



## Fotoprzełączniki W24-2, Fotoprzełącznik odbiciowy, Tłumienie tła

WT24-2B220



Nazwa modelu > **WT24-2B220**

Numer części > **1017882**



Produkt może różnić się od ilustracji

#### At a glance

- Precise background suppression at ranges up to 2500 mm
- Immune to ambient light and crosstalk from another photoelectric sensor
- Switch selectable PNP or NPN output, Switch selectable Light or Dark operating mode
- Variants with DC voltage and universal AC/DC voltage with UL approval
- Optional test input, adjustable ON and OFF time delays, alarm output and front screen heating also available in high-power version
- M12 or terminal chamber connection: 90° rotatable
- Red light or long-range IR

#### Your benefits

- Metal housing that has been IP 69K tested provides reliability and a long service life
- Immune to ambient light and crosstalk, reducing sensor downtime
- Precise detection at long sensing ranges
- User interface is stored under a durable protection hood to prevent unwanted tampering and protect vital components
- Selectable output type, operating mode, and adjustable time delays makes integration easier and reduce the number of devices needed
- Variants with DC voltage and universal AC/DC voltage provide installation flexibility



#### Cechy

|                                            |                                                         |
|--------------------------------------------|---------------------------------------------------------|
| Zasada działania czujnika/Sposób detekcji: | Fotoprzełącznik odbiciowy, Tłumienie tła                |
| Wymiary (Szer. x Wys. x Głęb.):            | 27 mm x 87,5 mm x 65 mm                                 |
| Housing design (light emission):           | Prostopadłościenna                                      |
| Maks. strefa działania:                    | 100 mm ... 2.500 mm <sup>1)</sup>                       |
| Sensing range:                             | 100 mm ... 2.500 mm                                     |
| Rodzaj światła:                            | Światło podczerwone                                     |
| Nadajnik światła:                          | LED <sup>2)</sup>                                       |
| Light spot diameter (distance):            | Ø 80 mm (2.500 mm)                                      |
| Adjustment of operating distance:          | Potentiometer                                           |
| Typ czasu:                                 | Przełącznik z opóźniaczem                               |
| Czas opóźnienia:                           | Adjustable via time delay selector switch: 0,5 ... 10 s |

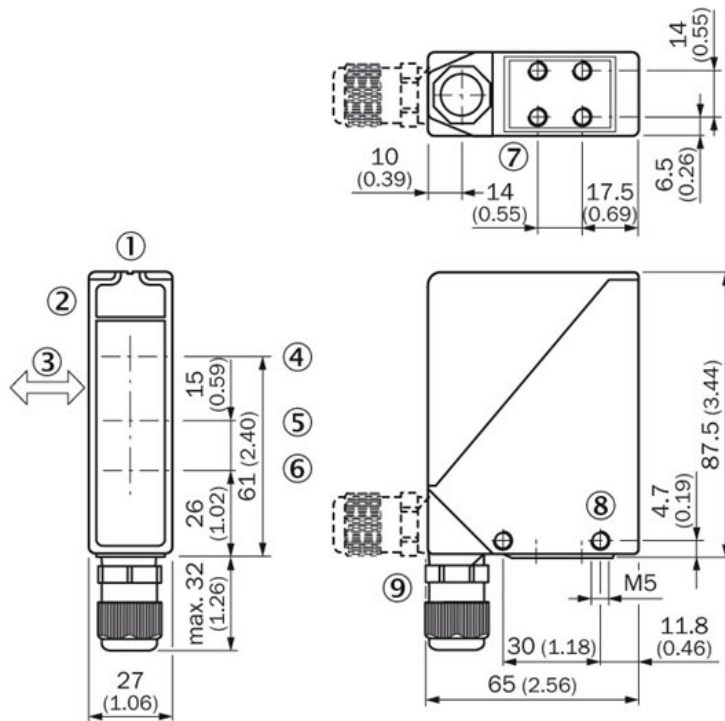
<sup>1)</sup> Obiekt odbijający 90% światła (standardowy biały zgodnie z normą DIN 5033) <sup>2)</sup> Average service life 100,000 h at Ta = +25 °C

## Mechanika/elektronika

|                                      |                                                                                                                     |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Napięcie zasilania:                  | 10 V DC ... 30 V DC <sup>1)</sup>                                                                                   |
| Tętnienia resztkowe:                 | < 5 Vss <sup>2)</sup>                                                                                               |
| Pobór prądu:                         | ≤ 70 mA <sup>3)</sup>                                                                                               |
| Wyjście przełączające:               | NPN, przełączanie jasno/ciemno, wybierane, selectable via NPN/PNP selector, PNP, selectable via light/dark selector |
| Switching mode selector:             | Selectable via light/dark selector, Selectable via NPN/PNP selector                                                 |
| Output current I <sub>max</sub> :    | 100 mA                                                                                                              |
| Czas reakcji:                        | ≤ 500 μs <sup>4)</sup>                                                                                              |
| Switching frequency:                 | 1.000 Hz <sup>5)</sup>                                                                                              |
| Sposób przyłączenia:                 | Terminal connection with M16 gland <sup>6)</sup>                                                                    |
| Układ zabezpieczenia:::              | A, C, D <sup>7) 8) 9)</sup>                                                                                         |
| Klasa ochronności:                   | II <sup>10)</sup>                                                                                                   |
| Ciężar:                              | 330 g                                                                                                               |
| Ogrzewanie przedniej szyby:          | ✓                                                                                                                   |
| Tworzywo, obudowa:                   | Cynkowa, odlewana                                                                                                   |
| Tworzywo, układ optyczny:            | PMMA                                                                                                                |
| Rodzaj zabezpieczenia:               | IP 69K                                                                                                              |
| Wejście testowe, nadajnik wyłączony: | TE to 0 V                                                                                                           |
| Ambient operating temperature:       | -40 °C ... 60 °C                                                                                                    |
| Ambient storage temperature:         | -40 °C ... 75 °C                                                                                                    |

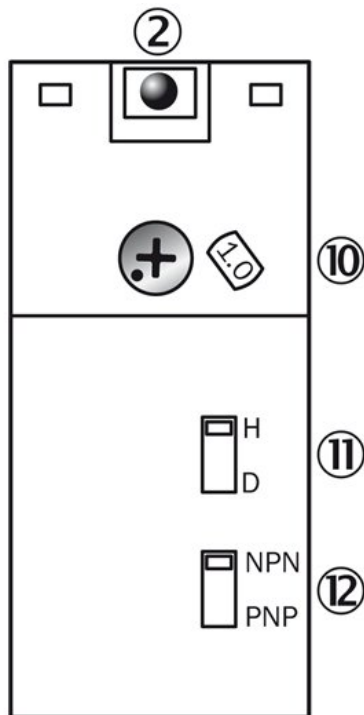
<sup>1)</sup> Limit values <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> Connection rotatable by 90° <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected <sup>8)</sup> C = interference suppression <sup>9)</sup> D = outputs overcurrent and short-circuit protected <sup>10)</sup> Reference voltage 50 V DC

## Dimensional drawing



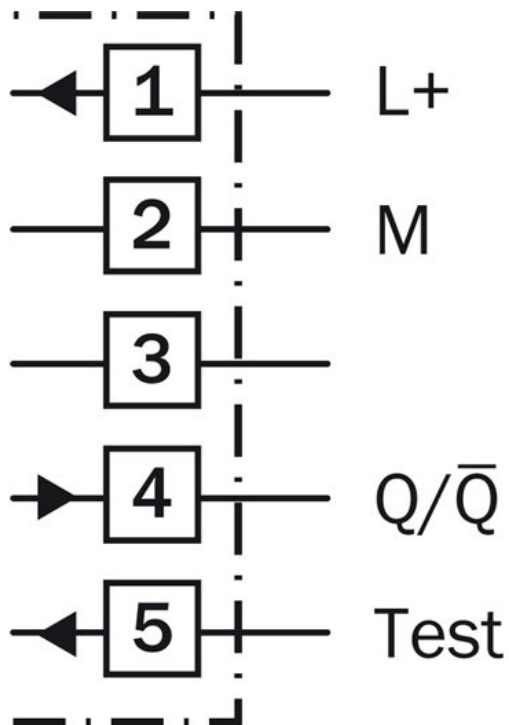
- |1| Alignment sight
- |2| LED signal strength indicator
- |3| Standard direction of the material being scanned
- |4| Center of optical axis, sender
- |5| Centre of optical axis, receiver (close range)
- |6| Centre of optical axis, receiver (far range)
- |7| M5 threaded mounting hole, 6 mm deep
- |8| M5 threaded mounting hole, through-hole
- |9| M16 screw fixing and plug rotatable by 90°

## Adjustments possible

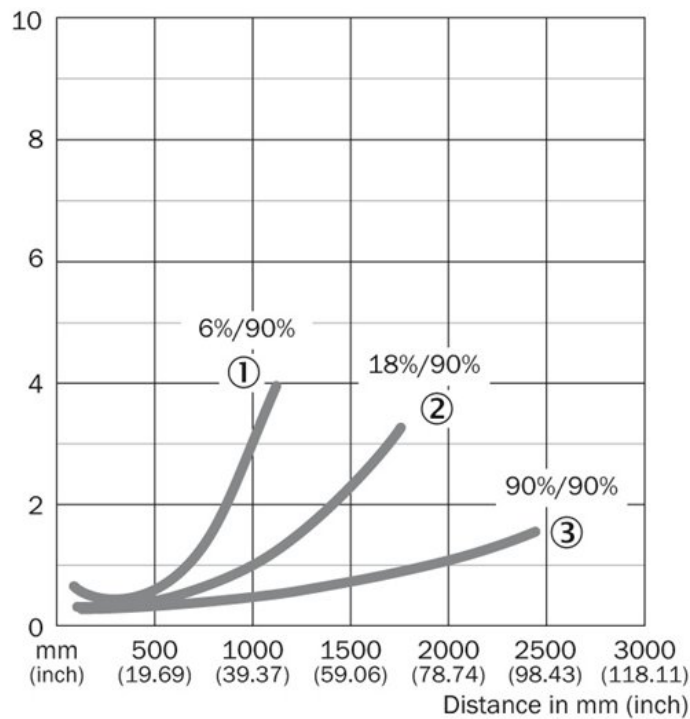


- |2| LED signal strength indicator
- |10| Sensing distance adjustment
- |11| Light/dark selector
- |12| NPN/ PNP selector

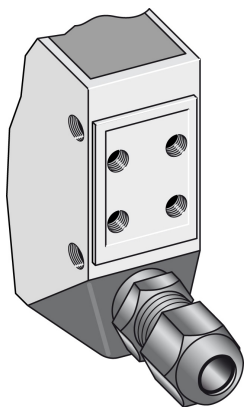
Connection diagram



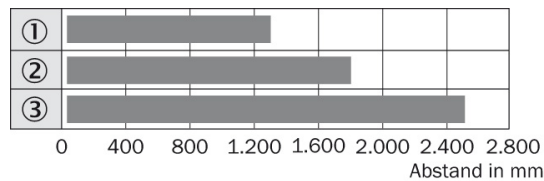
Characteristic curve



Connection type



Sensing range diagram



- Betriebstastweite
- ① Tastbereich auf Schwarz, 6 % Remission
  - ② Tastbereich auf Grau, 18 % Remission
  - ③ Tastbereich auf Weiß, 90 % Remission

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