Piezo Switch N.O.

PSE M22 with cable PUR   PSE M30 with cable PUR

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
- Waterproof ->from the front surface to the connection point
- Potted PUR cable for a tight installation
- High reliability, long lifetime with more than 20 mill. actuations
- With RGB ring illumination and variable voltage 5 - 28 VDC

Characteristics
- Housing material: stainless steel 1.4462, ring illumination made of poly-amide
- 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

References
Alternative: switch vandal improved: PSE HI 22
Alternative: switch for EX proved applications: PSE EX 16; PSE EX 19; PSE EX 22
Alternative: Other diameter   PSE NO 16; PSE NO 19; PSE NO 24; PSE NO 27; PSE NO 30
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 MΩ
Switch Resistance ON	< 20 Ω 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 color)	16.5 mA @ 5 VDC
	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	IK 02
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 Ring Illumination)	Stainless Steel 1.4462
Illuminated Ring (Ring Illumination)	Polyamide

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

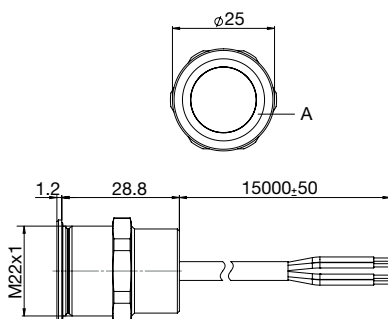| Organization	Design	Standard	Description
IEC	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

Compliances

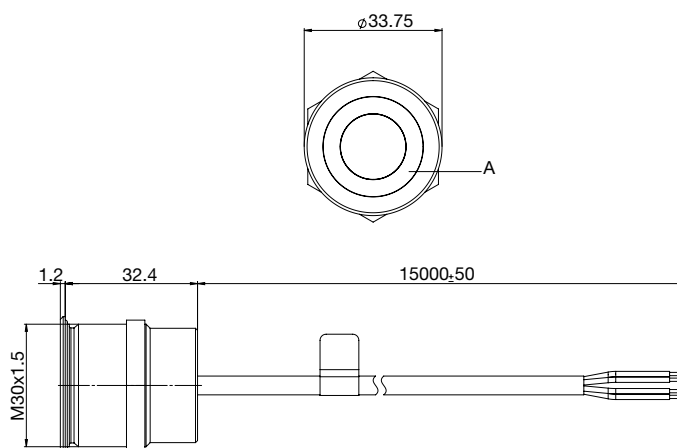The product complies with following Guide Lines

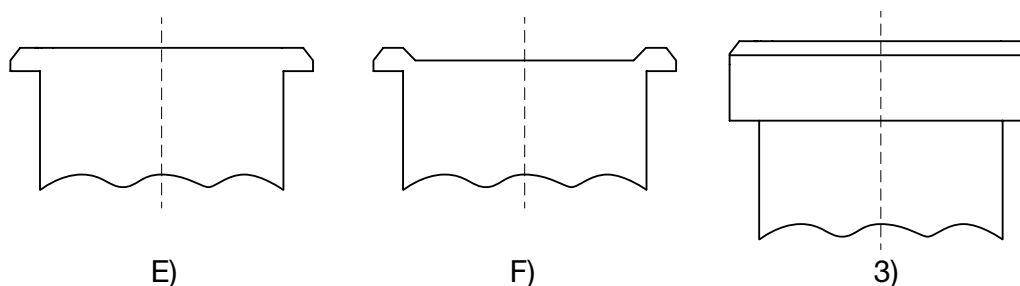| Identification	Details	Initiator	Description
RoHS COMPLIANT	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]
PSE M22 with 15m cable PUR
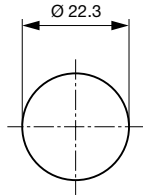

PSE M30 with cable PUR

Design actuating area

E)   F)   3)

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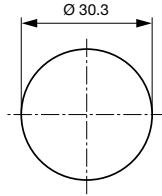3) elevated front design: M19 (standard and others on request)
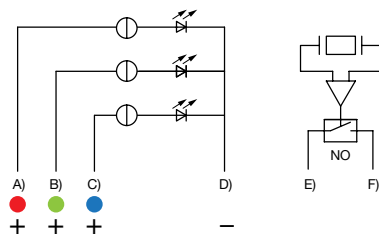
Dimension

PSE M22 RGB

Ø 22.3

Drilling diagram

PSE M30 RGB

Ø 30.3

Drilling diagram

Diagrams

PSE M22 / M30 RI RGB

A) B) C)   D)   E)   F)
+ + +   –
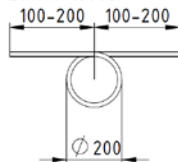
A) Cable 1 (color of the LED), Supply voltage
B) Cable 2 (color of the LED), Supply voltage
C) Cable 3 (color of the LED), Supply voltage
D) Cable 4 (black), Common mass
E) Cable 5/6 (white), Input and output PSE switch
F) Cable 5/6 (white), Input and output PSE switch

Illumination options for RGB

Lighting type	Active terminal A) 🔴	Active terminal B) 🟢	Active terminal C) 🔵	Resulting Color	
Multicolor Singlecolor	A			Red	🔴
Multicolor Singlecolor		B		Green	🟢
Multicolor Singlecolor			C	Blue	🔵
Multicolor RGB Additive 2	A	B		Yellow	🟡
Multicolor RGB Additive 2	A		C	Magenta	🟣
Multicolor RGB Additive 2		B	C	Cyan	🔵
Multicolor RGB Additive 3	A	B	C	White	⚪

Cable specification

cable rolled up to a diameter of ca.200mm.
ends 100–200mm loose.

100–200 | 100–200

Ø 200

Cable PUR black
6 x 0.25mm^2
Lenght: 1500mm +/- 50mm
Wire colors: white / grey / brown / pink / green / yellow
End: 25mm dismanteled
4mm stripped and tin coated

All Variants

Mounting Diameter [mm]	Terminal	Housing Material, Torsion Protection	Colour of Housing	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/Stock-Check/Stock-Check-SCHURTER

Mounting Diameter [mm]	Terminal	Housing Material, Torsion Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number

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)

28.09.2020