Piezo Switch N.O.


See below
Approvals and Compliances

## Description

- Available in version Standard, lettered, with Point Illumination or Ring Illumination
- RGB, RGY: 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
- With RGB or RGY ring illumination


## Characteristics

- Housing material types: aluminum or stainless steel, ring illuminated version additionally made of polyamide
- 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 PSE NO 16; PSE NO 19; PSE NO
22; PSE NO 24
Alternative: Other diameter
Alternative: switch with prolonged signal: PSE AE 16; PSE AE 30
Weblinks
pdf data sheet, html datasheet, General Product Information, CADDrawings, Product News, Detailed request for product, Microsite

| Technical Data |  |
| :--- | :--- |
| Electrical Data | momentary |
| Switching Function | 24 VDC Ring Illumination 24 VDC Point <br> Illumination |
| 5 VDDC and 12 VDC variants on request <br> (MOQ 500 pieces) |  |
| Supply Voltage Voltage RGB | $5-28 \mathrm{VDC}$ |
| 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 | $>10 \mathrm{M} \mathrm{\Omega}$ |
| Switch Resistance ON | $<20 \Omega$ actuated (Ta = 25 ${ }^{\circ} \mathrm{C}$ ) |
| Capacity | 5 nF |
| N.O. Closing Impulse Duration | $20-1000 \mathrm{~ms} \mathrm{depending} \mathrm{on} \mathrm{actuating}$ |
| force, time and speed |  |


| Mechanical Data |  |
| :--- | :--- |
| Actuating Force | $\leq 3 \mathrm{~N}$ at ambient temperature |
| Actuating Travel | 0.002 mm |
| Shock Protection | IK 02 |
| Mounting screw torque | 2.5 Nm |
| Climatical Data |  |
| Operating Temperature | -40 to $85^{\circ} \mathrm{C}$ |
| Storage Temperature | -40 to $85^{\circ} \mathrm{C}$ |
| IP-Protection | $\mathrm{IP67}$ acc. to IEC 60529, IP69K acc. to |
|  | $\mathrm{DIN} \mathrm{40050-9}$ |
| Environmental Assessment | $+55^{\circ} \mathrm{C} / 93 \%$ r.h. acc. to DIN EN |
|  | $60068-2-30$ |
| Salt Spray Test (acc. to DIN | $24 \mathrm{~h} \mathrm{/} \mathrm{48} \mathrm{h} \mathrm{/} \mathrm{96} \mathrm{h} \mathrm{Residence} \mathrm{Time}$ |
| 50021-SS) |  |
| Material |  |
| Housing (depending on type) | Stainless Steel, Aluminum anodized |
| Actuating Area / Insert (with | Stainless Steel, Aluminum anodized |
| Ring Illumination) |  |
| llluminated Ring (Ring Illumi- | Polyamide |
| nation) |  |

## 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 |
| :--- | :--- | :--- | :--- |
| IEC | 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 | 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, |

## Dimension [mm]

## PSE M27 RI



Design actuating area

F)

E)

3)

Legend:
A = lllumination Area
$B=$ Actuating Area
C = Width Across Flats
I = Crimp Terminal male $6.3 \times 0.8$
$\mathrm{PI}=$ 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 M27


Drilling diagram

## Diagrams

## PSE M24 RI / PSE M27 RI / PSE M30 RI, 12/24 V


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

PSE M24 RI / PSE M27 RI / PSE M30 RI, 5 V

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

PSE M22 / M24 / M27 / M30 RI RGB


Illumination options for RGB

| Lighting type | Active <br> terminal <br> A) | Active <br> terminal <br> B) | Active <br> terminal <br> C) | Resulting <br> 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 | O |

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

## 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 |  |  |  |
| :---: | :---: | :---: | :---: |
| $001=A$ | $021=\mathbf{U}$ | $041=\div$ | 061 =EIN |
| $002=B$ | $022=$ V | 042 $=$ * | $062=A U S$ |
| $003=\mathbf{C}$ | $023=W$ | $043=$ | 063 =AUF |
| $004=$ D | $024=\mathbf{X}$ | 044 = \# | 064 =AB |
| $005=$ E | $025=\mathbf{Y}$ | $045=\leftrightarrow$ | $065=\mathbf{O N}$ |
| $006=$ F | $026=\mathbf{Z}$ | 046 $=\downarrow$ | $066=$ OFF |
| $007=\mathbf{G}$ | $027=0$ | $047=\rightarrow$ | 067 =UP |
| $008=\mathrm{H}$ | $028=1$ | $048=\leftarrow$ | 068 =DOWN |
| $009=1$ | $029=2$ | $049=\downarrow$ | 069 =HIGH |
| $010=$ J | $030=3$ | $050=\uparrow$ | 070 =LOW |
| $011=$ K | $031=4$ | 051 = \% | 071 =ON/OFF |
| $012=$ L | $032=5$ | $052=\sqrt{ }$ | $072=$ START |
| $013=$ M | $033=6$ | 053 =CTRL | $073=$ RESET |
| $014=\mathbf{N}$ | $034=7$ | 054 =RETURN | $074=$ - |
| $015=0$ | $035=8$ | 055 =SHIFT | $075=$ |
| $016=\mathbf{P}$ | $036=9$ | 056 =LOCK | $076=\triangle$ |
| $017=\mathbf{Q}$ | 037 =+ | 057 =STOP | 077 = (1) |
| $018=\mathbf{R}$ | $038=-$ | 058 =ENTER |  |
| $019=$ S | $039=$. | 059 =BACK |  |
| $020=\mathbf{T}$ | $040=x$ | $060=$ LINE |  |

## All Variants

| Mounting <br> Diameter | Terminal | Housing Material, <br> Torsion Protection | Colour of Housing | Actuator area | Illumination, LED | Config. Code | Order Number |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 27 | Flexible wire | Aluminum ,no | Alu natural | F | RI dotted, red / green, 24 VDC | PSE M 27 NO RI | 1241.3011 |
| 27 | Flexible wire | Aluminum ,no | Alu natural | F | RI homogeneous, RGB, 5-28 VDC | PSE M 27 NO RI | 1241.3666 |

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.
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
Legend:
Type: PSE
$\mathrm{NO}=$ normaly open
$\mathrm{IV}=$ prolonged signal
$R U=P I=$ Point Illumination
$\mathrm{RI}=$ Ring Illumination
LE = Lettered
$\mathrm{K}=$ Plastics

Alu $=$ Aluminium
ES = Stainless steel
$\mathrm{F}=$ Finger guidance
$E=$ without finger guidance

## Packaging unit



- Actuating elements in ESD safe packaging
- Screw nuts and sealing rings in a bag (enclosd in the box)


## Accessories

## Description



Power Supply
Power Supply IP42 for LED- and Illumination applications indoor 90~264 VAC => 24 VDC 0.34 A 8 W

## X-ON Electronics

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