

special features

> Precise haptics

Safe gold contacts

Simple M12 plug&play connection

> Protected contacts due to sealed housing

# RAMO 22 S, M12, round collar, 2 NO, Gold, M12 4-pin A-coded, frontring black, 1 x 90°, shape L, latching



#### fields of application

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

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#### 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 4x0.25mm<sup>2</sup> with M8 connector, rated max. 30VAC/DC 4A,

manufactured by Murrelektronik GmbH" and "Cat. No. 7000-12221-0340100 PUR 4x0.34mm<sup>2</sup> 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

> general		
Potential free	no	direct links
Color	black	> RAFI eCatalog
Bezel color	white	
Property of bezel / mushroom	transparent	
Collar color	black	
Front ring color	black	
Collar shape	round	
Operating temperature, min.	-40 °C	
Operating temperature, max.	85 °C	
Storage temperature, min.	-40 °C	

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# 1.10.021.003/0021



	Storage tomporature, may	90 °C
	Storage temperature, max. illuminated	No
	Packaging	Box
	Packaging unit	2 pcs.
	net weight	2 pcs. 16.9 g
	Operating life	200,000 cycles
	B10	250,000 cycles
	Degree of protection, front side,	IP65
	according to DIN EN 60529	1 00
	Degree of protection, rear side, according to DIN EN 60529	IP65
	UL Enclosure Type Rating front side	type 4X indoor
	Environment resistance	IEC 60068-2-14
		IEC 60068-2-30
		IEC 60068-2-78
	Shock resistance according to standard IEC 60068-2-27	30 g at 11 ms amplitude semi-sinusoidal
	Salt-spray resistance according to standard	IEC 60068-2-11
	Impact resistance IK	02 side
		08 frontal
	oscillation restistance according to standard IEC 60068-2-6	5 g at 10500 Hz
	MOQ order	2 pcs.
	Pollution degree acc. to DIN EN 61010-1	Pollution degree 2
	RoHS compliant	Yes
	REACH compliant	Yes
>	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
	Installation height	23.8 mm
	Grid, min.	30 mm
>	mechanical data	
	Actuation function	latching
	Resistance to force on the side	300 N
	Contact function	2 NO
	Contact material	Gold
	Rotating angle	1 x 90°, shape L
	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
		Normally open contact 2

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	PIN 2	Normally open contact 2
	PIN 3	GND
	PIN 4	Normally open contact 1
>	electrical data	
	Rated insulation voltage	250 V
	Rated surge voltage	2,500 V
	Rated operating voltage	35 V (AC-15) 35 V (DC-13)
	Operating voltage of the luminous element, min.	22 V
	Operating voltage of the luminous element, max.	26 V
	Rated voltage, min.	1 V
	Rated voltage, max.	32 V
	Voltage type	DC
	Rated operating voltage	1-32 V
	Operating current of the luminous element, max.	25 mA
	Rated current, max.	0.1 A
	Power loss	0.00080 W
	Overvoltage category	2
	Kind of short circuit protective device	fuse 250 V / 0,1 A / 1,5 kA gG quick
	Conditional short circuit current	1,000 A



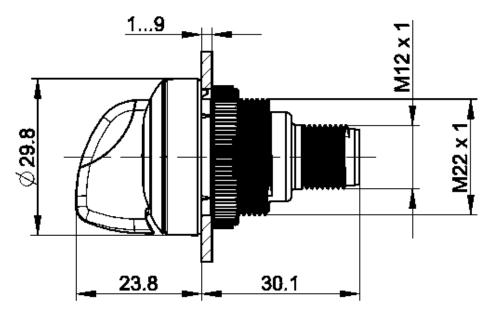


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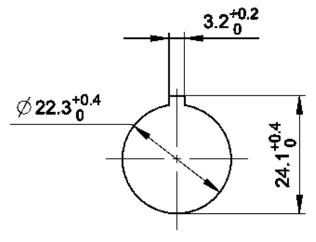


#### drawings

#### **Dimensioned drawing**



#### Mounting hole drawing



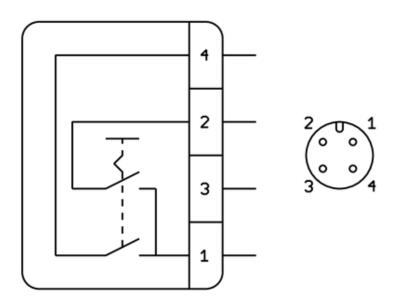
acc. to IEC 60947-5-1

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#### Schematic diagram



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