#### Piezo Switch N.O.



Green ring illumination with wires (stranded) **PSE NO 27** 



Multicolor Blue ring illumination with wires (stranded) PSE M27 RI RGB

#### 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
- 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

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

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Alternative: Other diameter

Alternative: switch with prolonged signal: PSE AE 16; PSE AE 30

pdf data sheet, html datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product, Microsite

## **Technical Data**

Electrical Data			
Switching Function	momentary		
Supply Voltage	24 VDC Ring Illumination 24 VDC Point Illumination		
	5 VDC and 12 VDC variants on request (MOQ 500 pieces)		
Supply Voltage RGB	5 - 28 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	$> 10 \text{ M}\Omega$		
Switch Resistance ON	$< 20 \Omega$ 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 Consumtion (max per	16.5 mA @ 5 VDC		
color)			
	8.2 mA @ 12 VDC		
	5.5 mA @ 24 VDC		
	4.8 mA @ 28 VDC		

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	Stainless Steel, Aluminum anodized
Ring Illumination)	
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.

#### **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
<u>IEC</u>	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.

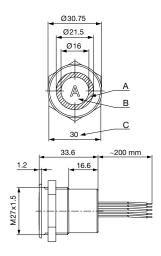
### **Compliances**

The product complies with following Guide Lines

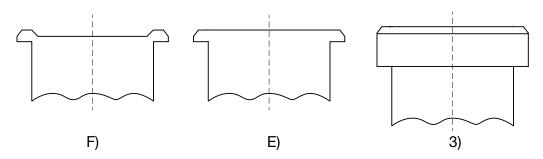
Identification	Details	Initiator	Description
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into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

# Dimension [mm]

PSE M27 RI



# 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:

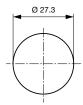
- either with/without lettering
- position of the connections with respect to the position of the lettering is not defined

F) with finger guidance

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

### **Dimension**

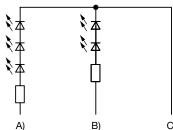
# PSE M27

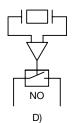


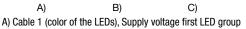
Drilling diagram

### **Diagrams**

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

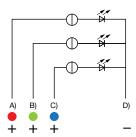


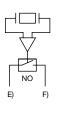




- B) Cable 3 (color of the LEDs), Supply voltage second LED group C) Cable 2 (black), Common mass of both LED groups
- D) Cable 4 and 5 (white), Input and output PSE switch

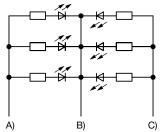
# PSE M22 / M24 / M27 / M30 RI RGB

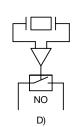




- A) Cable 1 (color of the LED), Supply voltage
- B) Cable 2 (color of the LED), Supply voltage
- C) Cable 3 (color of the LED), Supply voltage
- D) Cable 4 (black), Common mass
- E) Cable 5/6 (white), Input and output PSE switch
- F) Cable 5/6 (white), Input and output PSE switch

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





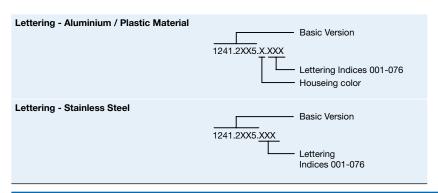
- A) Cable 1 (color of the LEDs), Supply voltage first LED group
- B) Cable 2 (black), Common mass of both LED groups
- C) Cable 3 (color of the LEDs), Supply voltage second LED group
- D) Cable 4 and 5 (white), Input and output PSE switch

# Illumination options for RGB

Lighting type	Active terminal A)	Active terminal B)	Active terminal C)	Resulting Color
Multicolor Singlecolor	А			Red •
Multicolor Singlecolor		В		Green
Multicolor Singlecolor			С	Blue
Multicolor RGB Additive 2	А	В		Yellow -
Multicolor RGB Additive 2	А		С	Magenta
Multicolor RGB Additive 2		В	С	Cyan 🔵
Multicolor RGB Additive 3	А	В	С	White 🔘

#### 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 = <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 =1	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 =+	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>	

#### **All Variants**

Mounting Diameter	Terminal	Housing Material, 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.



Illumination, LED Mounting Terminal Housing Material, Config. Code Order Number Diameter **Torsion Protection** 

5 VDC and 12 VDC RI variants on request (MOQ 500 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 = normaly open

IV = prolonged signal

RU = PI = Point Illumination

RI = Ring Illumination

LE = Lettered

K = Plastics

Alu = Aluminium

ES = Stainless steel

F = Finger guidance

 $\mathsf{E} = \mathsf{without}$  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



**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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MDPSSGLFS 810KSV30B FLT 2U EE 01A MML21KA3ABK MML23KA3AC05K-001 MML23KW3AA01W 8418K2 8646AB6X718UL

8646ABUL FSDWH 9001KXRK 9001T8BK 9533CD4+U574+U4922 1203MRA A22EM01S A595 1202A6 12037A2ULCSA 1203A2UL

ABD122N-B 1211390004 ABN111-Y ABN400-R 1211500044 1211580012 1212MRA 1232A6NF RA3CSH6A 1241.1183.7047

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