

## Datasheet - PS116-T11-LR200-K200



Position switch / PS116 Thermoplastic enclosure - EN 50047 with Actuator / PS116 Offset roller lever K200



- Thermoplastic enclosure
- Symmetric enclosure
- Protection class IP66, IP67
- Actuator heads can be repositioned by 8 x 45°
- Pre-wired cable right, 2
- Slow 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-T11-LR200-K200 |
| Article number           | 103006568            |
| 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                            | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

### Global Properties

|                                      |                        |
|--------------------------------------|------------------------|
| Permanent light                      | PS116 Rollenhebel K200 |
| Standards                            | IEC 60947-5-1          |
| Compliance with the Directives (Y/N) | Yes                    |

|                                     |   |
|-------------------------------------|---|
| Suitable for safety functions (Y/N) | Yes   |
| Actuator type                       | E to EN 50047   |
| 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  |
| Cable colour                        | Grey  |
| Cable type                          | LiYY  |
| Weight                              | 150 g   |

## Mechanical data

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|  |                          |
|--|--------------------------|
| Design of electrical connection        | Cable, 4-pole            |
| Connector                              | right                    |
| Conductors                             | 4 x 0,5 mm <sup>2</sup>  |
| Mechanical life                        | 10.000.000 operations    |
| Switching frequency                    | max. 5000 /h             |
| Design of actuating element            | Offset roller lever K200 |
| Actuating force                        | min. 7.5 N               |
| Bounce duration                        | < 3 ms                   |
| Switchover time                        | < 5.5 ms                 |
| Positive break force                   | 40 N                     |
| Actuating speed for vertical actuation |                          |
| - Min. Actuating speed                 | 240 mm/min               |
| - Max. Actuating speed                 | 1 m/s                    |
| Cable length                           | 2 m                      |


## Ambient conditions

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

## Electrical data

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|   |  |
|---|--|
| Design of control element   | Normally open contact (NO), Opener (NC)    |
| Switching principle   | Creep circuit element                      |
| - positive break NC contact  |  |
| Number of auxiliary contacts  | 1 piece                                    |
| Number of safety contacts   | 1 piece                                    |
| Rated impulse withstand voltage U <sub>imp</sub>  | 4 kV                                       |
| Rated insulation voltage U <sub>i</sub>   | 300 V                                      |
| Thermal test current I <sub>the</sub>   | 5 A  |
| Utilisation category  | AC-15: 240 V / 3 A,<br>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

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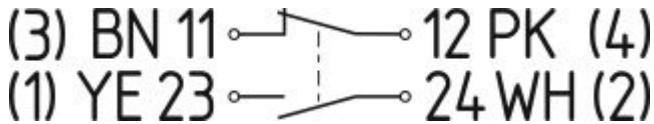
|   |      |
|---|------|
| Explosion protection categories for gases | None |
| Explosion protected category for dusts    | None |

## Dimensions

Dimensions of the sensor

|                    |            |
|--------------------|------------|
| - Width of sensor  | 31 mm      |
| - Height of sensor | 83.6 mm mm |
| - Length of sensor | 16.6 mm    |
| Roller diameter    | 12 mm      |

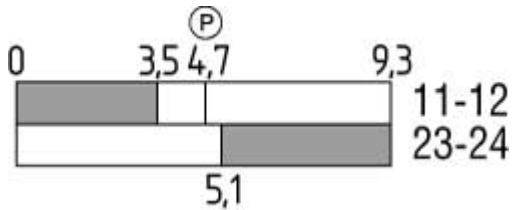
## Diagram



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)

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

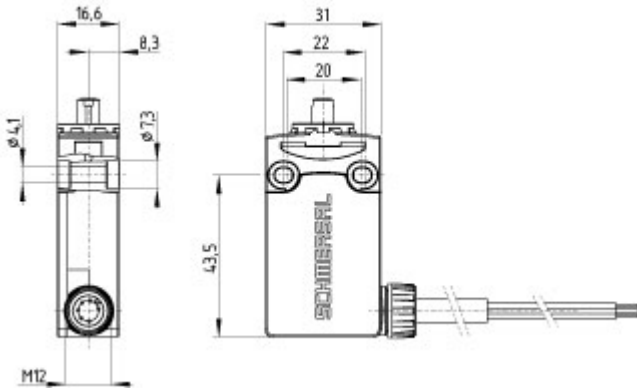
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## Images

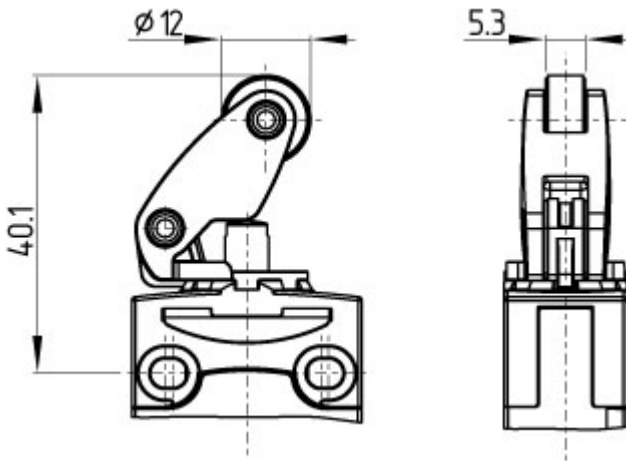
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Product photo



Dimensional drawing (basic component)



Dimensional drawing (actuator)

K.A. Schmersal GmbH & Co. KG, Mödinghofe 30, D-42279 Wuppertal

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

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