#### Piezo Switch N.O.





PSE M22 with cable PUR

PSE M<sub>30</sub>

#### See below:

#### **Approvals and Compliances**

## **Description**

- Designed for IP67 applications
- Tight housing, potted PUR-Cable
- Switch with Ring Illumination
- PUR-Cable with 15m length
- RGB: flexible input voltage 5 28 VDC at constant brightness
- 7 possible colors with RGB configuration

#### **Unique Selling Proposition**

- Designed for IP67 applications
- Waterproof from the front surface to the connection point
- High quality PUR cable 15m
- RGB illumination and variable input voltage

#### **Characteristics**

- Housing material: stainless steel 1.4462, ring illumination made of poly-
- For use in harsh environments, both indoors and outdoors (see technical data)

#### Other versions on request

- Switch for longer switching signal duration, type: PSE IV
- Switch for explosion proof applications, type: PSE EX
- Switch with enhanced vandal proof protection, type: PSE HI

Alternative: switch vandal improved: PSE HI 22 Alternative: switch for EX-proof applications:

Alternative: Other diameter

Alternative: switch with prolonged signal: PSE AE 16; PSE AE

30; PSE IV 19

#### Weblinks

pdf data sheet, html datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product

#### **Technical Data**

Electrical Data	
Switching Function	momentary
Supply Voltage RGB	5 - 28 VDC
Switching Voltage	max. 42 / 60 VAC/DC
Switching current	max. 100 mA
Electrical Rating	1 W
Lifetime	20 million actuations at Rated Switching
	Capacity
Switch Resistance OFF	$> 10 \text{ M}\Omega$
Switch Resistance ON	$< 20 \Omega$ actuated (Ta = 25°C)
Capacity	5 nF
N.O. Closing Impulse Duration	20- 1000 ms depending on actuating
	force, time and speed
Contact Configuration	free polarity
RGB Illumination	
Current Consumtion (max per	16.5 mA @ 5 VDC
color)	
	8.2 mA @ 12 VDC
	5.5 mA @ 24 VDC
	4.8 mA @ 28 VDC

Mechanical Data			
Actuating Force	≤ 3 N at ambient temperature		
Actuating Travel	0.002 mm		
Shock Protection	IK02		
Mounting screw torque	2.5 Nm		
Climatical Data			
Operating Temperature	-40 to 85 °C		
Storage Temperature	-40 to 85 °C		
IP-Protection	IP67 acc. to IEC 60529, IP69K acc. to DIN 40050-9		
Environmental Assessment	+55°C / 93% r.h. acc. to DIN EN 60068-2-30		
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time		
Material			
Housing (depending on type)	Stainless Steel 1.4462		
Actuating Area / Insert (with	Stainless Steel 1.4462		
Ring Illumination)			
Illuminated Ring (Ring Illumi-	Polyamide		
nation)			

#### **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.

## **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
0	Suitable for applications acc.	EMC Directive:	EMC directive 2014/30/EU
	Suitable for applications acc.	MIL-STD:	202F Method 107G, 202F Method 204D, 202F Method 213B, 416D Method RS103, 810E Method 501.3, 810E Method 502.3, 810E Method 507.3
VDE	Suitable for applications acc.	VDE Certificate Number:	DIN EN 61000-4-2, DIN EN 61000-4-4, DIN EN 61000-4-5
<u>IEC</u>	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

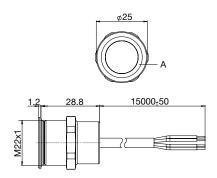
## Compliances

The product complies with following Guide Lines

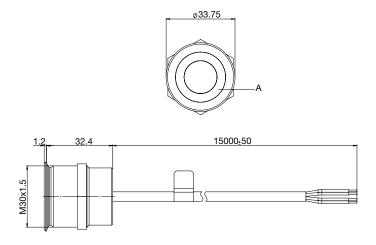
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration of conformity	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.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	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]

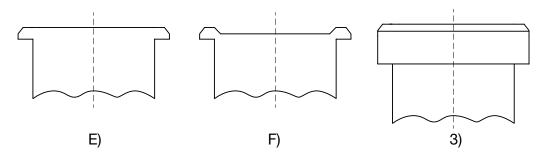
PSE M22



PSE M30



#### Design actuating area



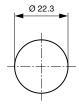
Legend:

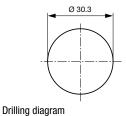
- A = Illumination Area
- B = Width Across Flats
- E) without finger guidance
- F) with finger guidance (on request)
- 3) elevated front design: M19 (standard and others on request)

#### **Dimension**

PSE 22 RGB

PSE M30 RGB

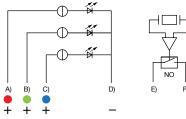




Drilling diagram

**Diagrams** 

## PSE with cable



A)Pink cable - red LED

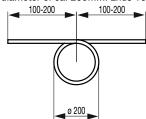
B)Green cable - green LED C)Yellow cable - blue LEDD) Cable 4 brown

E) Cable 5/6 white

F) Cable 5/6 grey

# **Cable specification**

Cable rolled up to a diameter of ca. 200mm. Ends 100-200mm loose.



Cable PUR black 6 x 0.25mm<sup>2</sup> Lenght: 15000mm +/- 50mm Wire  $\bar{}$  colors: white / grey / brown / pink / green / yellow End: 25mm dismanteled 4mm stripped and tin coated

## Illumination options for RGB

Lighting type	Active terminal A)	Active terminal B)	Active terminal C)	Resulting Color	
Multicolor Singlecolor	Α			Red 🛑	
Multicolor Singlecolor		В		Green 🛑	
Multicolor Singlecolor			С	Blue	
Multicolor RGB Additive 2	Α	В		Yellow —	
Multicolor RGB Additive 2	Α		С	Magenta 🛑	
Multicolor RGB Additive 2		В	С	Cyan 🔵	
Multicolor RGB Additive 3	Α	В	С	White 🔘	

#### **Variants**

Mounting Dia- meter [mm]	Terminal	Housing Material, Torsion Protection	Colour of Hou- sing	Actuator area	Illumination, LED	Config. Code	Order Number
22	PUR cable	Stainless Steel ,no	-	E	RI, RGB	PSE M 22 NO RI	3-105-290
30	PUR cable	Stainless Steel ,no	-	E	RI, RGB	PSE M 30 NO RI	3-102-521

Nut with gasket are enclosed in the box.

Other mounting diameters, materials, colors, connections, supply voltages possible available on request.

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

Legend:

Type: PSE

NO = normaly open

RI = Ring Illumination

ES = Stainless steel

F = Finger guidance

E = without finger guidance

## Packaging unit

1 in box with insert or packed in air cushion bags



- Actuating elements in ESD safe packaging
- Screw nuts and sealing O-ring in a bag (enclosed in the box)

**Switches**