

Piezo Switch Prolonged Signal



PSE M22 IV

PSE M22 RI Multicolor

Approvals and Compliances

Description

- Available in version Standard and lettered, from diameter 22 mm with Point Illumination or Ring Illumination
- Multicolor: 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 multicolor 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)
- IEC/UL 60950

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
- as keypad, type: Piezo Keypad

References

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

Alternative: Other diameter

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

Weblinks

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

Technical Data

Electrical Data

Switching Function	N.O.
Supply Voltage	Ring Illumination VDC 12 / 24 24 VDC Point Illumination
Supply Voltage Multicolor	5 - 28 VDC
Switching Voltage	max. 32 / 48 VAC/DC
Switching Current	max. 1 A
Rated Breaking Capacity	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	15 sec depending on actuating force, time and speed. Longer impulse time up to 50 sec available on request.
Contact Configuration	free polarity

Mechanical Data

Actuating Force	≤ 3 N at centric actuation
Actuating Travel	0.002 mm
Shock Protection	IK 02
Tightening Torque	2.5 Nm

Climatical Data

Operating Temperature	-20 to +60 °C
Storage Temperature	-20 to +60 °C
IP-Protection	IP 67 acc. to IEC 60529, IP 69K 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, Aluminium anodized, Polyamide
Actuating Area / Insert (with Ring Illumination)	Stainless Steel, Aluminium 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](#)

Approvals

Approval Reference Type:

Approval Logo	Certification Body	Description
	EU	EMC: EMC directive 2004/108/EWG
		DGUV Test Certificate: FW 11040 Requirements for Food Processing Equipment
		MIL-STD Certificate Number: 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 Certificate Number: DIN EN 61000-4-2, DIN EN 61000-4-4, DIN EN 61000-4-5

Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

Compliances

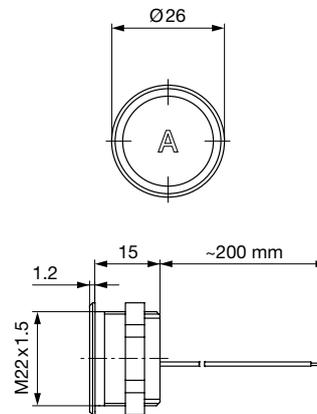
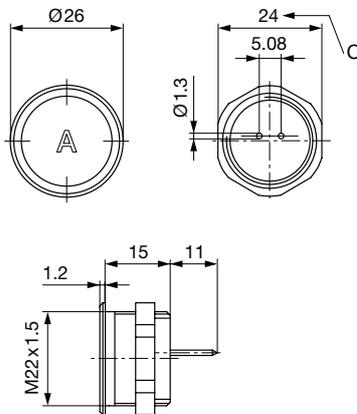
The product complies with following Guide Lines

Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	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]

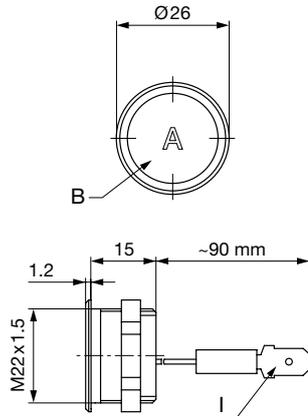
PSE M22 with Pins

PSE M22 with Wire



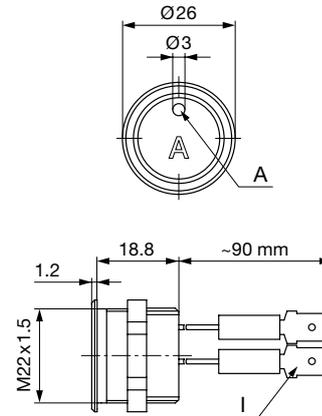
Version available on request

PSE M22 with Crimp Terminal male

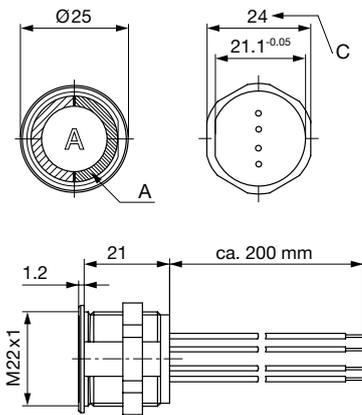


Version available on request

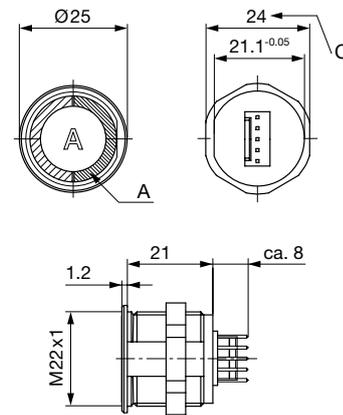
PSE M22 PI with Crimp Terminal male



PSE M22 RI with Wires

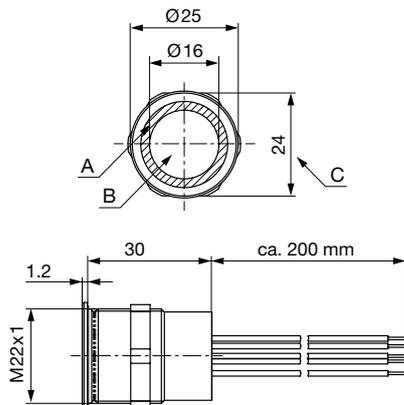


PSE M22 RI with Plug Connector

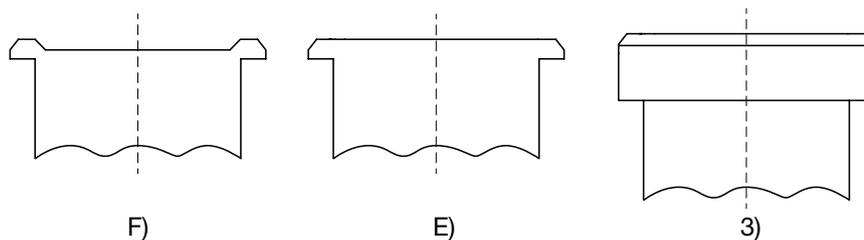


Version available on request

PSE M22 RI Multicolor 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

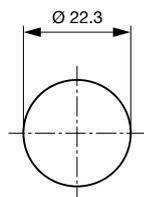
E) without finger guidance

3) elevated front design: M19 (standard, others on request)

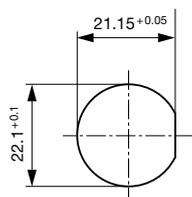
Dimension

PSE M22 (incl. multicolor)

PSE M22 RI (excl. multicolor)



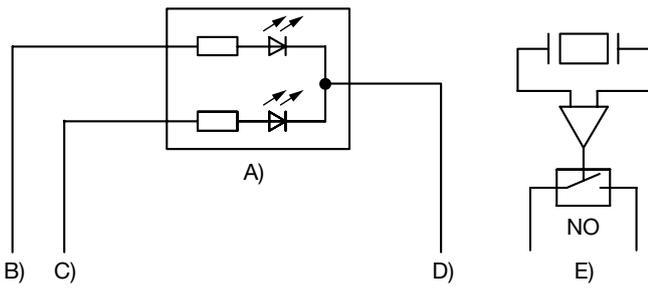
Drilling diagram



Drilling diagram

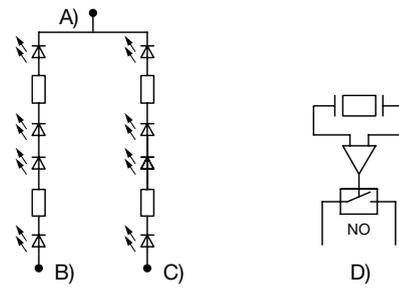
Diagrams

PSE PI



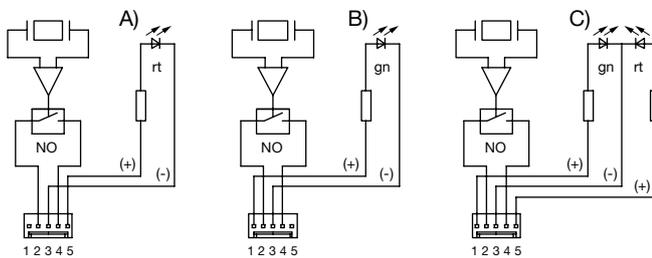
- A) Double-LED (2 colors, 3 pins) or simple LED (2 pins)
- B) Cable 1 (color 1 of the LED), Supply voltage
- C) Cable 2 (color 2 of the LED), Supply voltage
- D) Cable 3 (black), Mass
- E) Cable 4 and 5 (white), input and output PSE switch

PSE M22 RI with Wires, 12/24 V

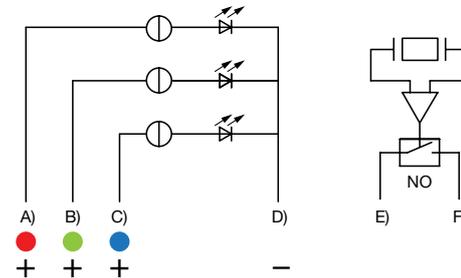


- A) Cable 5 (black), Common mass of both LED groups
- B) Cable 1 (color of the LEDs), Supply voltage first LED group
- C) Cable 2 (color of the LEDs), Supply voltage second LED group
- D) Cable 3 and 4 (white), Input and output PSE switch

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



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



PSE M22 / M24 / M27 / M30 RI Multicolor

- 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

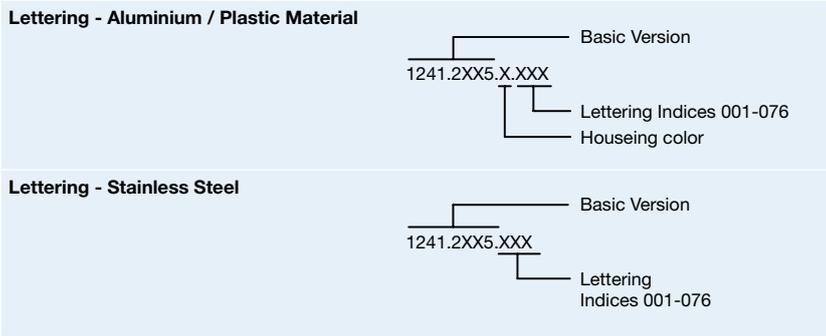
Multicolor lighting options

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

Lettering

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

001-076	Standard Lettering
101-	Customized Lettering



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	1241.3998
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 12 VDC	PSE M 22 IV RI	1241.3331
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 12 VDC	PSE M 22 IV RI	1241.3332
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 12 VDC	PSE M 22 IV RI	1241.3330

Mounting Diameter	Terminal	Housing Material, Torsion Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 24 VDC	PSE M 22 IV RI	1241.3334
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 24 VDC	PSE M 22 IV RI	1241.3335
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 24 VDC	PSE M 22 IV RI	1241.3333

Nut with gasket are enclosed in the box.

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.

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

Legend:

Type: PSE

NO = normaly 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 rings in a bag (enclosed in the box)

Accessories

Description



Connecting Terminal PSE
Connecting Terminal