

## Piezo Switch with Extended Protection against Vandalism



PSE M22 HI Braille



PSE M22 HI VS



PSE M22 HI

See below:

### Approvals and Compliances

#### Description

- Momentary switch available in version Standard or with Lettering/Symbols
- Assembly by mounting with nut
- Quick connect terminals or wires

#### Characteristics

- Housing and actuating area material: high-quality stainless steel, optional aluminium anodized in various colours
- Laser lettering, Braille, standard or customized characters and symbols
- High reliability, long lifetime with more than 20 mill. actuations
- piezo switch with enhanced vandal proof protection to IK 06 impact resistance rating
- For use in harsh environments, both indoors and outdoors (see technical data)

#### References

Alternative: Standard version

#### 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                                                |
| 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                                                   |
| Capacity                      | 30 pF                                                    |
| N.O. Closing Impulse Duration | 20- 1000 ms depending on actuating force, time and speed |
| Contact Configuration         | free polarity                                            |

##### Mechanical Data

|                       |                                |
|-----------------------|--------------------------------|
| Actuating Force       | 2 - 5 N at ambient temperature |
| Actuating Travel      | 0.002 mm                       |
| Shock Protection      | IK 06                          |
| 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

|                |                                                           |
|----------------|-----------------------------------------------------------|
| Housings       | Stainless Steel                                           |
| Actuating Area | Stainless Steel, Aluminium anodized for Braille lettering |

#### 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. |

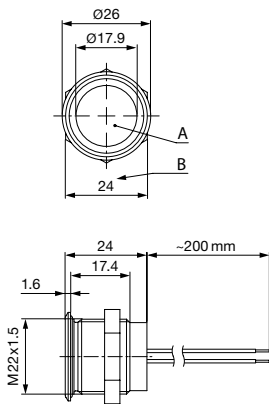
Compliances

The product complies with following Guide Lines

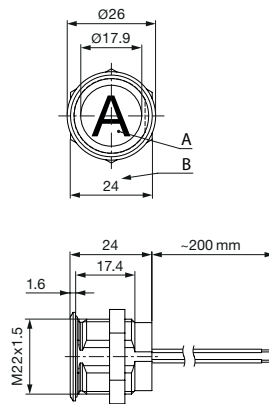
| Identification                                                                   | Details | Initiator   | Description                                                                                                                                                             |
|----------------------------------------------------------------------------------|---------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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]

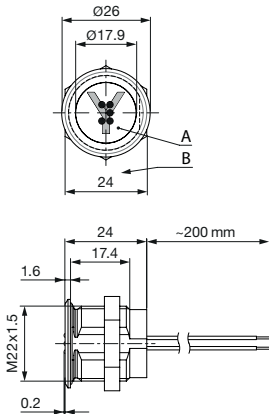
PSE M22 HI Standard with wire leads (without anti-rotation)



PSE M22 HI Laser marking with wire leads (with anti-rotation)



PSE M22 HI Braille marking with wire leads (with anti-rotation)

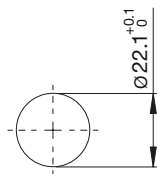


With Braille and Laser marking

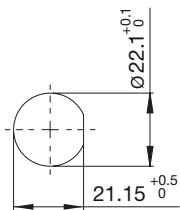
- Legend:
- A = Actuating area
  - B = Width across flats
  - Wire (Standard: 0.14 mm<sup>2</sup> / 200 mm wire-length)
- Lettering:
- Either with/without lettering
  - Position of the connections with respect to the position of the lettering is not defined

## Dimension

PSE M22 without anti-rotation



PSE M22 with anti-rotation



## Lettering Colour of Laser Lettering

| Material        | Lettering Colour |                |
|-----------------|------------------|----------------|
| Stainless Steel | black            | Filled letters |
| Aluminium       | white            | Filled letters |

## Ordering Example for Lettering

### Laser marking

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

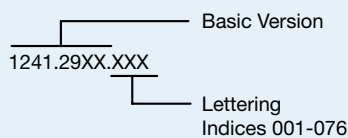
001-076

Standard Lettering

101-

Customized Lettering

### Example for ordering with laser marking:



### Braille lettering

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

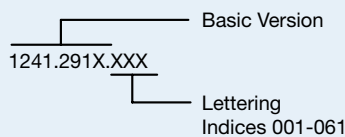
001-061

Standard Lettering

101-

Customized Lettering

### Example for ordering with Braille lettering



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   |                                                                                         |

## Order Index Lettering

| Braille Marking |  |                     |  |
|-----------------|--|---------------------|--|
| 001 =A=         |  | 017 =Q=             |  |
| 002 =B=         |  | 018 =R=             |  |
| 003 =C=         |  | 019 =S=             |  |
| 004 =D=         |  | 020 =T=             |  |
| 005 =E=         |  | 021 =U=             |  |
| 006 =F=         |  | 022 =V=             |  |
| 007 =G=         |  | 023 =W=             |  |
| 008 =H=         |  | 024 =X=             |  |
| 009 =I=         |  | 025 =Y=             |  |
| 010 =J=         |  | 026 =Z=             |  |
| 011 =K=         |  | 027 =0=             |  |
| 012 =L=         |  | 028 =1=             |  |
| 013 =M=         |  | 029 =2=             |  |
| 014 =N=         |  | 030 =3=             |  |
| 015 =O=         |  | 031 =4=             |  |
| 016 =P=         |  | 032 =5=             |  |
|                 |  | 033 =6=             |  |
|                 |  | 034 =7=             |  |
|                 |  | 035 =8=             |  |
|                 |  | 036 =9=             |  |
|                 |  | 037 =ß=             |  |
|                 |  | 038 =ST=            |  |
|                 |  | 039 =CH=            |  |
|                 |  | 040 =SCH=           |  |
|                 |  | 041 =EI=            |  |
|                 |  | 042 =IE=            |  |
|                 |  | 043 =Ä=             |  |
|                 |  | 044 =Ö=             |  |
|                 |  | 045 =Ü=             |  |
|                 |  | 046 =AU=            |  |
|                 |  | 047 =EU=            |  |
|                 |  | 048 =ÄU=            |  |
|                 |  | 049 =Zahlenzeichen= |  |
|                 |  | 050 =,=             |  |
|                 |  | 051 =:=             |  |
|                 |  | 052 =,=             |  |
|                 |  | 053 =;=             |  |
|                 |  | 054 =?=             |  |
|                 |  | 055 =!=             |  |
|                 |  | 056 =-=             |  |
|                 |  | 057 ='=             |  |
|                 |  | 057 =0=             |  |
|                 |  | 059 =,,=            |  |
|                 |  | 060 ='='=           |  |
|                 |  | 061 =*=             |  |

All Variants

| Mounting Diameter [mm] | Terminal      | Housing Material, Torsion Protection | Actuator area   | Lettering     | Config. Code    | Order Number                  |
|------------------------|---------------|--------------------------------------|-----------------|---------------|-----------------|-------------------------------|
| 22                     | Flexible wire | Alu green ,yes                       | Alu green       | no            | PSE M 22 HI VS  | <a href="#">1241.2918</a>     |
| 22                     | Flexible wire | Alu green ,yes                       | Alu green       | laser printed | PSE M 22 HI VS  | <a href="#">1241.2924.074</a> |
| 22                     | Flexible wire | Stainless Steel ,no                  | Stainless Steel | no            | PSE M 22 HI Pcs | <a href="#">1241.3993</a>     |

Legend:  
Type:  
HI = High Impact  
VS = anti rotation protection for lettering  
Nut with gasket are enclosed in the box.

The listed item numbers represent a selection of the range of piezo switches. Other mounting diameters, materials, colors, connections and symbols are available on request.  
Special materials for use in salt and chlorinated environment on request.  
The MOQ for standard laser lettering on standard variants is a packing unit.

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

**Packaging unit**      10 in box with insert



- 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