



## Photoelectric sensors W14-2, Through-beam photoelectric sensor

WS/WE14-2P430



**Model Name** > [WS/WE14-2P430](#)  
**Part No.** > [1026431](#)



*Illustration may differ*

#### At a glance

- Emitter LED with visible red light
- High operational reliability
- Test input for system diagnostics
- Rugged plastic housing

#### Your benefits

- Quick installation due to highly visible red LED
- Very high operating reserves provide trouble-free operation, even at long distances
- Reliable operation due to integrated system diagnostics
- High availability in the field



#### Features

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Sensor/detection principle:      | Through-beam photoelectric sensor |
| Dimensions (W x H x D):          | 17.6 mm x 75.5 mm x 33.5 mm       |
| Housing design (light emission): | Rectangular                       |
| Sensing range max.:              | 0 m ... 15 m                      |
| Sensing range:                   | 0 m ... 10 m                      |
| Type of light:                   | Visible red light                 |
| Light source:                    | LED <sup>1)</sup>                 |
| Wave length:                     | 645 nm                            |
| Light spot size (distance):      | Ø 300 mm (10 m)                   |

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

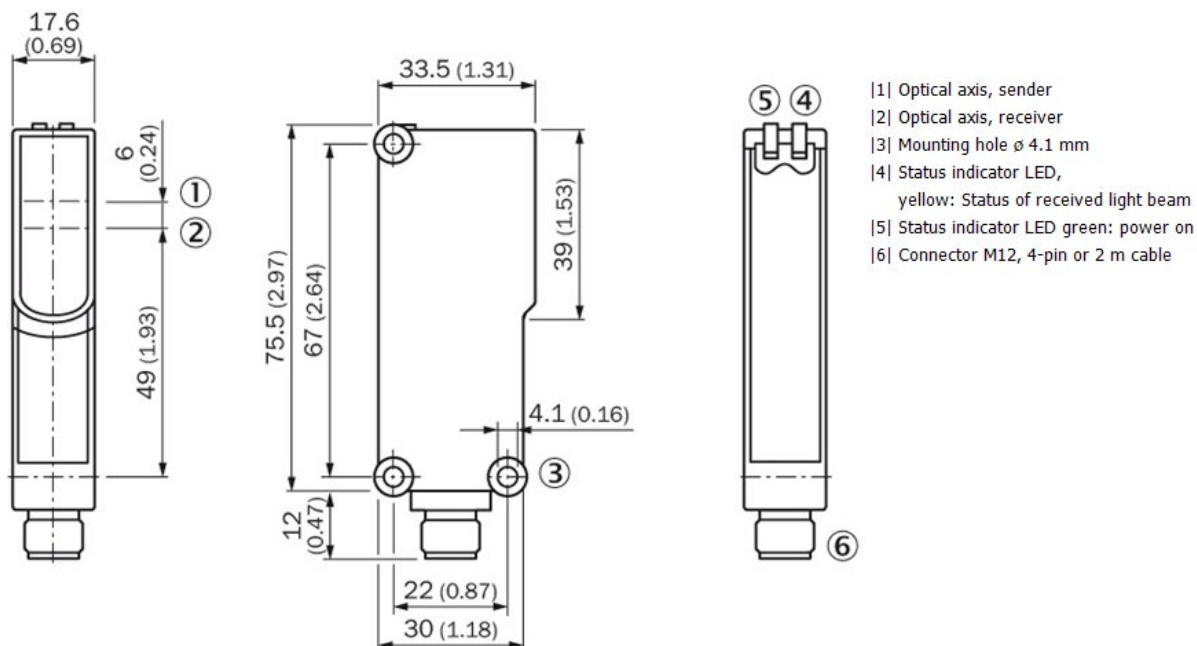
#### Mechanics/electronics

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Supply voltage:                   | 10 V DC ... 30 V DC <sup>1)</sup> |
| Power consumption, sender:        | 35 mA <sup>2)</sup>               |
| Power consumption, receiver:      | 25 mA <sup>3)</sup>               |
| Output type:                      | PNP                               |
| Output function:                  | Complementary                     |
| Switching mode:                   | Light/dark-switching              |
| Output current I <sub>max</sub> : | ≤ 100 mA                          |
| Response time:                    | ≤ 2.5 ms <sup>4)</sup>            |
| Switching frequency:              | 200 Hz <sup>5)</sup>              |
| Connection type:                  | Connector M12, 4-pin              |

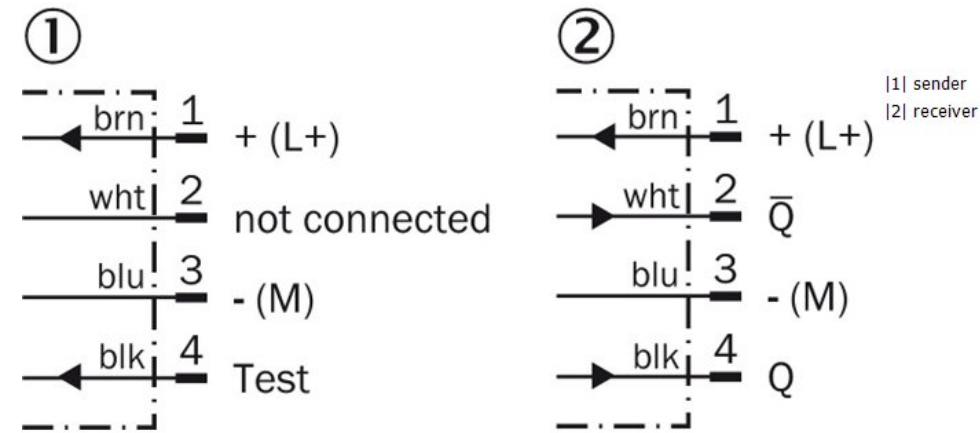
|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Circuit protection:::                 | A, C, D <sup>6) 7) 8)</sup>                                |
| Weight:                               | 40 g                                                       |
| Housing material:                     | ABS, Plastic                                               |
| Optics material:                      | PMMA                                                       |
| Enclosure rating:                     | IP 67                                                      |
| Ambient operating temperature:        | -25 °C ... 60 °C                                           |
| Ambient storage temperature:          | -40 °C ... 70 °C                                           |
| Part number of individual components: | Receiver, WE14-2P430, 2030966, Sender, WS14-2D430, 2030965 |
| UL File No.:                          | NRKH.E181493 & NRKH7.E181493                               |

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A    <sup>2) 3)</sup> Without load    <sup>4)</sup> Signal transit time with resistive load    <sup>5)</sup> With light/dark ratio 1:1    <sup>6)</sup> A = V<sub>S</sub>  
 connections reverse-polarity protected    <sup>7)</sup> C = interference suppression    <sup>8)</sup> D = outputs overcurrent and short-circuit protected

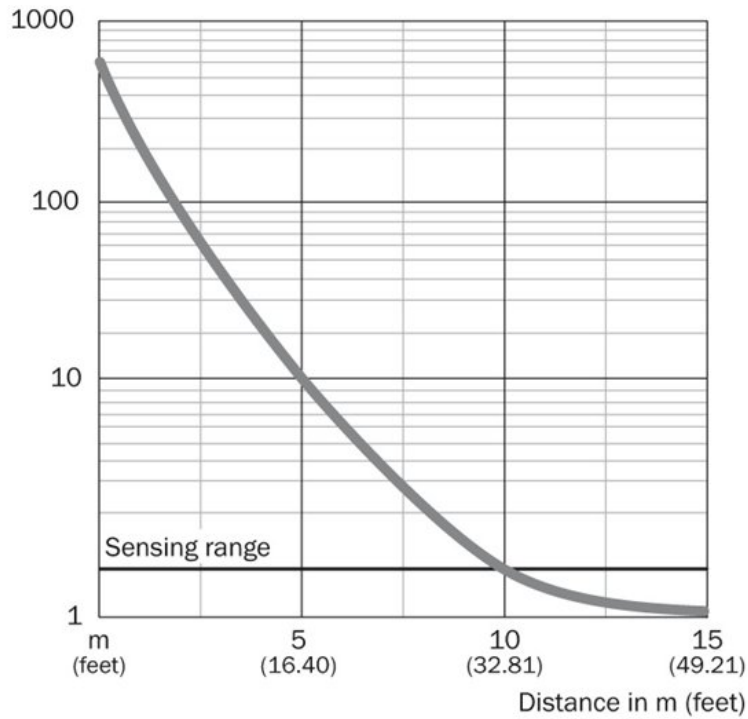
## Dimensional drawing



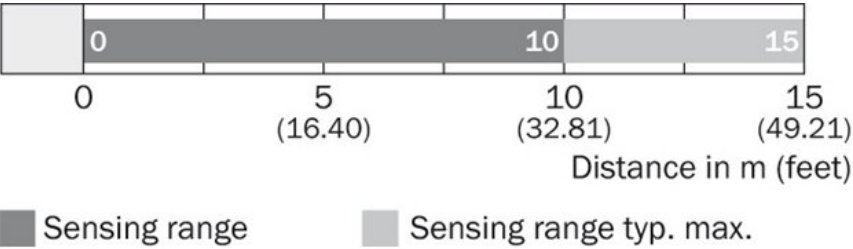
Connection diagram



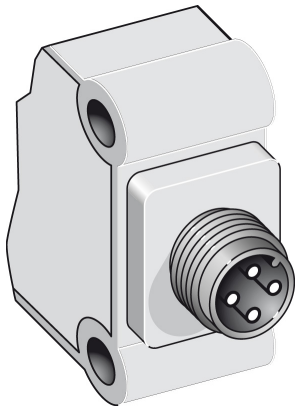
Characteristic curve



**Sensing range diagram**



**Connection type**



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