Piezo Switch N.O.

PSE M24 RI red

PSE M24 RI Multicolor

See below:
Approvals and Compliances

Description
- Available in version Standard and lettered, from diameter 22 mm with Point Illumination or Ring Illumination
- Multicolor: 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 multicolor 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
- as keypad, type: Piezo Keypad

References
Alternative: switch with prolonged signal: PSE AE 16;   PSE AE 30
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
Alternative: Other diameter
Alternative: Piezo key pads: Piezo Keypads

Weblinks
html-datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product, Microsite

Technical Data

Electrical Data
Switching Function	N.O.
Supply Voltage	12 / 24 VDC Ring Illumination 24 VDC Point Illumination
Supply Voltage Multicolor	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 MΩ
Switch Resistance ON	< 20 Ω 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 color)	16.5 mA @ 5 VDC
	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
Tightening Torque	2.5 Nm

Climatical Data
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +85 °C
IP-Protection	IP 67 acc. to IEC 60529, IP 69K 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, Aluminium anodized, Polyamide
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

Approvals

Approval Reference Type:

Approval Logo	Certification Body	Description
	EU	EMC: EMC directive 2004/108/EWG
		DGUV 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		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
IEC	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	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
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 M24 RI

PSE M24 RI Multicolor with wires and with finger guidance
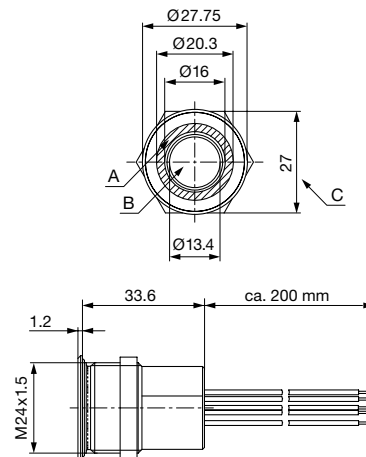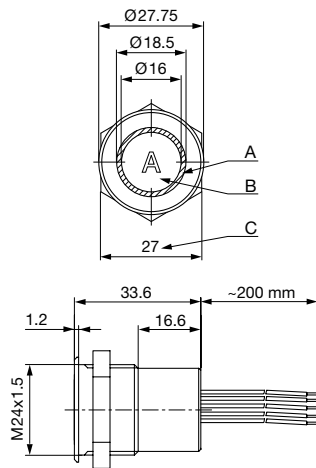
Design actuating area

F)   E)   3)
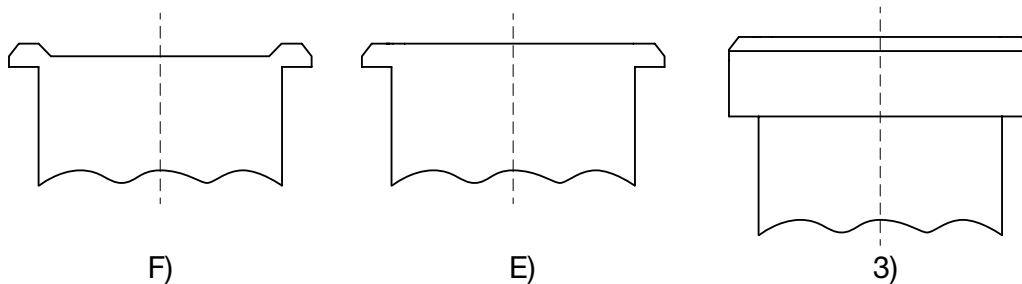
Legend:
A = Illumination Area
B = Actuating Area
C = Width Across Flats
I = Crimp Terminal male 6.3 x 0.8
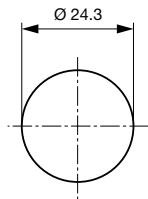PI = Point Illumination
RI = Ring Illumination

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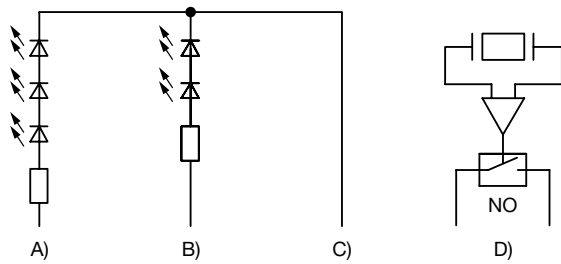3) elevated front design: M19 (standard, others on request)

Dimension

PSE M24

Ø 24.3

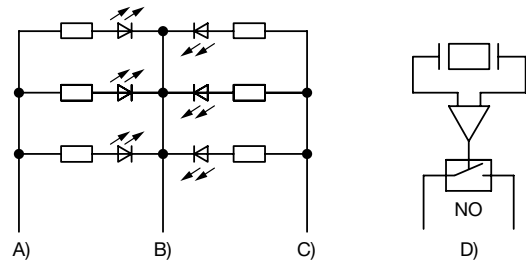Drilling diagram

Diagrams

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

A) B) C) D)

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) C) D)

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 Multicolor

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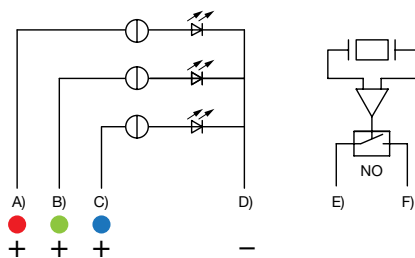
A) Cable 1 (color of the LED), Supply voltage
B) Cable 2 (color of the LED), Supply voltage
C) Cable 3 (color of the LED), Supply voltage
D) Cable 4 (black), Common mass
E) Cable 5/6 (white), Input and output PSE switch
F) Cable 5/6 (white), Input and output PSE switch

Illumination options for Multicolor

Lighting type	Active terminal A) 🔴	Active terminal B) 🟢	Active terminal C) 🔵	Resulting 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 ⚪

Lettering

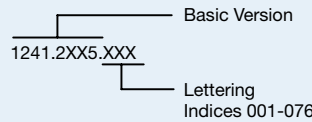|	
The last three digits in the order number define the lettering:	
001-076	Standard Lettering
101-	Customized Lettering

Lettering - Aluminium / Plastic Material

1241.2XX5.X.XXX
- Basic Version
- Lettering Indices 001-076
- Houseing color
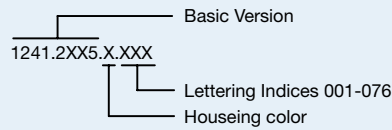
Lettering - Stainless Steel

1241.2XX5.XXX
- Basic Version
- Lettering Indices 001-076

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
24	Flexible wire	Aluminum ,no	Alu natural	F	Ring Illumination, red / green, 12 VDC	PSE M 24 NO RI	1241.3134
24	Flexible wire	Aluminum ,no	Alu natural	F	Ring Illumination, red / green, 24 VDC	PSE M 24 NO RI	1241.3010
24	Flexible wire	Aluminum ,no	Alu natural	F	Ring Illumination, multicolor, 5 - 28 VDC	PSE M 24 NO RI	1241.3665

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 = normaly 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 (enclosd 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

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