



## Fotoprzełączniki W12-3, Fotoprzełącznik odbiciowy, Tłumienie tła

WTB12-3N1711



Nazwa modelu > **WTB12-3N1711**

Numer części > **1041430**



Produkt może różnić się od ilustracji

#### At a glance

- State of the art technology provides precise background suppression
- Withstands harsh environments
- PinPoint LED technology with highly visible light spot; variants available with IR LED for highly critical applications
- Rugged die-cast zinc housing, with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Flexible sensing ranges and hysteresis settings
- Key lock function, remote teach, quality monitoring
- Diagnostics messages (contamination and short-circuit)

#### Your benefits

- State of the art technology, e.g. OES3 provides precise background suppression and reliable detection of challenging objects
- High immunity to ambient light, optical reflections and crosstalk ensures fewer false readings and less downtime
- Highly visible status LEDs simplify sensing distance adjustments and reduce installation time
- A rugged metal housing withstands high-pressure cleaners and cleaning agents, reducing downtime
- Complementary outputs in one housing reduce inventory and procurement costs
- IO-Link enables quick remote diagnostics and maintenance (optional)
- Easy installation using SICK accessories



#### Cechy

|                                            |                                          |
|--------------------------------------------|------------------------------------------|
| Zasada działania czujnika/Sposób detekcji: | Fotoprzełącznik odbiciowy, Tłumienie tła |
| Wymiary (Szer. x Wys. x Głęb.):            | 15,6 mm x 48,5 mm x 42 mm                |
| Housing design (light emission):           | Prostopadłościenna                       |
| Maks. strefa działania:                    | 20 mm ... 600 mm <sup>1)</sup>           |
| Sensing range:                             | 20 mm ... 600 mm                         |
| Rodzaj światła:                            | Światło podczerwone                      |
| Nadajnik światła:                          | LED <sup>2)</sup>                        |
| Długość fali:                              | 850 nm                                   |
| Nastawa:                                   | Potencjometr, 5 obrotów                  |
| Średnica plamki świetlnej (odległość):     | 15 x 15 mm (200 mm)                      |

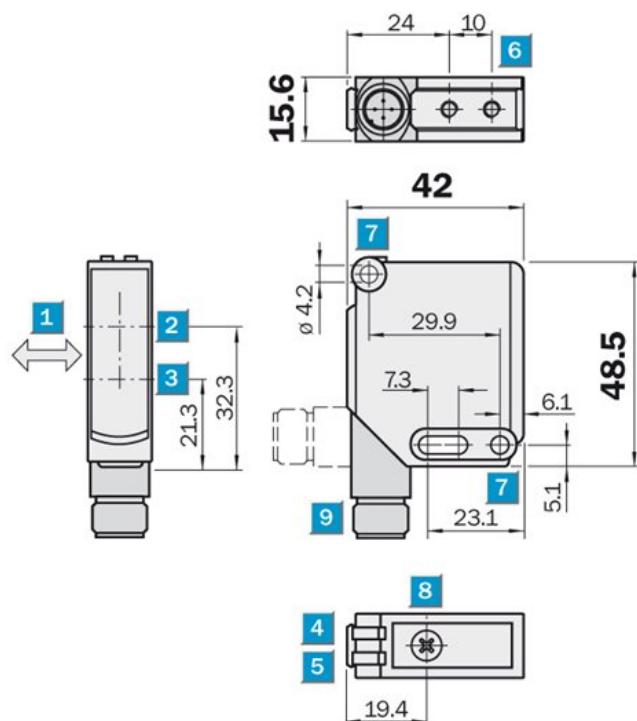
<sup>1)</sup> Obiekt odbijający 90% światła (standardowy biały zgodnie z normą DIN 5033) <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

## Mechanika/elektronika

|                                   |                                                   |
|-----------------------------------|---------------------------------------------------|
| Napięcie zasilania:               | 10 V DC ... 30 V DC <sup>1)</sup>                 |
| Tętnienia resztkowe:              | $\leq 5 \text{ Vss}$ <sup>2)</sup>                |
| Current consumption:              | $\leq 55 \text{ mA}$ <sup>3)</sup>                |
| Wyjście przełączające:            | NPN                                               |
| Tryb przełączania:                | Komplementarne                                    |
| Tryb przełączania:                | Przełączanie jasno/ciemno, wybierane              |
| Napięcie sygnału NPN HIGH/LOW:    | Approx. $V_S / < 2.5 \text{ V}$                   |
| Output current I <sub>max</sub> : | 100 mA                                            |
| Czas reakcji:                     | $\leq 330 \mu\text{s}$ <sup>4)</sup>              |
| Switching frequency:              | 1.500 Hz <sup>5)</sup>                            |
| Sposób przyłączenia:              | Cable, 4-wire, 3 m <sup>6)</sup>                  |
| Cable material:                   | PVC                                               |
| Przekrój przewodu:                | 0,25 mm <sup>2</sup>                              |
| Układ zabezpieczenia:::           | A, C, D <sup>7)</sup> <sup>8)</sup> <sup>9)</sup> |
| Klasa ochronności:                | II                                                |
| Ciężar:                           | 250 g                                             |
| Special device:                   | -                                                 |
| Tworzywo, obudowa:                | Metal                                             |
| Rodzaj zabezpieczenia:            | IP 66<br>IP 67<br>IP 69K                          |
| Ambient operating temperature:    | -40 °C ... 60 °C                                  |
| Ambient storage temperature:      | -40 °C ... 75 °C                                  |
| UL File No.:                      | NRKH.E181493 & NRKH7.E181493                      |

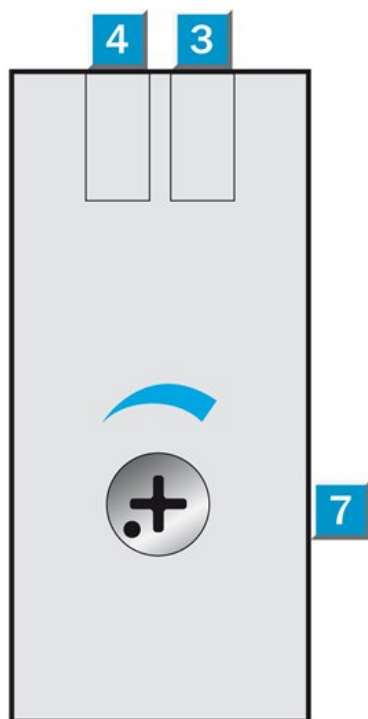
<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>3)</sup> Bez obciążenia <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> Do not bend below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

## Dimensional drawing



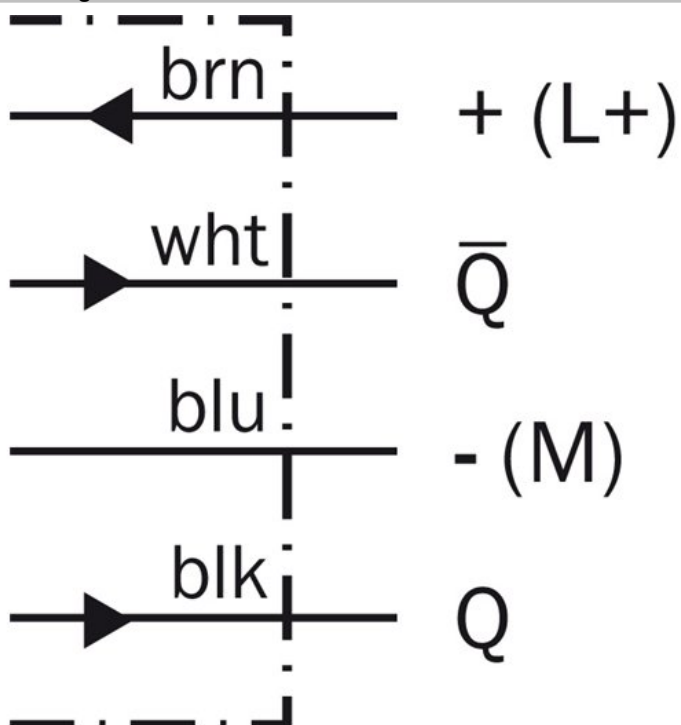
- [1] Standard direction of the material being scanned
- [2] Optical axis, receiver
- [3] Optical axis, sender
- [4] Status indicator LED green: power on
- [5] Status indicator LED, yellow: Status of received light beam
- [6] M4 threaded mounting hole, 4 mm deep
- [7] Mounting hole, Ø 4.2 mm
- [8] Sensing range adjustment: potentiometer
- [9] Connection

## Adjustments possible

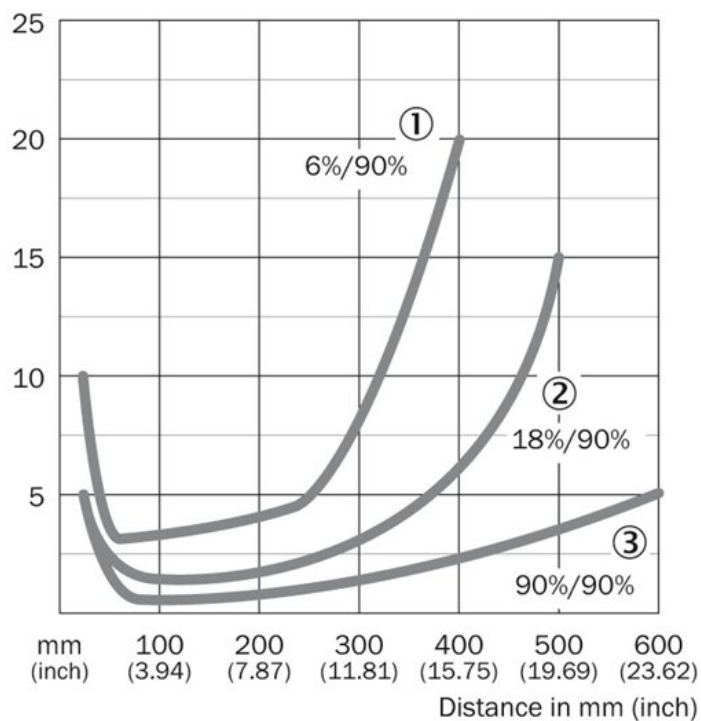


- [4] Green LED indicator: supply voltage active
- [5] LED indicator yellow: Light received
- [8] Sensing range adjustment: potentiometer

## Connection diagram

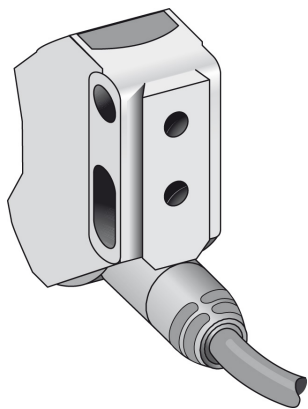


## Characteristic curve

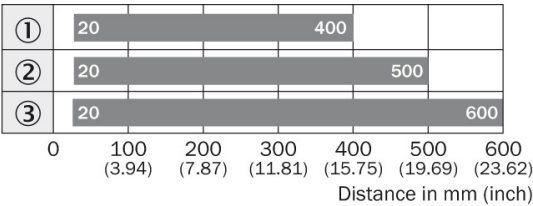


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on grey, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



- Sensing range
- ① Sensing range on black, 6 % remission
  - ② Sensing range on gray, 18 % remission
  - ③ Sensing range on white, 90 % remission

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