



Fotoprzełączniki W24-2, Fotoprzełącznik odbiciowy, Tłumienie tła

WT24-2B420S14



Nazwa modelu > **WT24-2B420S14**

Numer części > **1023363**



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 ... 3.000 mm ¹⁾
Sensing range:	100 mm ... 3.000 mm
Rodzaj światła:	Światło podczerwone
Nadajnik światła:	LED ²⁾
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: 0,6 ... 1,3 s

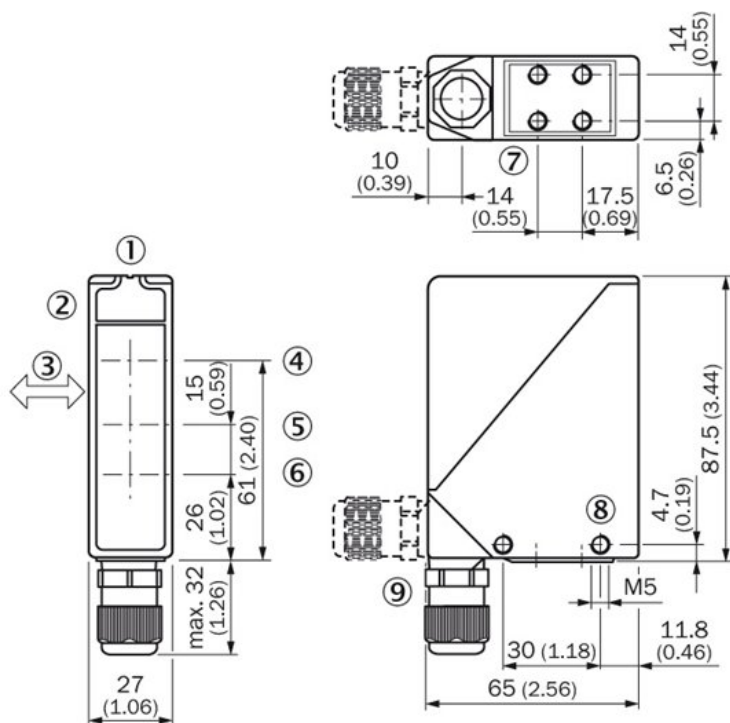
¹⁾ Obiekt odbijający 90% światła (standardowy biały zgodnie z normą DIN 5033) ²⁾ Average service life 100,000 h at Ta = +25 °C

Mechanika/elektronika

Napięcie zasilania:	10 V DC ... 30 V DC ¹⁾
Tętnienia resztkowe:	< 5 Vss ²⁾
Pobór prądu:	≤ 50 mA ³⁾
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 _{max} :	100 mA
Czas reakcji:	≤ 500 μs ⁴⁾
Switching frequency:	1.000 Hz ⁵⁾
Sposób przyłączenia:	Connector M12, 4-pin ⁶⁾
Układ zabezpieczenia:::	A, C, D ^{7) 8) 9)}
Klasa ochronności:	II ¹⁰⁾
Ciężar:	350 g
Special device:	✓
Tworzywo, obudowa:	Cynkowa, odlewana
Tworzywo, układ optyczny:	Szkło
Rodzaj zabezpieczenia:	IP 67
Funkcje specjalne:	Front lense made of glass, Sensing distance: preset 2300 mm (90 % reflectance)
Wejście testowe, nadajnik wyłączony:	TE to 0 V
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C

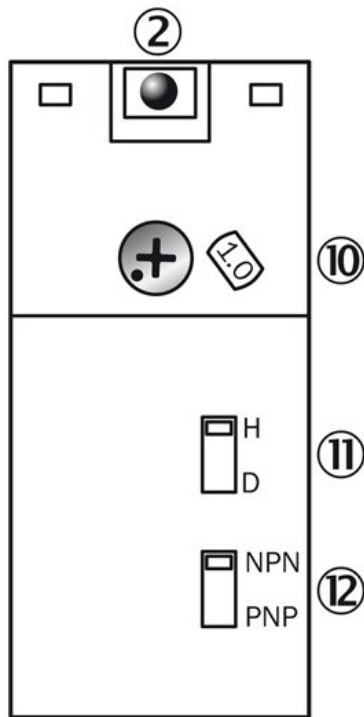
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Connection rotatable by 90° ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D = outputs overcurrent and short-circuit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

Dimensional drawing



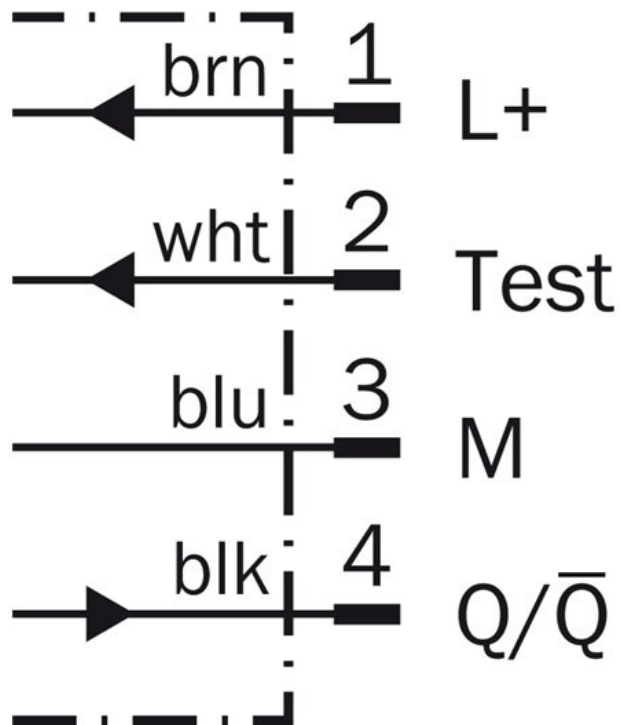
- |1| Alignment sight
- |2| LED signal strength indicator
- |3| Standard direction of the material being scanned
- |4| Center of optical axis, sender
- |5| Centre of optical axis, receiver (close range)
- |6| Centre of optical axis, receiver (far range)
- |7| M5 threaded mounting hole, 6 mm deep
- |8|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

Adjustments possible

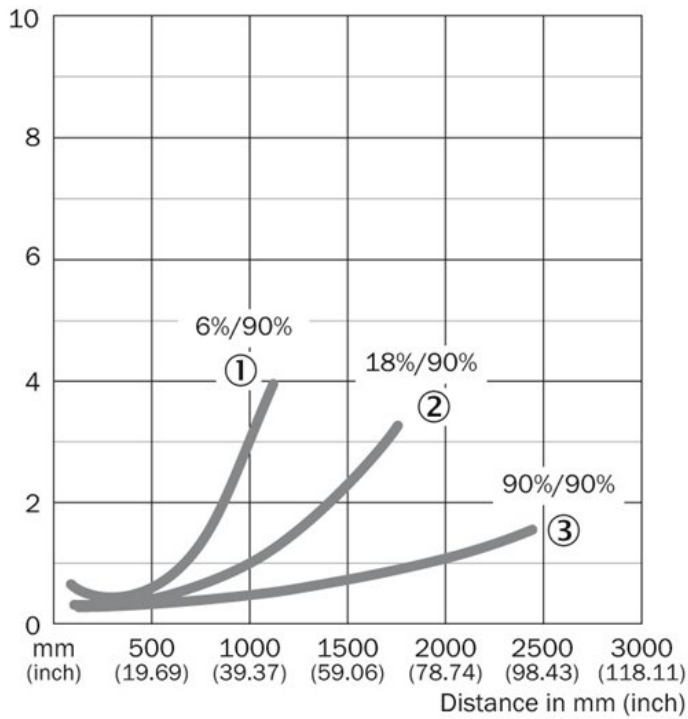


- |2| LED signal strength indicator
- |10| Sensing distance adjustment
- |11| Light/dark selector
- |12| NPN/ PNP selector

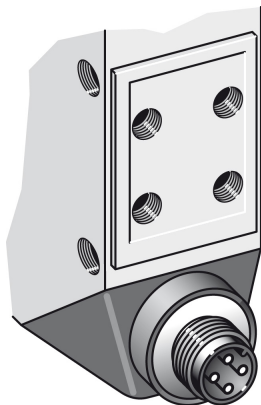
Connection diagram



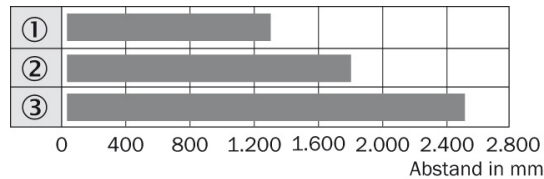
Characteristic curve



Connection type



Sensing range diagram



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

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