

## Datasheet - PS116-Z11-ST-N200



Position switch / PS116 Thermoplastic enclosure - EN 50047 with Actuator / PS116 Roller lever N200



- Thermoplastic enclosure
- Symmetric enclosure
- Lever angle adjustable in 15° steps
- Protection class IP66, IP67
- Actuator heads can be repositioned by 8 x 45°
- length adjustable in 2 mm steps
- connector plug M12, bottom
- Snap action 1 Normally open contact (NO) / 1 Opener (NC)

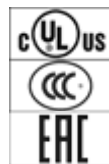
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	PS116-Z11-ST-N200
Article number	103006661
EAN Code	
eCl@ss	27-27-26-01

### Approval


Approval



### Classification

Standards	ISO 13849-1
B10d Normally-closed contact (NC)	20.000.000
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{ap} \times h_{ep} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Permanent light	PS116 Rollenschwenkhebel N200
Standards	IEC 60947-5-1
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, zinc die-cast, chromated
- Material of the contacts	Silver
Housing coating	None
Housing construction form	Norm construction design
Weight	130 g


## Mechanical data

Design of electrical connection	Connector M12, 4-pole
Connector	bottom
Mechanical life	10.000.000 operations
Switching frequency	max. 5000 /h
Design of actuating element	Roller lever N200
Actuating force	min. 15 Ncm
Bounce duration	< 3 ms
Switchover time	< 5.5 ms
Positive break force	60 Ncm
Actuating speed for vertical actuation	
- Min. Actuating speed	240 mm/min
- Max. Actuating speed	1 m/s

## Ambient conditions

Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
Protection class	IP66, IP67

## Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Snap switch element
- positive break NC contact 	
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Rated impulse withstand voltage $U_{imp}$	2.5 kV
Rated insulation voltage $U_i$	300 V
Thermal test current $I_{the}$	2.5 A
Utilisation category	AC-15: 240 V / 1,5 A, DC-13: 24 V / 1,5 A
Required rated short-circuit current	1000 A
Max. fuse rating	6 A gG D-fuse (quick-blow)

## ATEX

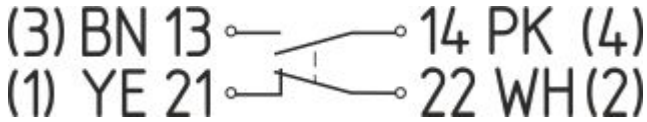
Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

Dimensions of the sensor

- Width of sensor	31 mm
- Height of sensor	139 mm
- Length of sensor	16.6 mm
Roller diameter	20 mm

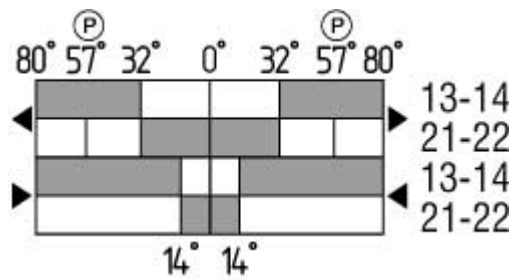
## Diagram



Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

## Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

## Ordering code

PS116-(1)-(2)-(3)-(4)

(1)

Z11	Snap action 1 Normally open contact (NO) / 1 Opener (NC)
Z02	Snap action 2 Opener (NC)
Z12	Snap action 1 Normally open contact (NO) / 2 Opener (NC)
Z11R	Snap action 1 Normally open contact (NO) / 1 Opener (NC) with Latching
Z02R	Snap action 2 Opener (NC) with Latching
Z12R	Snap action 1 Normally open contact (NO) / 2 Opener (NC) with Latching
T11	Slow action 1 Normally open contact (NO) / 1 Opener (NC)
T02	Slow action 2 Opener (NC)

<b>T20</b>	Slow action 2 Normally open contact (NO)
<b>T12</b>	Slow action 1 Normally open contact (NO) / 2 Opener (NC)
<b>T21</b>	Slow action 2 Normally open contact (NO) / 1 Opener (NC)
<b>T03</b>	Slow action 3 Opener (NC)
<b>T11UE</b>	Slow action with overlapping contacts 1 Normally open contact (NO) / 1 Opener (NC)
<b>T02H</b>	Slow action with staggered contacts 2 Opener (NC)
<b>(2)</b>	
<b>L200</b>	Pre-wired cable bottom, Cable length 2 m
<b>LR200</b>	Pre-wired cable right, Cable length 2 m
<b>ST</b>	connector plug M12, bottom
<b>STR</b>	connector plug M12, right
<b>(3)</b>	
<b>S20</b>	Plunger S200
<b>R20</b>	Roller plunger R200
<b>K20</b>	Offset roller lever K200
<b>K21</b>	Offset roller lever K210
<b>K23</b>	Angle roller lever K230
<b>K24</b>	Angle roller lever K240
<b>K25</b>	Angle roller lever K250
<b>H20</b>	Roller lever H200
<b>N20</b>	Roller lever N200
<b>J20</b>	Rod lever J200
<b>(4)</b>	
<b>0</b>	Material Castor/Roller: Plastic
<b>1</b>	Material Castor/Roller: Stainless steel
<b>2</b>	Material Castor/Roller: Brass
<b>3</b>	Material Castor/Roller: Aluminium
<b>4</b>	Material Castor/Roller: Steel

## Documents

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**Operating instructions** (en) 628 kB, 06.07.2018

Code: mrlk\_ps116\_en

**Operating instructions** (pl) 659 kB, 16.02.2017

Code: mrlk\_ps116\_pl

**Operating instructions** (pt) 628 kB, 17.03.2017

Code: mrlk\_ps116\_pt

**Operating instructions** (nl) 0 Byte, 28.02.2018

Code: mrlk\_ps116\_nl

**Operating instructions** (es) 627 kB, 06.07.2018

Code: mrlk\_ps116\_es

**Operating instructions** (de) 630 kB, 06.07.2018

Code: mrlk\_ps116\_de

**Operating instructions** (fr) 629 kB, 11.05.2017

Code: mrlk\_ps116\_fr

**Operating instructions** (it) 626 kB, 30.06.2017

Code: mrlk\_ps116\_it

**Declaration of conformity** (en) 88 kB, 22.11.2017

Code: konfi\_mrl\_ps116\_en

**Declaration of conformity** (de) 87 kB, 22.11.2017

Code: konfi\_mrl\_ps116\_de

**Brochure** (jp) 1 MB, 14.10.2015

Code: b\_ps116\_jp

**Brochure** (cs) 1 MB, 14.10.2015

Code: b\_ps116\_cs

**Brochure** (de) 2 MB, 09.10.2015

Code: b\_ps116\_de

**Brochure** (en) 1 MB, 14.10.2015

Code: b\_ps116\_en

**Brochure** (nl) 1 MB, 14.10.2015

Code: b\_ps116\_nl

**Brochure** (it) 1 MB, 14.10.2015

Code: b\_ps116\_it

**Brochure** (pl) 1 MB, 14.10.2015

Code: b\_ps116\_pl

**Brochure** (pt) 1 MB, 14.10.2015

Code: b\_ps116\_pt

**Brochure** (es) 1 MB, 14.10.2015

Code: b\_ps116\_es

**Brochure** (fr) 1 MB, 14.10.2015

Code: b\_ps116\_fr

**CCC certification** (en) 1 MB, 22.06.2017

Code: q\_ps1p01

**CCC certification** (cn) 1 MB, 22.06.2017

Code: q\_ps1p02

**EAC certification** (ru) 844 kB, 05.10.2015

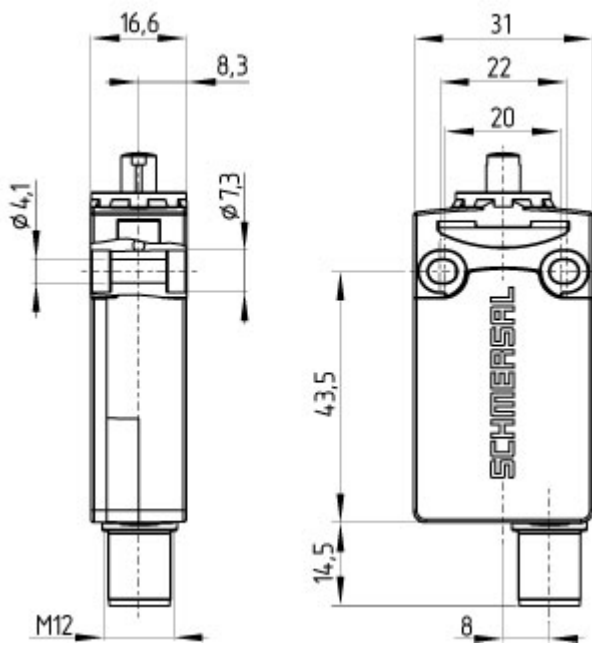
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## Images

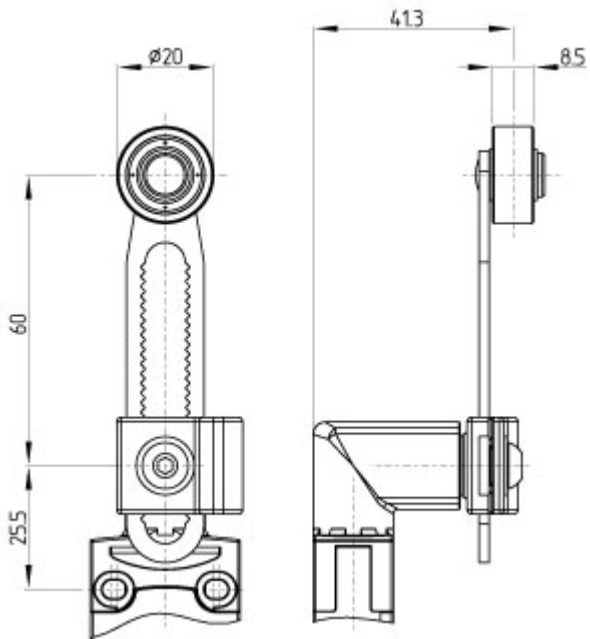
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Product photo



Dimensional drawing (basic component)



Dimensional drawing (actuator)

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

Generiert am 13.02.2019 - 13:50:17h Kasbase 3.3.0.F.64I