



**Photoelectric sensors**  
WTR, Photoelectric proximity sensor, Background suppression

WTR2-P621



**Model Name** > [WTR2-P621](#)  
**Part No.** > [1015157](#)



*Illustration may differ*

#### At a glance

- Product variants of sensor + logic + valve in one housing are available
- Housing design suited for mounting between the rollers of roller conveyor
- Precise background suppression with adjustable sensing range from 300 mm to 900 mm
- Modular structure - with or without solenoid valve or motor actuation, with or without logic

#### Your benefits

- Easy installation due to all-in-one solution: sensor + logic + valve in one housing
- Unique design allows mounting under the conveyor protecting the sensor from damage, increasing product life
- Adjustable background suppression ignores background and reliably detects products without a reflector
- Stand-alone solution that consolidates cabling, and allows for modular expansion
- Easy and reliable control of product flow reduces damage and jams, therefore reducing cost



#### Features

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| Sensor/detection principle:      | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D):          | 18 mm x 99.5 mm x 46 mm                                |
| Housing design (light emission): | Fitting roller spacings                                |
| Sensing range:                   | 300 mm ... 900 mm                                      |
| Type of light:                   | Infrared light                                         |
| Light source:                    | LED <sup>1)</sup>                                      |
| Adjustment:                      | Adjustable via sensing range adjustment                |
| Light spot size (distance):      | 40 mm (900 mm)                                         |

<sup>1)</sup> Average service life of 100,000 h at  $T_A = +25\text{ °C}$

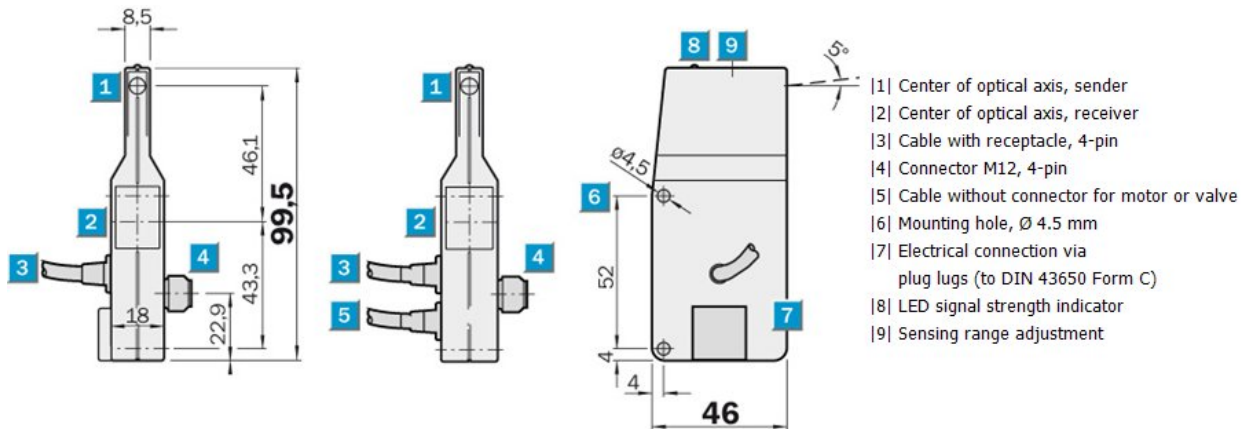
#### Mechanics/electronics

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| Supply voltage:                   | 10 V DC ... 30 V DC <sup>1)</sup>           |
| Ripple:                           | < 5 Vpp <sup>2)</sup>                       |
| Power consumption:                | < 25 mA <sup>3)</sup>                       |
| Output type:                      | PNP                                         |
| Switching mode:                   | Dark-switching                              |
| Signal voltage PNP HIGH/LOW:      | Approx. $V_S - < 2.0\text{ V} / 0\text{ V}$ |
| Output current I <sub>max</sub> : | ≤ 100 mA                                    |

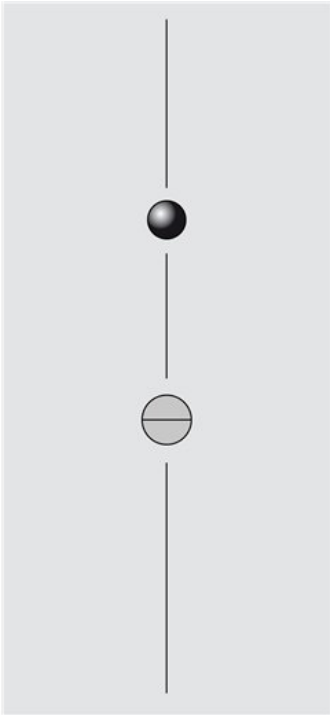
|                                |                                             |
|--------------------------------|---------------------------------------------|
| Switching frequency:           | 250 Hz                                      |
| Connection type:               | Connector M12, 4-pin                        |
| Circuit protection:::          | A, C, D <sup>4) 5) 6)</sup>                 |
| Protection class:              | II <sup>7)</sup>                            |
| Weight:                        | 110 g                                       |
| Housing material:              | ABS, Plastic                                |
| Enclosure rating:              | IP 54                                       |
| Ambient operating temperature: | -40 °C ... 60 °C                            |
| Ambient storage temperature:   | -40 °C ... 75 °C                            |
| UL File-No.:                   | UL No. NRKH.E181493 & cUL No. NRKH7.E181493 |

<sup>1)</sup> Limit values    <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances    <sup>3)</sup> Without load, without valve    <sup>4)</sup>  $A = V_S$  connections reverse-polarity protected    <sup>5)</sup> C = interference suppression    <sup>6)</sup> D = outputs overcurrent and short-circuit protected    <sup>7)</sup> Reference voltage 50 V DC

## Dimensional drawing

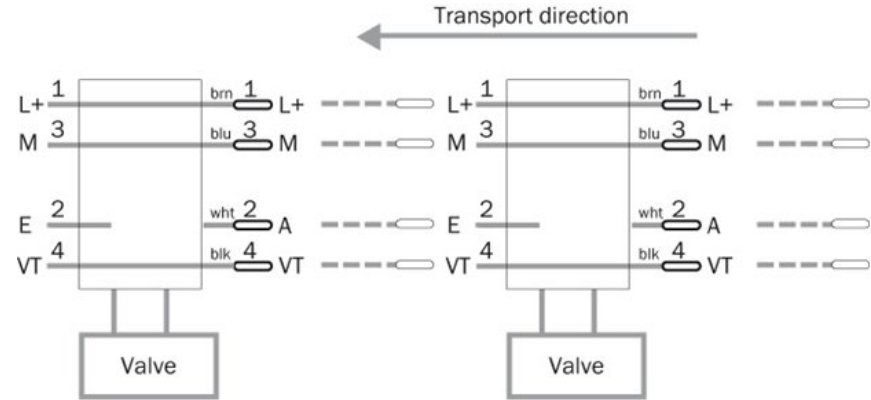


Adjustments possible

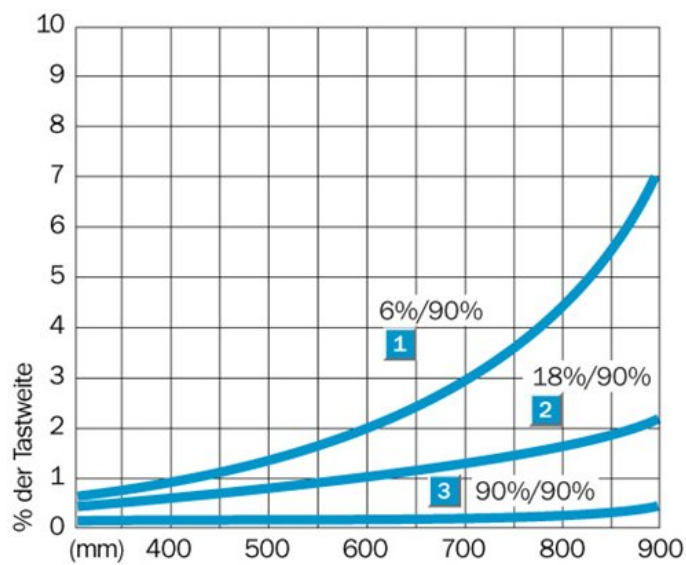


- |8| LED signal strength indicator
- |9| Sensing range adjustment

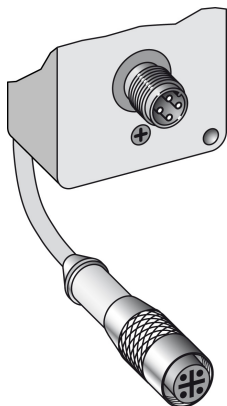
Connection diagram



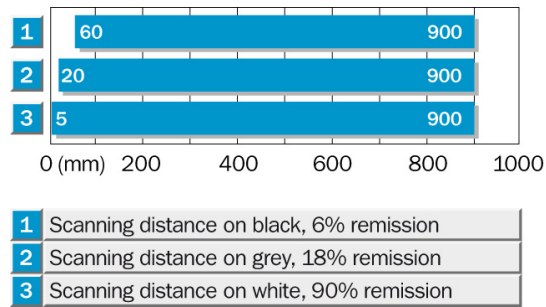
Characteristic curve



Connection type



Sensing range diagram



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