

special features

> Precise haptics

Safe gold contacts

> Simple M12 plug&play connection

> Protected contacts due to sealed housing

RAMO 22 S, M12, round collar, 1 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 4x0.25mm² 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

> general			
Potential free	yes	direct links	
Color	black	> RAFI eCatalog	
Bezel color	white		
Property of bezel / mushroom	transparent		
Collar color	black		
Front ring color	black		
Luminous element color	white		
Collar shape	round		
Operating temperature, min.	-40 °C		
Operating temperature, max.	85 °C		

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	Storage temperature min	-40 °C
	Storage temperature, min.	-40 °C 90 °C
	Storage temperature, max. illuminated	Yes
	Luminous elements	LED
	Packaging	Box
	Packaging unit	2 pcs.
	net weight	
	Operating life	16.9 g 200,000 cycles
	B10	250,000 cycles
	Degree of protection, front side,	1P65
	according to DIN EN 60529	
	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
	shock resistance	02 side
		08 frontal
	oscillation restistance according	5 g at 10500 Hz
	to standard IEC 60068-2-6	2
	MOQ order	2 pcs.
	Pollution degree acc. to DIN EN 61010-1	Pollution degree 2
	Pollution degree acc. to DIN EN	
	Pollution degree acc. to DIN EN 61010-1	Pollution degree 2
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant	Pollution degree 2 Yes
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant	Pollution degree 2 Yes
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters	Pollution degree 2 Yes Yes
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length	Pollution degree 2 Yes Yes 29.8 mm
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width	Pollution degree 2 Yes 29.8 mm 29.8 mm
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, height	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, height Mounting hole	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm
>	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, height Mounting hole Mounting depth	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function Resistance to force on the side	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching 300 N
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function Resistance to force on the side Contact function Contact material	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching 300 N 1 NO Gold
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function Resistance to force on the side Contact function Contact material Rotating angle	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching 300 N 1 NO Gold 1 x 90°, shape L
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function Resistance to force on the side Contact function Contact material Rotating angle Fixing	Pollution degree 2 Yes 29.8 mm 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30.1 mm 30 mm latching 300 N 1 NO Gold 1 x 90°, shape L Threaded ring
	Pollution degree acc. to DIN EN 61010-1 RoHS compliant REACH compliant mounting diameters Outside dimension, length Outside dimension, width Outside dimension, width Outside dimension, height Mounting hole Mounting depth Installation height Grid, min. mechanical data Actuation function Resistance to force on the side Contact function Contact material Rotating angle	Pollution degree 2 Yes 29.8 mm 29.8 mm 53.9 mm 22.3 mm 30.1 mm 23.8 mm 30 mm latching 300 N 1 NO Gold 1 x 90°, shape L

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	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	2,500 V
	Rated operating voltage	35 V (AC-15)
		35 V (DC-13)
	Operating voltage of the luminous	22 V
	element, min.	
	Operating voltage of the luminous	26 V
	element, max.	
	Rated voltage, min.	1 V
	Rated voltage, max.	32 V
	Voltage type	DC
	Rated operating voltage	1-32 V
	Operating current of the luminous	25 mA
	element, max.	
	Rated current, max.	0.1 A
	Power loss	0.00040 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

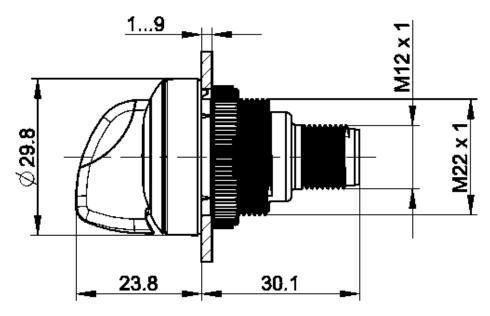
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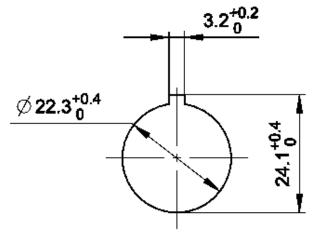


drawings

Dimensioned drawing



Mounting hole drawing



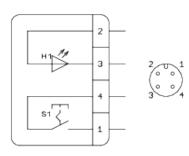
acc. to IEC 60947-5-1

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Schematic diagram



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