### 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 / 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	IK06
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	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
$\odot$	Designed for applications acc.	MIL-STD:	416D Method RS103
VDE	Designed for applications acc.	VDE Certificate Number:	DIN EN 61000-4-2, DIN EN 61000-4-4
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

### **Compliances**

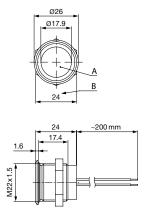
The product complies with following Guide Lines

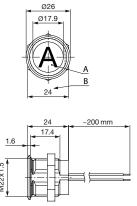
The product complies w	The product complies with following dulac Lines					
Identification	Details	Initiator	Description			
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863			
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation,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

### Dimension [mm]

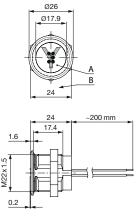
PSE M22 HI Standard with wire leads (without anti-rotation)

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)

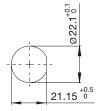
- Either with/without lettering
- Position of the connections with respect to the position of the lettering is not defined

### **Dimension**

PSE M22 without anti-rotation

PSE M22 with anti-rotation





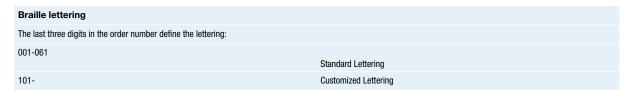
### **Lettering Colour of Laser Lettering**

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

### **Ordering Example for Lettering**









### **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 = <b>=</b>	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 = CTRL	073 = <b>RESET</b>	
014 = <b>N</b>	034 = 7	054 = <b>RETURN</b>	074 = (1)	
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 =+	057 = <b>STOP</b>	077 =	
018 = <b>R</b>	038 =-	058 = <b>ENTER</b>		
019 = <b>S</b>	039 =.	059 = <b>BACK</b>		
020 = <b>T</b>	040 = x	060 = <b>LINE</b>		
Please note that the font size depends on the number of characters				

### Order Index Lettering

Order Index I	_ettering						
Braille Marking							
001 = <b>A</b> =	● O O O	017 = <b>Q</b> =		033 = <b>6</b> =		049 = <b>Zahlenzei-</b> <b>chen</b> =	○ <b>•</b> ○ <b>•</b>
002 = <b>B</b> =	● O ● O ○ O	018 = <b>R</b> =		034 = <b>7</b> =		050 =.=	00 00 ●0
003 = <b>C</b> =	• • 00 00	019 = <b>S</b> =	<ul><li>○ ●</li><li>○ ○</li><li>○ ○</li></ul>	035 = <b>8</b> =		051 =:=	○ ○ ● ● ○ ○
004 = <b>D</b> =		020 = <b>T</b> =		036 = <b>9</b> =		052 =,=	○ ○ ● ○ ○ ○
005 = <b>E</b> =		021 = <b>U</b> =		037 = <b>ß</b> =	<ul><li>○ •</li><li>• ○</li><li>• •</li></ul>	053 =;=	○ ○ ● ○ ● ○
006 = <b>F</b> =	• • • • • • • • • • • • • • • • • • •	022 = <b>V</b> =	• O • O	038 = <b>ST</b> =	○ <b>•</b> • • • • • • • • • • • • • • • • • •	054 =?=	○ ○ ● ○ ○ ●
007 = <b>G</b> =		023 = <b>W</b> =	<ul><li>○ ●</li><li>○ ●</li><li>○ ●</li></ul>	039 = <b>CH</b> =	• • • • • • • • • • • • • • • • • • •	055 =!=	<ul><li>○ ○</li><li>● ●</li><li>○ ○</li></ul>
008 = <b>H</b> =		024 = <b>X</b> =		040 = <b>SCH</b> =	● ○ ○ ● ○ ●	056 =-=	○ ○ ○ ○ ● ●
009 = <b>I</b> =	<ul><li>○ ●</li><li>○ ○</li><li>○ ○</li></ul>	025 = <b>Y</b> =	• • • • • • • • • • • • • • • • • • •	041 = <b>EI</b> =		057 ='=	00 00 0 ●
010 = <b>J</b> =	<ul><li>○ ●</li><li>○ ○</li></ul>	026 = <b>Z</b> =	• O • • •	042 = <b>IE</b> =	<ul><li>○ ●</li><li>○ ○</li><li>○ ●</li></ul>	057 = <b>()</b> =	○ ○ • • • •
011 = <b>K</b> =	● ○ ○ ○ ● ○	027 = <b>0</b> =		043 = <b>Ä</b> =	<ul><li>○ ●</li><li>○ ●</li><li>○ ○</li></ul>	059 =,,=	○ ○ ● ○ ● ●
012 = <b>L</b> =	● ○ ● ○ ● ○	028 = <b>1</b> =		044 = <b>Ö</b> =	<ul><li>○ ●</li><li>○ ○</li><li>○ ●</li></ul>	060 =''=	○ ○ ○ ●
013 = <b>M</b> =	• • • • • •	029 = <b>2</b> =		045 = <b>Ü</b> =		061 =*=	○ ○ ○ ● ● ○
014 = <b>N</b> =	• • • • • • • • • • • • • • • • • • •	030 = <b>3</b> =		046 = <b>AU</b> =	● ○ ○ ○ ○ ●		
015 = <b>O</b> =	● ○ ○ ● ● ○	031 =4=		047 = <b>EU</b> =	● ○ ● ○ ○ ●		
016 = <b>P</b> =	• • • • • • • • • • • • • • • • • • •	032 = <b>5</b> =		048 = <b>ÄU</b> =	• O O O • O		

### **All Variants**

Mounting Diame- ter [mm]	Terminal	Housing Material, Torsion Protection	Actuator area	Marking	Config. Code	Order Number
22	Flexible wire	Alu green ,yes	Alu green	no	PSE M 22 HI VS	1241.2918
22	Flexible wire	Alu green ,yes	Alu green	laser printed	PSE M 22 HI VS	1241.2924.074
22	Flexible wire	Stainless Steel ,no	Stainless Steel	no	PSE M 22 HI Pcs	1241.3993

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 O-ring in a bag (enclosed in the box)

#### Accessories

#### Description



Connecting Terminal PSE Connecting Terminal

**Switches** 

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67021K512 67081K512X 701PB580 7199K101 810K12910 810KSV30B MML21EA2ADK MML21KA3ABK MML23KA3AC05K-001
MML23KW3AA01W 8418K2 8442K2 8442K3 8450K1 860K11911T01A 861901 861K11911T01A07 861K13810T00A14 861K13911
8646AB6X718UL 8646ABUL 9001KXRK 907AYY100 PMHD155A1 9533CD4+U574+U4922 95-414.000 99-450.837 99-453.837
PV3H2B0NN-341 1203MRA A22NZBGANGA A22NZBNANGA A22NZMPATRA A2PMA1X03EC56 A3A-5123-02 A3A-7140 A3A-7310 A3A-7340 A3U-TMW-A2C-5M A595 12037A2ULCSA ABD122N-B