

Piezo Switch N.O.



PSE M22 RI



PSE M22 PI



PSE M22 PI blue



**Description**

- Available in version Standard and lettered, from diameter 22 mm with Point Illumination or Ring Illumination
- Assembly by mounting with nut
- Pins, Wire, Crimp Terminal male or Cable with Faston

**Approvals**

- 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

**Characteristics**

- Housing material types: plastic, aluminum or stainless steel, ring illuminated version additionally made of polyamide
- Variety of design options regarding size, colour, shape, connection or lettering
- High reliability, long lifetime with more than 20 mill. actuations
- For use in harsh environments, both indoors and outdoors

**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
- as keypad, type: Piezo Keypad

**References**

- Alternative: switch with prolonged signal: [PSE IV 22](#)
- Alternative: switch vandal improved: [PSE HI 22](#)
- Alternative: switch for EX proved applications: [PSE EX 22](#)

**Weblinks**

[html-datasheet](#), [General Product Information](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#)

**Technical Data**

**Electrical Data**

Switching Function	N.O.
Supply Voltage	12 / 24 VDC Ring Illumination, 24 VDC Point Illumination,
Switching Voltage	max. 42 / 60 VAC/DC
Switching Current	max. 100 mA
Rated Breaking Capacity	1 W
Lifetime	20 million 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

**Mechanical Data**

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

**Climatical Data**

Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +85 °C
IP-Protection	IP 67 Front Side submerged (1m water column), IP 69K Front side High Pressure cleaner test, front side / rear side DIN EN 60068-2-30 Db (Moist heat - air test with 55°C / 93% humidity)

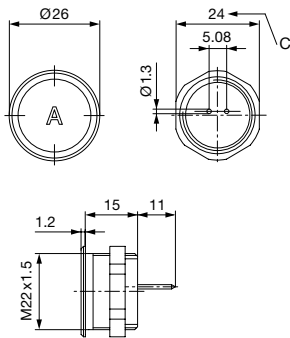
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time
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**Material**

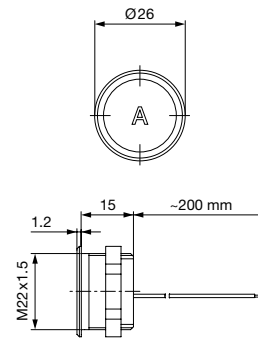
Housing (depending on type)	Stainless Steel, Aluminium anodized, Polyamide
Actuating Area / Insert (with Ring Illumination)	Stainless Steel, Aluminium anodized
Illuminated Ring (Ring Illumination)	Polyamide

**Dimension**

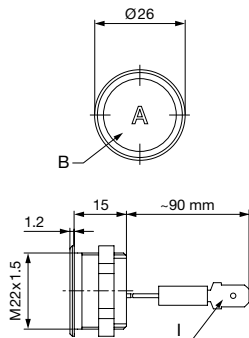
PSE M22 with Pins



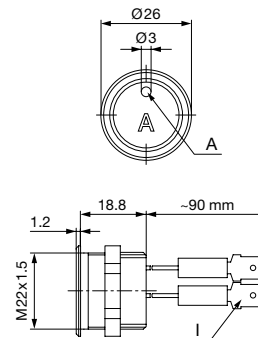
PSE M22 with Wire



PSE M22 with Crimp Terminal male

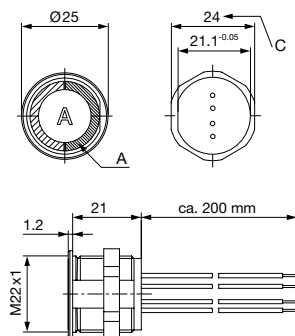


PSE M22 PI with Crimp Terminal male

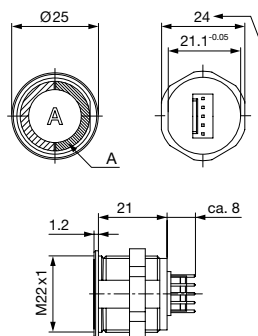


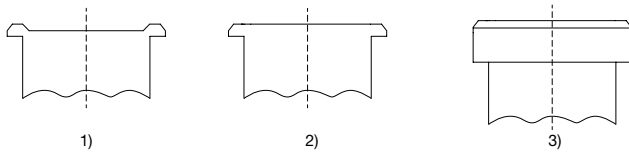
Version available on request

PSE M22 RI with Wires



PSE M22 RI with Plug Connector





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

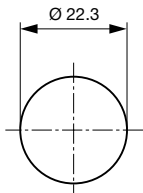
Lettering:

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

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

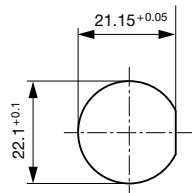
**Dimension**

PSE M22



Drilling diagram

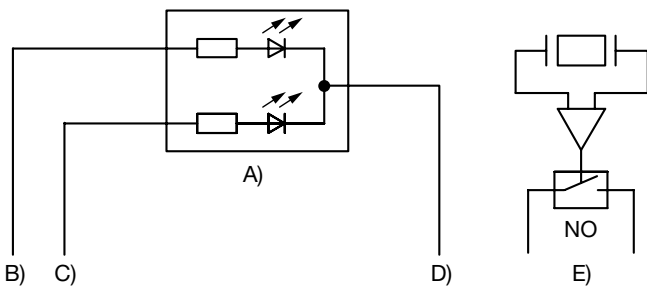
PSE M22 RI



Drilling diagram

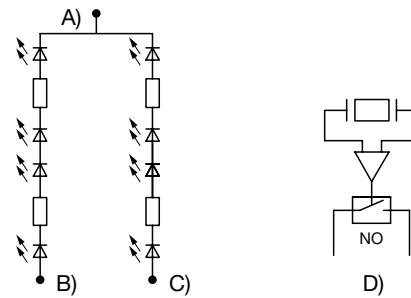
Diagrams

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

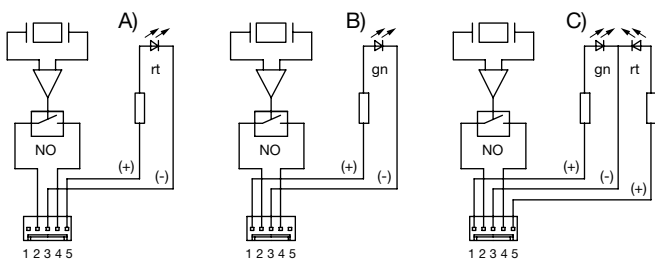
PSE M22 RI with Wires, 12/24 V



- 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

PI = point illumination  
RI = ring illumination



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

Lettering

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




001-076	Standard Lettering
101-	Customized Lettering

<p><b>Lettering - Aluminium / Plastic Material</b></p> <p>1241.2XX5.X.XXX</p> <ul style="list-style-type: none"> <li>Basic Version</li> <li>Lettering Indices 001-076</li> <li>Housing color (Alu/Plastics)</li> </ul>
<p><b>Lettering - Stainless Steel</b></p> <p>1241.2XX5.XXX</p> <ul style="list-style-type: none"> <li>Basic Version</li> <li>Lettering Indices 001-076</li> </ul>

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

## 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	E	non-illuminated	PSE M 22 NO	<a href="#">1241.3593</a>
22	Flexible wire	Stainless Steel ,no	-	F	non-illuminated	PSE M 22 NO	<a href="#">1241.3004</a>
22	Flexible wire	Stainless Steel ,yes	-	E	Point Illumination, green, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3594.M</a>
22	Flexible wire	Aluminum ,yes	Alu natural	F	Ring Illumination, blue, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3390</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3251</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3252</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3250</a>
22	Flexible wire	Aluminum ,yes	Alu natural	F	Ring Illumination, blue, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3413</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 24	PSE M 22 NO RI	<a href="#">1241.3257</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3258</a>
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3256</a>
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3254</a>
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 12 VDC	PSE M 22 NO RI	<a href="#">1241.3253</a>
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3260</a>
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3261</a>
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 24 VDC	PSE M 22 NO RI	<a href="#">1241.3259</a>
22	Quick Connect Terminal	Aluminum ,yes	Alu natural	F	Point Illumination, blue, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3244.M</a>
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, green, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3089.M</a>
22	Quick Connect Terminal	Aluminum ,no	green	F	Point Illumination, green, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3167.M</a>
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, red, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3020.M</a>
22	Quick Connect Terminal	Aluminum ,no	red	F	Point Illumination, red, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3166.M</a>
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, yellow, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3047.M</a>
22	Quick Connect Terminal	Aluminum ,yes	gold	F	Point Illumination, yellow, 24 VDC	PSE M 22 NO PI	<a href="#">1241.3222.M</a>

Mounting Diameter	Terminal	Housing Material, Torsion Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
22	Molex connection	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 12 VDC	PSE M 22 NO RI	1241.3255
22	Pins	Aluminum ,no	red	F	non-illuminated	PSE M 22 NO	1241.3005
22	Pins	Aluminum ,no	green	F	non-illuminated	PSE M 22 NO	1241.3006
22	Pins	Aluminum ,no	black	F	non-illuminated	PSE M 22 NO	1241.3007
22	Pins	Aluminum ,no	Alu natural	F	non-illuminated	PSE M 22 NO	1241.3008
22	Pins	Stainless Steel ,no	-	F	non-illuminated	PSE M 22 NO	1241.3075

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

Plastic nut with gasket are enclosed in the box.

Other mounting diameters, materials, colors, connections, supply voltages possible available on request.  
 Special materials for use in salt and chlorinated environment on request.

Most Popular.

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

**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