

Piezo Switch N.O.



PSE M19

See below:

[Approvals and Compliances](#)

Description

- Available in version Standard and lettered
- 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

Characteristics

- Housing material: aluminum or stainless steel
- For use in harsh environments, both indoors and outdoors (see technical data)

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

References

- Alternative: switch vandal improved: [PSE HI 22](#)
- Alternative: switch for EX proved applications: [PSE EX 16](#); [PSE EX 19](#); [PSE EX 22](#)
- Alternative: Other diameter
- Alternative: Other diameter [PSE NO 22](#)
- Alternative: switch with prolonged signal: [PSE AE 16](#); [PSE AE 30](#)

Weblinks

- [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 | < 20Ω 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 |

RGB Illumination

Current Consumption (max per color) -

Mechanical Data

| | |
|-----------------------|------------------------------|
| Actuating Force | ≤ 3 N at ambient temperature |
| Actuating Travel | 0.002 mm |
| Shock Protection | IK 02 |
| Mounting screw torque | 2.5 Nm |

Climatical Data

| | |
|-----------------------|---|
| Operating Temperature | -40 to 85 °C |
| Storage Temperature | -40 to 85 °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.

Approvals

Approval Reference Type:

| Approval Logo | Certification Body | Description |
|--|--------------------|--|
|  | EU | EMC: EMC directive 2004/108/EWG |
|  | | DGVV 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. |

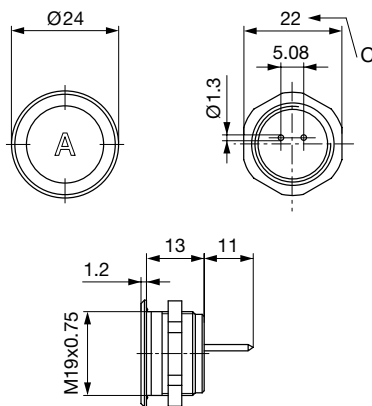
Compliances

The product complies with following Guide Lines

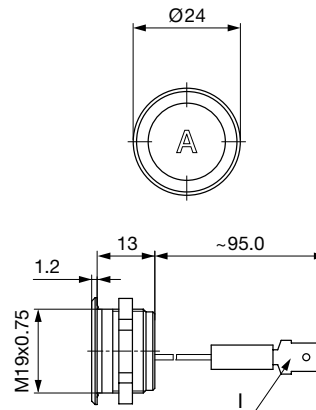
| Identification | Details | Initiator | Description |
|--|---------|-------------|---|
|  | RoHS | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/836 |
|  | REACH | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force. |

Dimension [mm]

PSE M19 with Pins

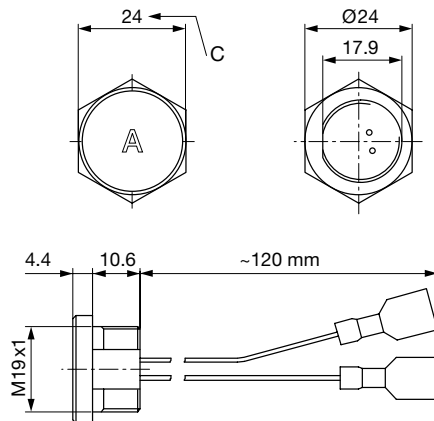


PSE M19 with Crimp Terminal male



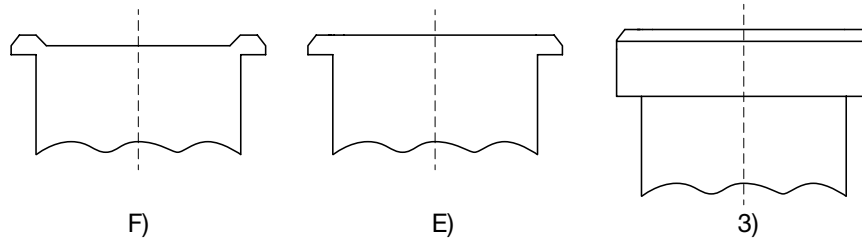
Version available on request

PSE M19 with Cable with Faston, elevated front design



Terminal: Crimp Terminal female Ultrafast red 6.3 x 0.8

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

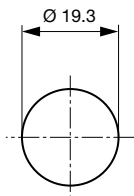
F) with finger guidance

E) without finger guidance

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

Dimension

PSE M19

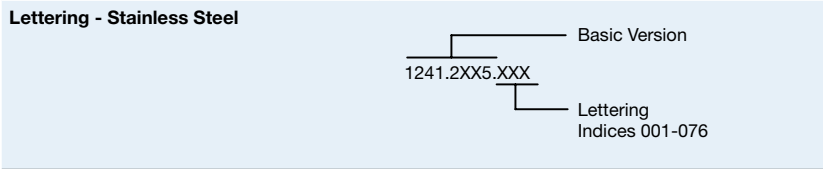
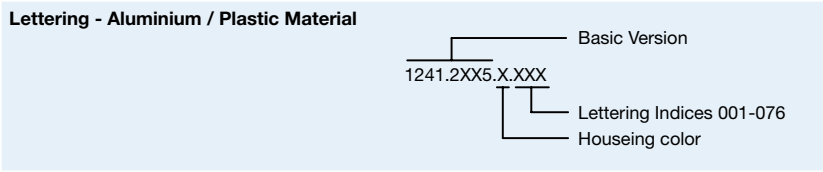


Drilling diagram

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 |
|-------------------|-------------------|--------------------------------------|-------------------|----------------|-------------------|--------------|---------------------------|
| 19 | Cable with Faston | Aluminum ,yes | Alu natural | Elevated Front | non-illuminated | PSE M 19 NO | 1241.5003 |
| 19 | Pins | Aluminum ,no | Alu natural | F | non-illuminated | PSE M 19 NO | 1241.3123 |
| 19 | Pins | Stainless Steel ,no | - | F | non-illuminated | PSE M 19 NO | 1241.3388 |

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 |
|-------------------|----------|--------------------------------------|-------------------|---------------|-------------------|--------------|--------------|
|-------------------|----------|--------------------------------------|-------------------|---------------|-------------------|--------------|--------------|

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 10 pieces.

Most Popular.

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 rings in a bag (enclosed in the box)

Accessories

Description



Connecting Terminal PSE
Connecting Terminal