

## Datasheet - PS116-T12-L200-H200



Position switch / PS116 Thermoplastic enclosure - EN 50047 with Actuator / PS116 Roller lever H200



- Thermoplastic enclosure
- Lever angle adjustable in 15° steps
- Symmetric enclosure
- Protection class IP66, IP67
- Actuator heads can be repositioned by 8 x 45°
- Pre-wired cable bottom, 2
- Slow action 1 Normally open contact (NO) / 2 Opener (NC)

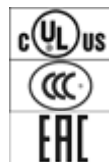
(Minor differences between the printed image and the original product may exist!)

### Ordering details

|                          |                     |
|--------------------------|---------------------|
| Product type description | PS116-T12-L200-H200 |
| Article number           | 103006649           |
| 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 Rollenschwenkhebel H200   |
| Standards  | IEC 60947-5-1   |
| Compliance with the Directives (Y/N)  | Yes   |
| Suitable for safety functions (Y/N)  | Yes   |
| Actuator type  | A 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   | 190 g   |


### Mechanical data

|  |                         |
|--|-------------------------|
| Design of electrical connection        | Cable, 6-pole           |
| Connector                              | bottom                  |
| Conductors                             | 6 x 0,5 mm <sup>2</sup> |
| Mechanical life                        | 10.000.000 operations   |
| Switching frequency                    | max. 5000 /h            |
| Design of actuating element            | Roller lever H200       |
| 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                 | 492 mm/min              |
| - Max. Actuating speed                 | 1 m/s                   |
| Cable length                           | 2 m                     |

### 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   | Creep circuit element                      |
| - positive break NC contact  |  |
| Number of auxiliary contacts  | 1 piece                                    |
| Number of safety contacts   | 2 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)                 |

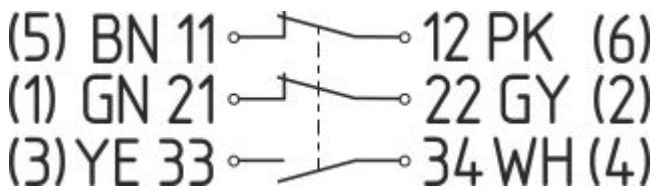
## ATEX

|   |      |
|---|------|
| 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       | 101 mm  |
| - Length of sensor       | 16.6 mm |
| Roller diameter          | 16 mm   |
| Lever length             | 24 mm   |

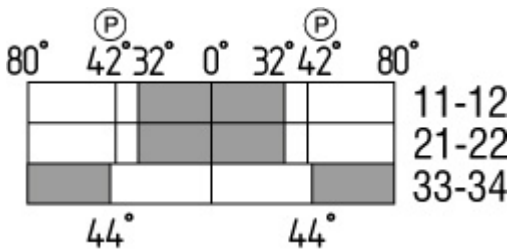
## Diagram



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

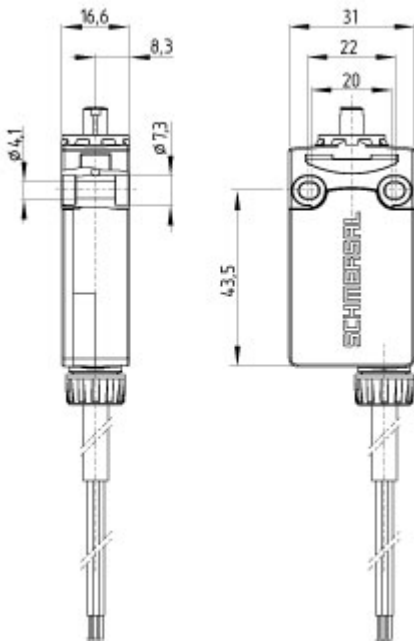
**EAC certification** (ru) 844 kB, 05.10.2015

Code: q\_6037p17\_ru



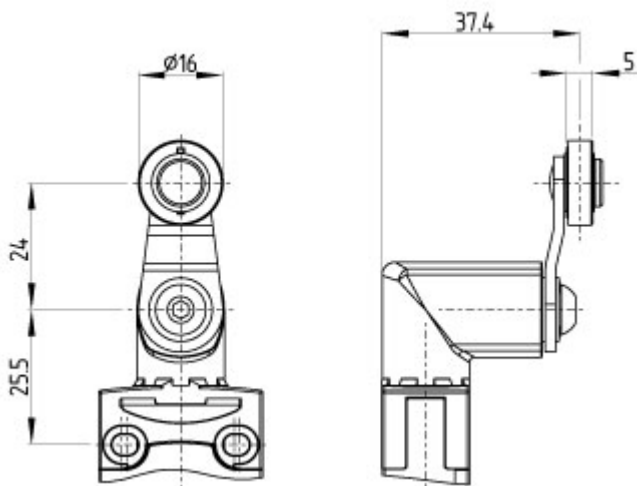
Product photo

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Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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