

Piezo Switch N.O.



PSE M22 PI



PSE M22 PI blue

**Description**

- Available in version Standard and lettered, from diameter 22 mm with Point Illumination or Ring Illumination - Assembly by mounting with nut - Pins, Wire, Crimp Terminal male or Cable with Faston

Approvals

- 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 Certificate Number: DIN EN 61000-4-2, DIN EN 61000-4-4, DIN EN 61000-4-5

Characteristics

- Housing material types: plastic, aluminum or stainless steel, ring illuminated version additionally made of polyamide
- Variety of design options regarding size, colour, shape, connection or lettering
- High reliability, long lifetime with more than 20 mill. actuations
- For use in harsh environments, both indoors and outdoors

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

Weblinks

[html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#)

Technical Data**Electrical Data**

Switching Function	N.O.
Supply Voltage	12 / 24 VDC Ring Illumination, 24 VDC Point Illumination,
Switching Voltage	max. 42 / 60 VAC/DC
Switching Current	max. 100 mA
Rated Breaking Capacity	1 W
Lifetime	20 million 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

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 Front Side submerged (1m water column), IP 69K Front side High Pressure cleaner test, front side / rear side DIN EN 60068-2-30 Db (Moist heat - air test with 55°C / 93% humidity)

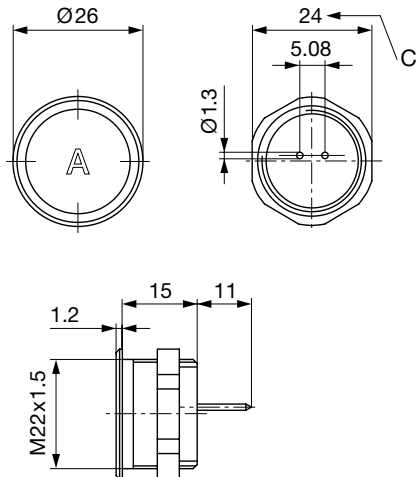
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time
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Material

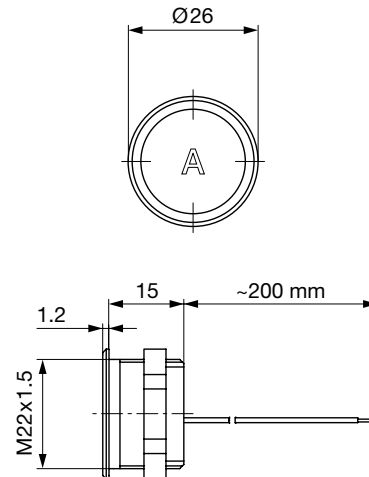
Housing (depending on type)	Stainless Steel, Aluminium anodized, Polyamide
Actuating Area / Insert (with Ring Illumination)	Stainless Steel, Aluminium anodized
Illuminated Ring (Ring Illumination)	Polyamide

Dimensions

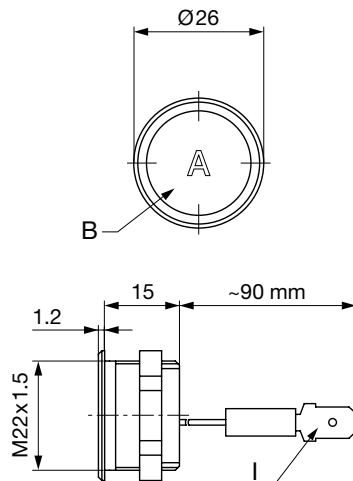
PSE M22 with Pins



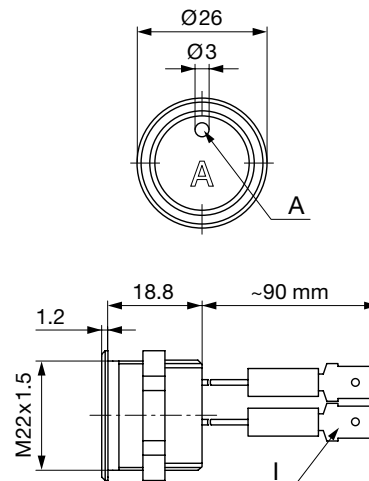
PSE M22 with Wire



PSE M22 with Crimp Terminal male

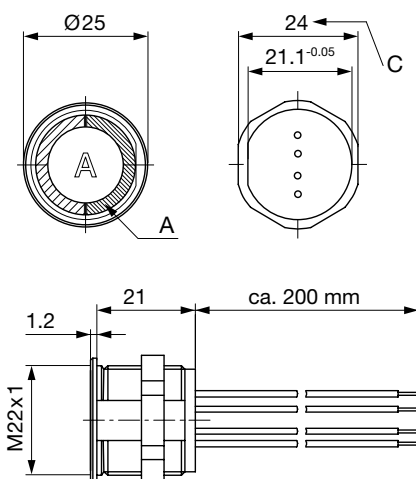


PSE M22 PI with Crimp Terminal male

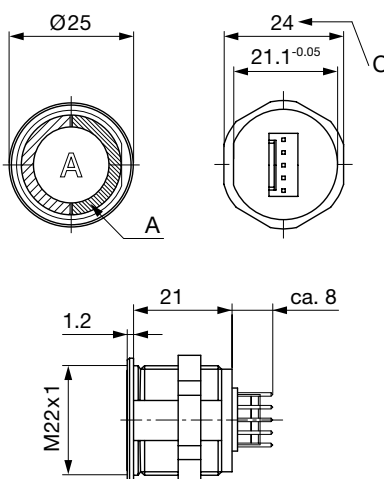


Version available on request

PSE M22 RI with Wires



PSE M22 RI with Plug Connector



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

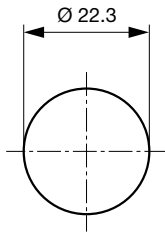
Lettering:

- either with/without lettering

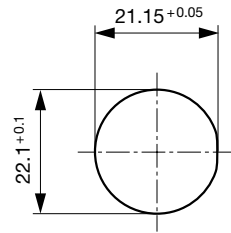
- position of the connections with respect to the position of the lettering is not defined

Dimensions

PSE M22

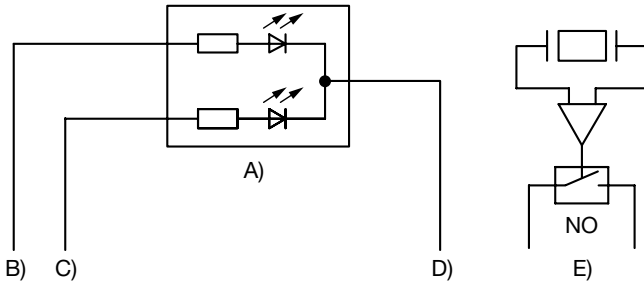


PSE M22 RI



Diagrams

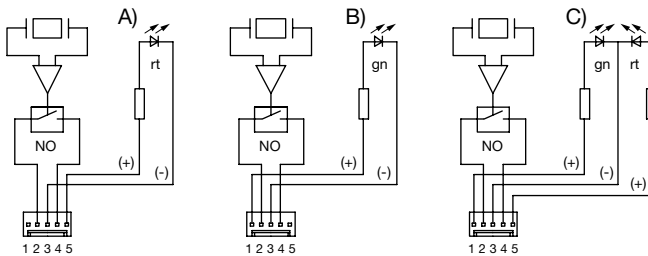
PSE PI



- A) Double-LED (2 colors, 3 pins) or simple LED (2 pins)
 B) Cable 1 (color 1 of the LED), Supply voltage
 C) Cable 2 (color 2 of the LED), Supply voltage
 D) Cable 3 (black), Mass

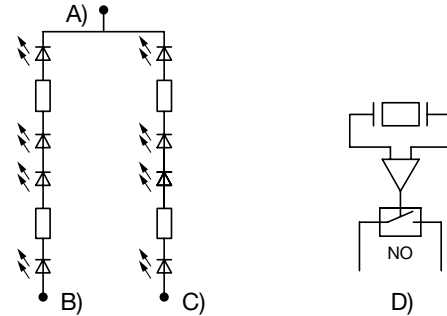
- E) Cable 4 and 5 (white), input and output PSE switch

PSE M22 RI with Quick Connect Terminal, 12/24 V



- A) Illuminated red
 B) Illuminated green
 C) Illuminated red/green

PSE M22 RI with Wires, 12/24 V



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

PI = point illumination

RI = ring illumination

Lettering

The last three digits in the order number define the lettering:

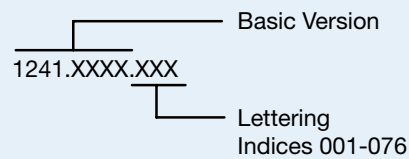
001-076

Standard Lettering

101-

Customized Lettering

Ordering Example for Lettering



Order Index Lettering

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	
018 = R	038 = -	058 = ENTER	
019 = S	039 = .	059 = BACK	
020 = T	040 = x	060 = LINE	

Variants

Mounting Diameter	Terminal	Housing Material, Twist Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
22	Flexible wire	Aluminum ,yes	Alu natural	F	Ring Illumination, blue, 12 VDC	PSE M 22 NO RI	1241.3390
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 12 VDC	PSE M 22 NO RI	1241.3251
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 12 VDC	PSE M 22 NO RI	1241.3252
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 12 VDC	PSE M 22 NO RI	1241.3250
22	Flexible wire	Aluminum ,yes	Alu natural	F	Ring Illumination, blue, 24 VDC	PSE M 22 NO RI	1241.3413
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 24	PSE M 22 NO RI	1241.3257
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 24 VDC	PSE M 22 NO RI	1241.3258
22	Flexible wire	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 24 VDC	PSE M 22 NO RI	1241.3256
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 12 VDC	PSE M 22 NO RI	1241.3254
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 12 VDC	PSE M 22 NO RI	1241.3253
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, green, 24 VDC	PSE M 22 NO RI	1241.3260
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 24 VDC	PSE M 22 NO RI	1241.3261
22	Plug Connector	Aluminum ,yes	Alu natural	E	Ring Illumination, red, 24 VDC	PSE M 22 NO RI	1241.3259
22	Quick Connect Terminal	Aluminum ,yes	Alu natural	F	Point Illumination, blue, 24 VDC	PSE M 22 NO PI	1241.3244.M
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, green, 24 VDC	PSE M 22 NO PI	1241.3089.M
22	Quick Connect Terminal	Aluminum ,no	green	F	Point Illumination, green, 24 VDC	PSE M 22 NO PI	1241.3167.M
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, red, 24 VDC	PSE M 22 NO PI	1241.3020.M
22	Quick Connect Terminal	Aluminum ,no	red	F	Point Illumination, red, 24 VDC	PSE M 22 NO PI	1241.3166.M
22	Quick Connect Terminal	Aluminum ,no	Alu natural	F	Point Illumination, yellow, 24 VDC	PSE M 22 NO PI	1241.3047.M
22	Quick Connect Terminal	Aluminum ,yes	gold	F	Point Illumination, yellow, 24 VDC	PSE M 22 NO PI	1241.3222.M
22	Molex connection	Aluminum ,yes	Alu natural	E	Ring Illumination, red / green, 12 VDC	PSE M 22 NO RI	1241.3255
22	Pins	Aluminum ,no	red	F	non-illuminated	PSE M 22 NO	1241.3005
22	Pins	Aluminum ,no	green	F	non-illuminated	PSE M 22 NO	1241.3006

Mounting Diameter	Terminal	Housing Material, Twist Protection	Colour of Housing	Actuator area	Illumination, LED	Config. Code	Order Number
22	Pins	Aluminum ,no	black	F	non-illuminated	PSE M 22 NO	1241.3007
22	Pins	Aluminum ,no	Alu natural	F	non-illuminated	PSE M 22 NO	1241.3008
22	Pins	Aluminum ,no	Alu natural	E	non-illuminated	PSE M 22 NO	1241.3593
22	Flexible wire	Stainless Steel ,no	-	E	Point Illumination, green, 24 VDC	PSE M 22 NO PI	1241.3594.M
22	Pins	Stainless Steel ,no	-	F	non-illuminated	PSE M 22 NO	1241.3075

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

Plastic nut with gasket are enclosed in the box.

Other mounting diameters, materials, colors, connections, supply voltages on request.

Special materials for use in salt and chlorinated environment as customized solutions possible.

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