

Metal push-button with M12 connector

new



See below:

### Approvals and Compliances

#### Description

- Mechanical switch with stroke MO (Momentary)
- RGB illumination
- With torsion protection for easier positioning
- M12-8 pins
- Easy and fast installation

#### Unique Selling Proposition

- Attractive tactile feedback
- High quality materials
- Long life span
- Color marking and variety of design options regarding size, color and illumination

#### Characteristics

- Housing material in stainless steel
- Actuator in stainless steel or ceramic
- Switching voltage from 30 VDC to 125 VAC
- Switching current from 0.1 A to 2 A, with gold 100mA

#### References

Other versions on request

#### Weblinks

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#), [Configurator](#)

#### Technical Data

##### Electrical Data

Switching Function	See table of Subminiature Microswitch
Supply Voltage LED	5 VDC - 24 VDC, see table of variants
Impulse Withstand Voltage (ESD)	8 kV contact discharge
	15 kV air discharge

##### Mechanical Data

Actuating Force	4.5 N
Actuating Travel	1.0 mm
Lifetime	1.5 million actuations
Shock Protection	IK07
Mounting screw torque Plastic Nut	max. 3.5 Nm

##### Climatical Data

Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 85 °C
Protection Class	IP66 and IP67 Front Side
Salt Spray Test (acc. to IEC 60068-2-11)	24 h / 48 h / 96 h Residence Time

##### Material

Housing	Aluminium / Stainless Steel
Actuator	Aluminium / Stainless Steel / Ceramics
Seal Ring	NBR70
Plastic Nut	PA, UL94





#### Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

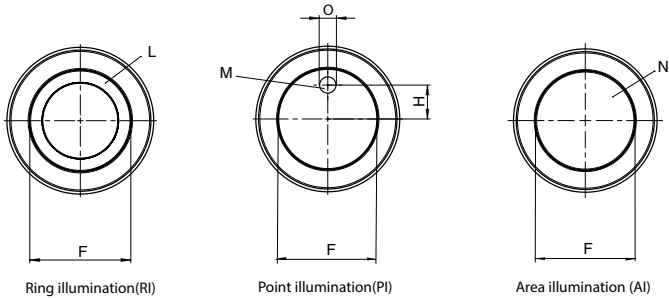
SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

Compliances

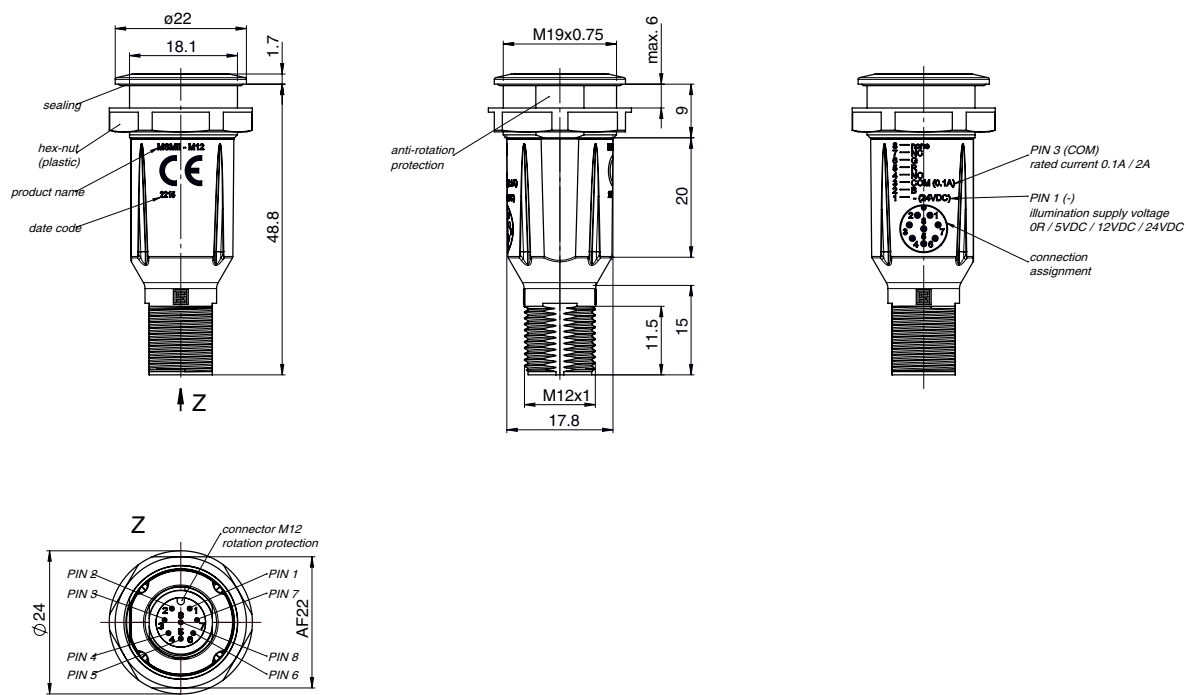
The product complies with following Guide Lines

Identification	Details	Initiator	Description
	<a href="#">CE declaration of conformity</a>	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	<a href="#">UKCA declaration of conformity</a>	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
	<a href="#">RoHS</a>	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	<a href="#">REACH</a>	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

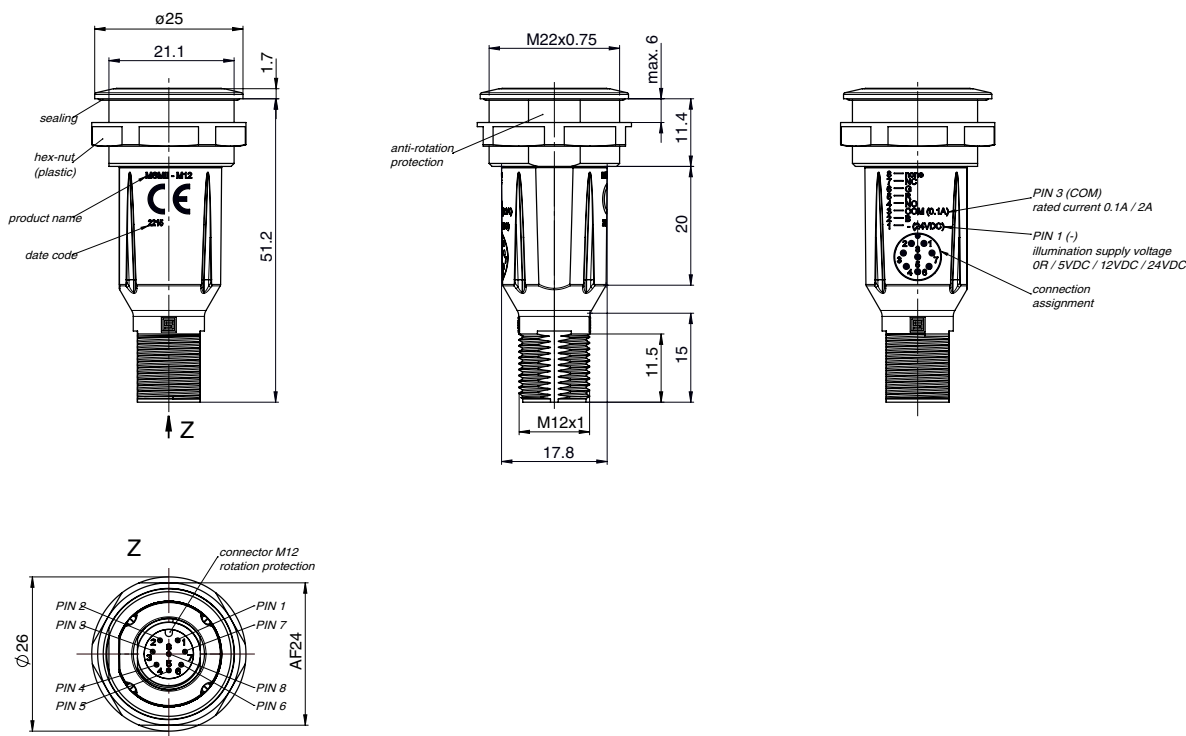
Dimension [mm]  
Illuminated push buttons



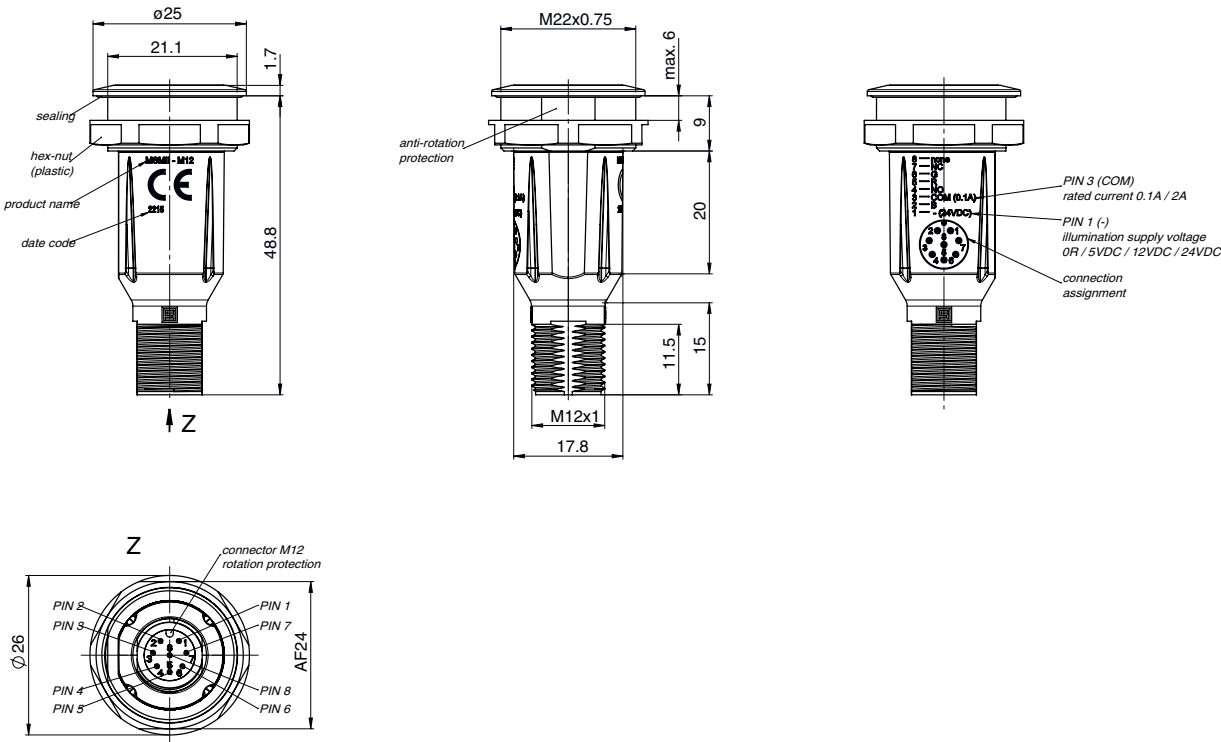
**MSM II M12 19 RI SPDT**



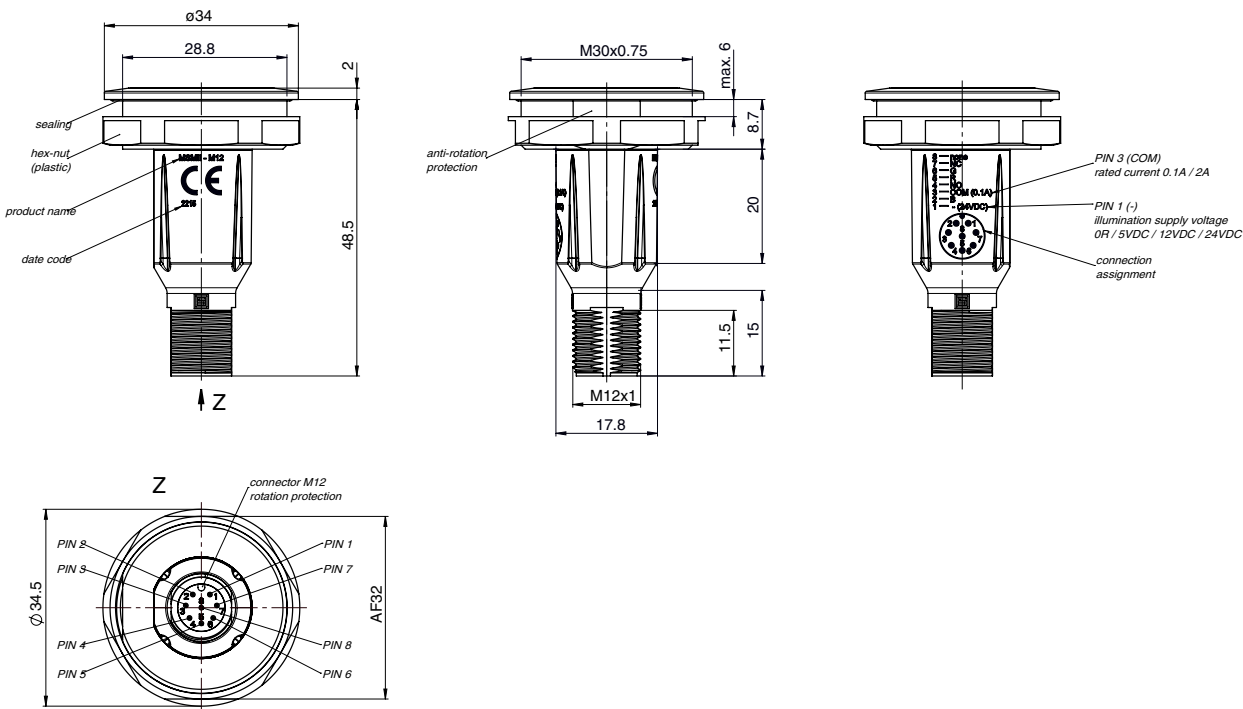
**MSM II M12 22 AI SPDT**



MSM II M12 22 RI SPDT



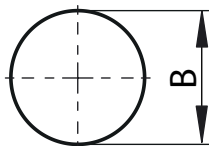
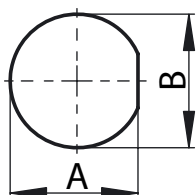
MSM II M12 30 RI SPDT



## Dimension

All illuminated products and all non illuminated push buttons with symbols are supplied with anti-rotation protection

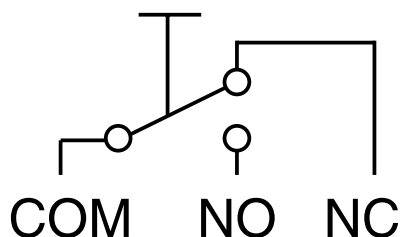
Non-illuminated push-buttons are supplied without anti-rotation protection



Diameter (mm)	A	B
19	18.15+0.05	19.1 +0.1
22	21.15+0.05	22.1 +0.1
30	28.85+0.05	30.1 +0.1

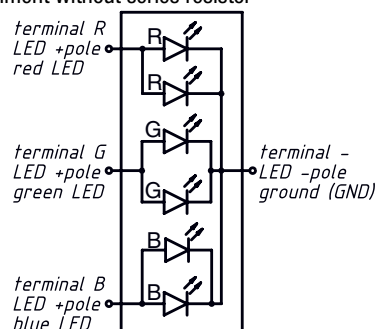
## Diagrams

Switching element SPDT



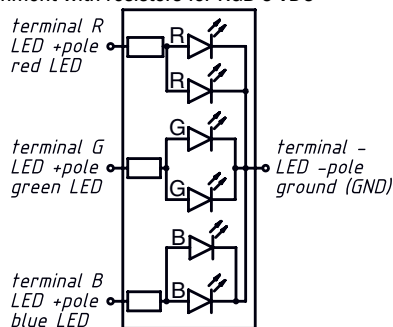
Illumination RGB

Terminal assignment without series resistor



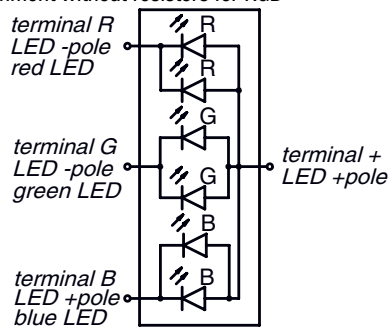
Illumination RGB

Terminal assignment with resistors for RGB 5 VDC



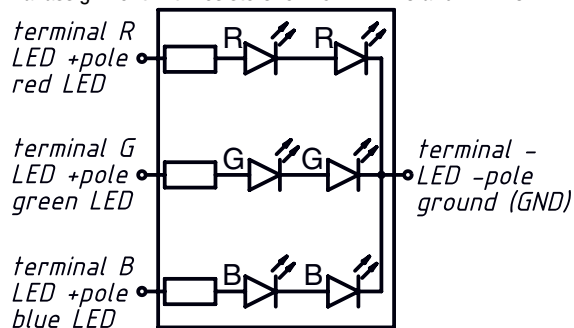
common anode

Terminal assignment without resistors for RGB



Illumination RGB

Terminal assignment with resistors for RGB 12 VDC and 24 VDC



Illumination options for RGB

Lighting type	Wire red	Wire green	Wire blue	Resulting Color
Multicolor Singlecolor	x			Red
Multicolor Singlecolor		x		Green
Multicolor Singlecolor			x	Blue
Multicolor RGB Additive 2	x	x		Yellow
Multicolor RGB Additive 2	x		x	Magenta
Multicolor RGB Additive 2		x	x	Cyan
Multicolor RGB Additive 3	x	x	x	White

**Illumination**

Operating Data	Forward Current max.	Forward Voltage at 10 mA	Forward Voltage max.
LED red	25 mA	1,7 VDC	2,4 VDC
LED green	25 mA	2,6 VDC	3,2 VDC
LED blue	25 mA	2,6 VDC	3,2 VDC

**Subminiature Microswitch**

Subminiature Microswitch	Contact Material	Switching Voltage	Switching current	Rated Switching Capacity	Lifetime	Contact Resistance	Insulation Resistance	Duration of Bounce
0.1 A, IP40	Au	max. 30 VDC	max. 0.1 A	3 W	0.1 Mio.	< 100 mΩ	> 100 MΩ	< 10 ms
3 A , IP40	Ag	max. 125 VAC	max. 3 A	375 W	0.03 Mio.	< 30 mΩ	> 100 MΩ	< 10 ms

## Order number key

M	S	M	II	-	19	-	MO	NX	A10	-	B	2	-	B	C1	-	A	-	PI	0GN	012	C	C1	-	S0	NC	B	-	S0	NC	NF	-	1	074	-	C
					1		*				2								3	4	5	6	*	*	*		7				8	*				

Diameter			1
19 mm	=		19
22 mm	=		22
30 mm <sup>2)</sup>	=		30

Switch function		*
Switch	=	MONX

Switching current		2
Switch with Subminiature SPDT / M12-8 pin		
100 mA Gold contact	=	A10-B2-BC1-A
2 A	=	02A-B2-BC1-A

Illumination / Appearance		3
Area illumination	=	AI
Ring illumination	=	RI
Point illumination	=	PI
Ring illumination Discreet/DeadFront	=	RD

Illumination / Color		4
Multicolor	=	RGB

Supply voltage illumination		5
5 V	=	005
12 V	=	012
24 V	=	024
LED without resistor	=	00R

Supply voltage illumination		6
None	=	0
Common Cathode	=	C
Common Anode	=	A

Housing material and color		*
Stainless steel 1.4305 (Silver)	=	S0NC
Aluminum EN AW-6082 (3.3215) (Black)	=	A0BK

Actuator material		7
Stainless steel 1.4305 (Silver)	=	S0NC
Ceramic (only with stainless steel) (White)	=	C0WT
Aluminum (only on RD version) (Black)	=	A0BK

Marking type		8
None	=	0000
Laser marking		
STOP	=	1057
ON	=	1065
OFF	=	1066
ON/OFF	=	1071
START	=	1072
	=	1074
	=	1075
	=	1076
	=	1077

further lettering on request

Accessories		*
Hex nut plastic with O-ring	=	C

Stainless steel nut can be ordered additionally

0098.9260	Stainless steel nut M16
0098.9250	Stainless steel nut M19
0098.9253	Stainless steel nut M22
0098.9216	Stainless steel nut M30

2) 30 mm diameter not available with Area Illumination

\* Values marked with an asterisk depend on the selected properties.

**Variants**

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-154-823
22mm	2A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-155-024
22mm	2A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-155-971
22mm	2A	SPDT	common cathode	IP40	area illumination	multicolor	w/o resistors	3-155-973
30mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	w/o resistors	3-155-037

Availability for all products can be searched real-time: <https://www.schurter.com/en/info-center/support-tools/stock-check-distributors>

**Packaging unit**
10 pcs.
 In box or packed in air cushion bags



The nut with gasket and micro switch are enclosed in the box.