes

**REACH** compliant Yes

RoHS compliant

> mounting diameters

Outside dimension, length 29.8 mm Outside dimension, width 29.8 mm Outside dimension, height 53.9 mm Mounting hole 22.3 mm Mounting depth 30.1 mm 23.8 mm Installation height Grid, min. 30 mm

> mechanical data

Actuation function latching / momentary

Resistance to force on the side 300 N Contact function 2 NO Contact material Gold

Rotating angle 1 x 90°, 1 x 40° Fixing Threaded ring

Threaded ring torque, max. 1.2 Nm

Terminal on the rear M12 8-pin A-coded

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PIN 1 Normally open contact 1

Normally open contact 2

PIN 2 Normally open contact 2

PIN 3 **GND** 

PIN 4 Normally open contact 1

PIN 5 LED +

> electrical data

Rated insulation voltage 250 V Rated surge voltage 2,500 V Rated operating voltage 35 V (AC-15)

35 V (DC-13)

22 V

Operating voltage of the luminous

element, min.

Operating voltage of the luminous 26 V

element, max.

Rated voltage, min. 1 V 32 V Rated voltage, max. DC Voltage type 1-32 V Rated operating voltage Operating current of the luminous 25 mA

element, max.

Rated current, max. 0.1 A

Power loss 0.70080 W

Overvoltage category

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

device

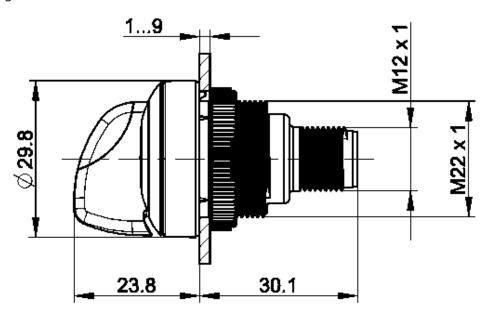
Conditional short circuit current 1,000 A

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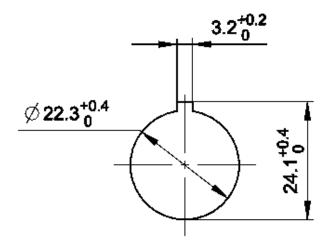


### drawings

#### **Dimensioned drawing**



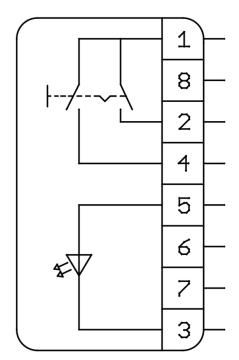
#### Mounting hole drawing



acc. to IEC 60947-5-1



#### Schematic diagram





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