



**Fotoprzełączniki**  
**W4S-3, Fotoprzełącznik refleksyjny,**  
**autocollimation**

WL4S-3F3130



Nazwa modelu > **WL4S-3F3130**

Numer części > **1042067**



Produkt może różnić się od ilustracji

#### At a glance

- Single-lens autocollimation optics
- All models with PinPoint LED technology provides a small intense, light spot
- Maximum sensing range of 5 m
- Long sensing ranges on small reflectors
- Quality monitoring thanks to IO-Link
- Key lock function, remote teach
- Diagnostics messages (contamination and short-circuit)

#### Your benefits

- Quick and easy alignment due to the PinPoint LED's small, well-defined, intense light spot
- Single-lens autocollimation optics sees through small gaps and bore holes, enabling efficient machine integration
- Long sensing ranges are obtained on small reflectors due to the small, intense light spot
- Quick and easy threshold adjustment (depending on type)
- Simple monitoring of detection quality
- Key lock function and parameter download prevent incorrect settings



#### Cechy

|                                            |                                              |
|--------------------------------------------|----------------------------------------------|
| Zasada działania czujnika/Sposób detekcji: | Fotoprzełącznik refleksyjny, autocollimation |
| Wymiary (Szer. x Wys. x Głęb.):            | 12,2 mm x 41,8 mm x 17,3 mm                  |
| Housing design (light emission):           | Prostopadłościenna                           |
| Maks. strefa działania:                    | 0 m ... 4 m <sup>1)</sup>                    |
| Sensing range:                             | 0 m ... 2,5 m <sup>2)</sup>                  |
| Rodzaj światła:                            | Widzialne światło czerwone                   |
| Nadajnik światła:                          | Pin Point LED <sup>3)</sup>                  |
| Długość fali:                              | 650 nm                                       |
| Średnica plamki świetlnej (odległość):     | Ø 45 mm (1,5 m)                              |

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

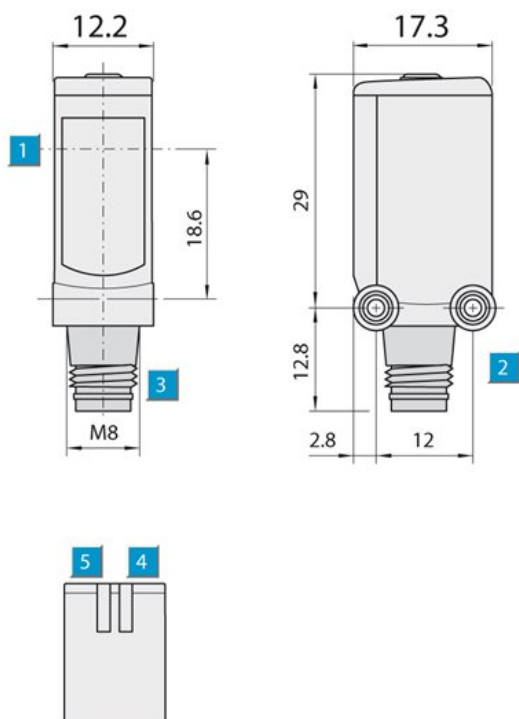
#### Mechanika/elektronika

|                      |                                   |
|----------------------|-----------------------------------|
| Napięcie zasilania:  | 10 V DC ... 30 V DC <sup>1)</sup> |
| Tętnienia resztkowe: | < 5 Vss <sup>2)</sup>             |
| Pobór prądu:         | ≤ 20 mA <sup>3)</sup>             |

|                                   |                                                      |
|-----------------------------------|------------------------------------------------------|
| Wyjście przełączające:            | PNP                                                  |
| Tryb przełączania:                | Dark-switching                                       |
| Output current I <sub>max</sub> : | ≤ 100 mA                                             |
| Czas reakcji:                     | < 0,5 ms <sup>4)</sup>                               |
| Switching frequency:              | 1.000 Hz <sup>5)</sup>                               |
| Sposób przyłączenia:              | Cable with connector M8, 3-pin, 100 mm <sup>6)</sup> |
| Cable material:                   | PVC                                                  |
| Conductor cross-section:          | 0,14 mm <sup>2</sup>                                 |
| Cable diameter:                   | Ø 3,4 mm                                             |
| Układ zabezpieczenia:::           | A, C, D <sup>7)</sup> 8) 9)                          |
| Klasa ochronności:                | III                                                  |
| Ciężar:                           | 30 g                                                 |
| Filtr polaryzacyjny:              | ✓                                                    |
| Special device:                   | -                                                    |
| Tworzywo, obudowa:                | ABS, Tworzywo sztuczne                               |
| Tworzywo, układ optyczny:         | PMMA                                                 |
| Rodzaj zabezpieczenia:            | IP 67<br>IP 66                                       |
| Ambient operating temperature:    | -40 °C ... 60 °C                                     |
| Ambient storage temperature:      | -40 °C ... 75 °C                                     |
| UL File No.:                      | NRKH.E181493 & NRKH7.E181493                         |

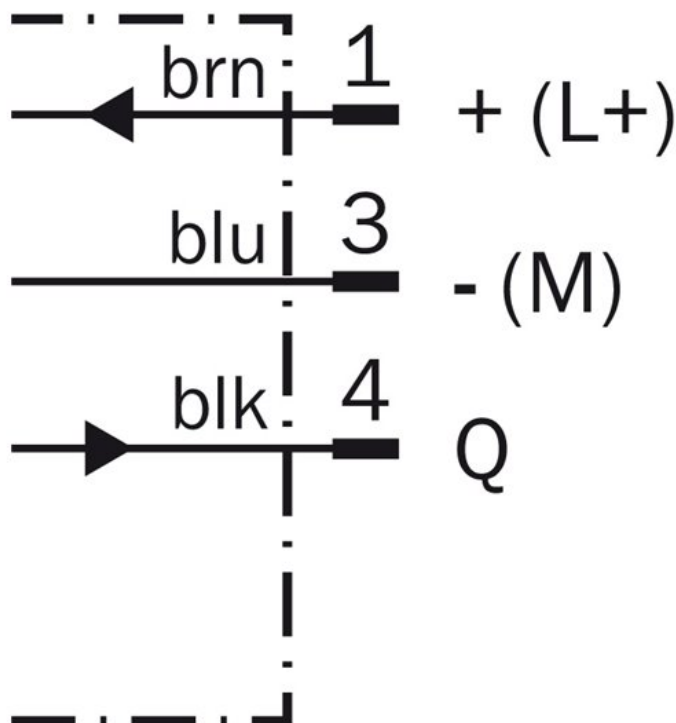
<sup>1)</sup> Limit values   <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances   <sup>3)</sup> Bez obciążenia   <sup>4)</sup> Signal transit time with resistive load   <sup>5)</sup> With light/dark ratio 1:1   <sup>6)</sup> Do not bend  
below 0 °C   <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected   <sup>8)</sup> C = interference suppression   <sup>9)</sup> D = outputs overcurrent and short-circuit protected

## Dimensional drawing



- [1] Center of optical axis
- [2] Threaded mounting hole M3
- [3] Connection
- [4] Status indicator LED green: power on
- [5] Status indicator LED, yellow: Status of received light beam

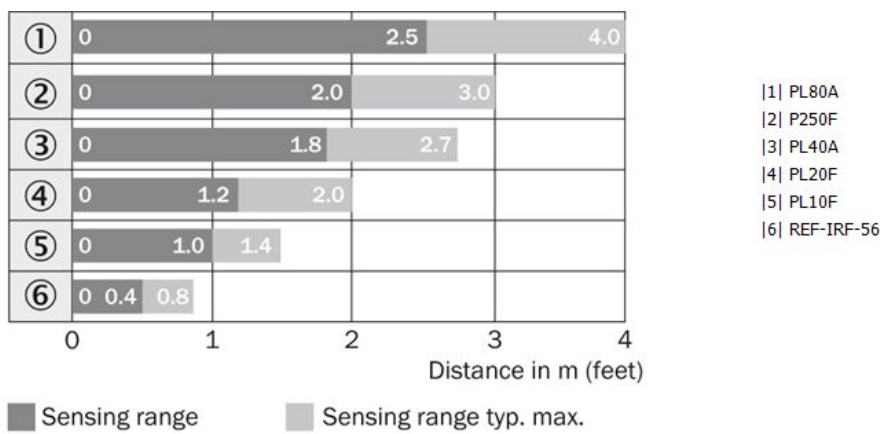
Connection diagram



Characteristic curve

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Sensing range diagram



Reflector-type

- ① PL80A
- ② PL250F
- ③ PL40A
- ④ PL20F
- ⑤ PL10F
- ⑥ REF-IRF-56

Connection type



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