

Piezo Switch Prolonged Signal



Piezo Switch with prolonged impulse  
 Standard version  
 non-illuminated  
 PSE M22 IV



Multicolor  
 Blue ring illumination  
 PSE M22 RI RGB

See below:

[Approvals and Compliances](#)

**Description**

- Available in version Standard, lettered, with Point Illumination or Ring Illumination
- RGB, RGY: flexible input voltage from 5 - 28 VDC at constant brightness
- With color combination RGB and RGY
- 7 possible colors with RGB configuration
- 3 possible colors with RGY configuration Assembly by mounting with nut
- Pins, Wire, Crimp Terminal male or Cable with Faston

**Unique Selling Proposition**

- Variety of design options regarding size, colour, shape, connection or lettering
- High reliability, long lifetime with more than 20 mill. actuations
- Easy to clean due to a tightly closed surface (IP 69K)
- With RGB or RGY ring illumination

**Characteristics**

- Housing material types: aluminum or stainless steel, ring illuminated version additionally made of polyamide
- Piezo switch for a longer switching signal duration
- For use in harsh environments, both indoors and outdoors (see technical data)

**Other versions on request**

- Switch with short switching pulse, type: PSE NO
- Switch for explosion proof applications, type: PSE EX
- Switch with enhanced vandal proof protection, type: PSE HI

**References**

Alternative: Other diameter

Alternative: Other diameter [PSE IV 30](#)

Alternative: switch normal operation: [PSE with cable](#); [PSE NO 16](#); [PSE NO 19](#); [PSE NO 22](#); [PSE NO 24](#); [PSE NO 27](#); [PSE NO 30](#)

**Weblinks**

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

**Technical Data**

**Electrical Data**

Switching Function	momentary
Supply Voltage	12 / 24 VDC Ring Illumination 24 VDC Point Illumination
	5 VDC and 12 VDC variants on request (MOQ 500 pieces)
Supply Voltage RGB	5 - 28 VDC
Switching Voltage	max. 32 / 48 VAC/DC
Switching Current	max. 1 A
Electrical Rating	10 W
Lifetime	20 million actuations at Rated Switching Capacity
Switch Resistance OFF	> 10 MΩ
Switch Resistance ON	< 1 Ω
Capacity	30 pF
N.O. Closing Impulse Duration	min. 15 sec depending on actuating force, time and speed. Longer impulse time up to min. 50 sec available on request.
Contact Configuration	free polarity
<b>RGB Illumination</b>	
Current Consumption (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 centric actuation
Actuating Travel	0.002 mm
Shock Protection	IK 02
Mounting screw torque	2.5 Nm

**Climatical Data**

Operating Temperature	-20 to 60 °C
Storage Temperature	-20 to 60 °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, Aluminum anodized
Actuating Area / Insert (with Ring Illumination)	Stainless Steel, Aluminum anodized
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
	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.

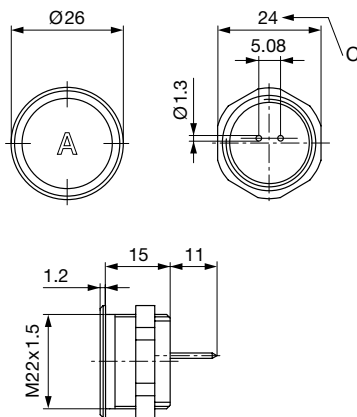
## Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	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.

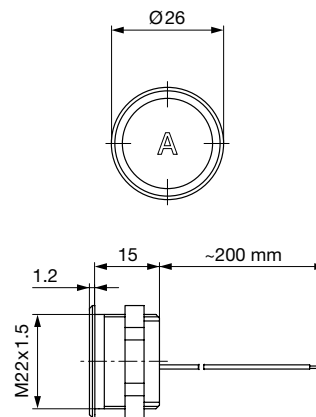
## Dimension [mm]

PSE M22 with Pins

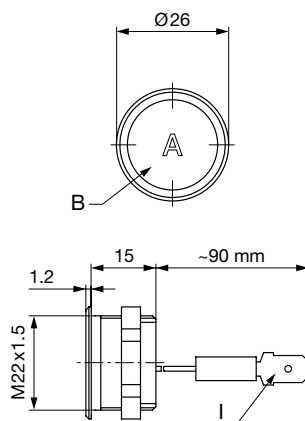


Version available on request

PSE M30 with cable PUR

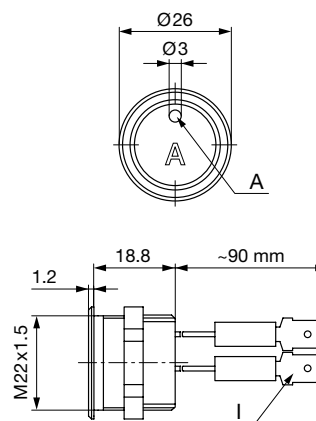


PSE M22 with Crimp Terminal male

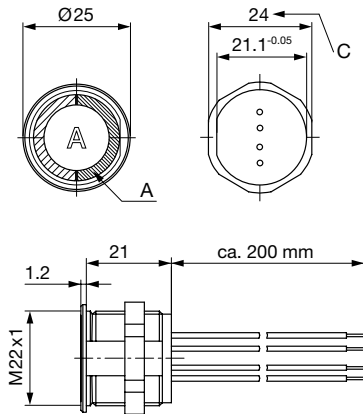


Version available on request

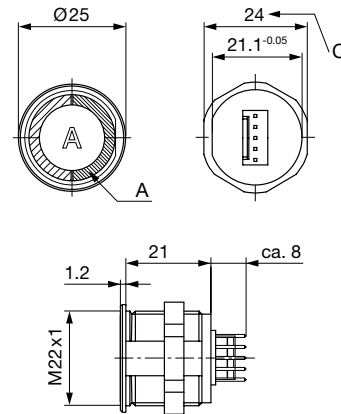
PSE M22 PI with Crimp Terminal male



PSE M22 RI with Wires

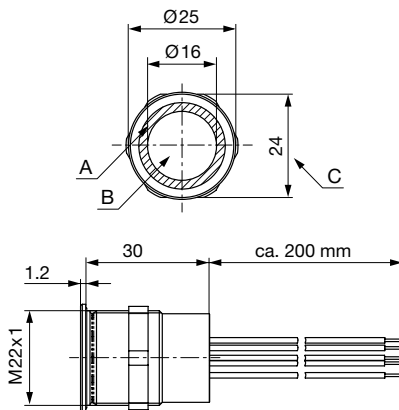


PSE M22 RI with Plug Connector

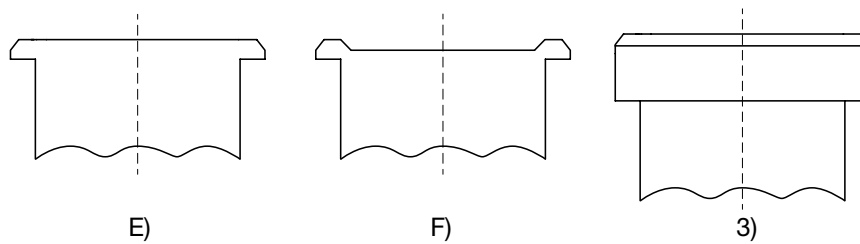


Version available on request

PSE M22 RI RGB with wires



Design actuating area



Legend:

- A = Illumination Area
- B = Actuating Area
- C = Width Across Flats
- I = Crimp Terminal male 6.3 x 0.8
- PI = Point Illumination
- RI = Ring Illumination

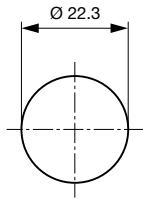
Lettering:

- either with/without lettering
- position of the connections with respect to the position of the lettering is not defined

- F) with finger guidance
- E) without finger guidance
- 3) elevated front design: M19 (standard, others on request)

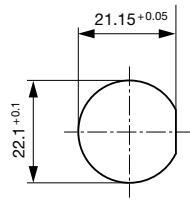
## Dimension

PSE M22 RGB



Drilling diagram

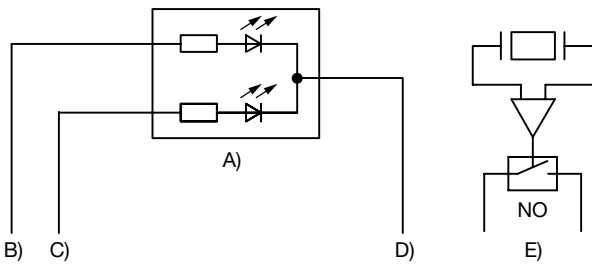
PSE M22 RI (excl. RGB)



Drilling diagram

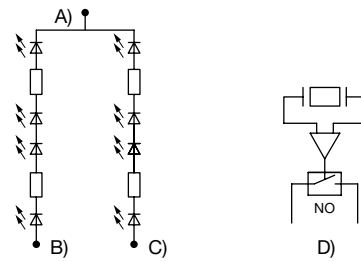
## Diagrams

PSE PI



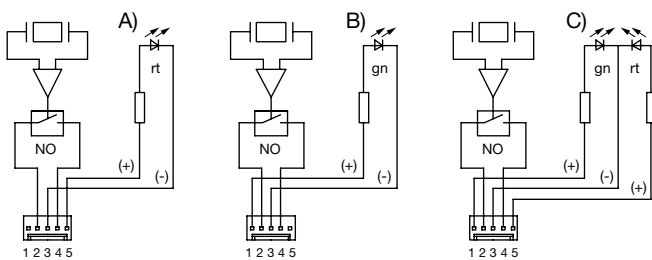
- A) Double-LED (2 colors, 3 pins) or simple LED (2 pins)
- B) Cable 1 (color 1 of the LED), Supply voltage
- C) Cable 2 (color 2 of the LED), Supply voltage
- D) Cable 3 (black), Mass
- E) Cable 4 and 5 (white), input and output PSE switch

PSE M22 RI with Wires, 12/24 V



- A) Cable 5 (black), Common mass of both LED groups
- B) Cable 1 (color of the LEDs), Supply voltage first LED group
- C) Cable 2 (color of the LEDs), Supply voltage second LED group
- D) Cable 3 and 4 (white), Input and output PSE switch

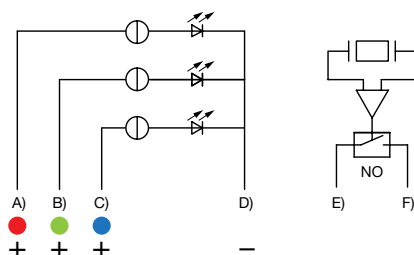
PSE M22 RI with Quick Connect Terminal, 12/24 V



- A) Illuminated red
- B) Illuminated green
- C) Illuminated red/green

Lighting type	Active terminal A) <span style="color: red;">●</span>	Active terminal B) <span style="color: green;">●</span>	Active terminal C) <span style="color: yellow;">●</span>	Resulting Color
Multicolor Singlecolor	A			Red <span style="color: red;">●</span>
Multicolor Singlecolor		B		Green <span style="color: green;">●</span>
Multicolor Singlecolor			C	Yellow <span style="color: yellow;">●</span>

PSE M22 / M30 RI RGB



- 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

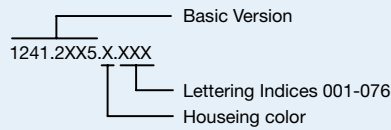
Lighting type	Active terminal A) <span style="color: red;">●</span>	Active terminal B) <span style="color: green;">●</span>	Active terminal C) <span style="color: blue;">●</span>	Resulting Color
Multicolor Singlecolor	A			Red <span style="color: red;">●</span>
Multicolor Singlecolor		B		Green <span style="color: green;">●</span>
Multicolor Singlecolor			C	Blue <span style="color: blue;">●</span>
Multicolor RGB Additive 2	A	B		Yellow <span style="color: yellow;">●</span>
Multicolor RGB Additive 2	A		C	Magenta <span style="color: magenta;">●</span>
Multicolor RGB Additive 2		B	C	Cyan <span style="color: cyan;">●</span>
Multicolor RGB Additive 3	A	B	C	White <span style="color: white;">○</span>

### Lettering

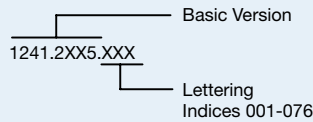
The last three digits in the order number define the lettering:

001-076	Standard Lettering
101-	Customized Lettering

#### Lettering - Aluminium / Plastic Material



#### Lettering - Stainless Steel



### Lettering Colour of Laser Lettering

Material	Lettering Colour	
Stainless Steel	black	Filled letters
Aluminum natural anodized	light grey	Filled letters (only after customer approval)
Aluminum coloured anodized	light grey	Filled letters

### Order Index Lettering

Laser Marking			
001 =A	021 =U	041 =÷	061 =EIN
002 =B	022 =V	042 =*	062 =AUS
003 =C	023 =W	043 ==	063 =AUF
004 =D	024 =X	044 =#	064 =AB
005 =E	025 =Y	045 =↔	065 =ON
006 =F	026 =Z	046 =‡	066 =OFF
007 =G	027 =0	047 =→	067 =UP
008 =H	028 =1	048 =←	068 =DOWN
009 =I	029 =2	049 =↓	069 =HIGH
010 =J	030 =3	050 =↑	070 =LOW
011 =K	031 =4	051 =%	071 =ON/OFF
012 =L	032 =5	052 =√	072 =START
013 =M	033 =6	053 =CTRL	073 =RESET
014 =N	034 =7	054 =RETURN	074 =⏻
015 =O	035 =8	055 =SHIFT	075 =⚙️
016 =P	036 =9	056 =LOCK	076 =🔒
017 =Q	037 =+	057 =STOP	077 =Ⓜ️
018 =R	038 =-	058 =ENTER	
019 =S	039 =.	059 =BACK	
020 =T	040 =x	060 =LINE	

### All Variants

Mounting Diameter	Terminal	Housing Material, Torsion Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
22	Flexible wire	Aluminum ,no	Alu natural	F	non-illuminated	PSE M 22 IV	<a href="#">1241.3998</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	RI dotted, green, 24 VDC	PSE M 22 IV RI	<a href="#">1241.3334</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	RI dotted, red / green, 24 VDC	PSE M 22 IV RI	<a href="#">1241.3335</a>
22	Flexible wire	Stainless Steel ,no	ES natural	E	RI homogeneous, RGB, 5 - 28 VDC	PSE M 22 IV RI	<a href="#">3-100-525</a>

Nut with gasket are enclosed in the box.

Mounting Diameter	Terminal	Housing Material, Torsion Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
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Other mounting diameters, materials, colors, connections, supply voltages possible available on request.  
 Special materials e.g. Marine grade stainless steel for use in salt and chlorinated environment on request.

The MOQ for standard laser lettering on standard variants is a packing unit.

5 VDC and 12 VDC RI variants on request (MOQ 500 pieces)

Availability for all products can be searched real-time: <https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>

Legend:

Type: PSE

NO = normally open

IV = prolonged signal

RU = PI = Point Illumination

RI = Ring Illumination

LE = Lettered

K = Plastics

Alu = Aluminium

ES = Stainless steel

F = Finger guidance

E = without finger guidance

**Packaging unit** 10 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)

## Accessories

### Description



Connecting Terminal PSE  
Connecting Terminal



Power Supply  
Power Supply IP42 for LED- and Illumination applications indoor 90~264 VAC => 24 VDC 0.34 A 8 W