



Photoelectric sensors W12-3, Photoelectric proximity sensor, Background suppression

WTB12C-3P2432A91



Model Name > **WTB12C-3P2432A91**
Part No. > **1060222**



Illustration may differ

At a glance

- State of the art technology provides precise background suppression
- Withstands harsh environments
- PinPoint LED technology with highly visible light spot
- Rugged die-cast zinc housing
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link
- Programmable functions as debouncing and time-measurement are included

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
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission):	Rectangular
Sensing range max.:	20 mm ... 350 mm ¹⁾
Sensing range:	20 mm ... 350 mm
Type of light:	Visible red light
Light source:	LED ²⁾
Wave length:	660 nm
Teach-in:	Single teach-in button
Adjustment:	Teach-in cable
Light spot size (distance):	15 x 15 mm (200 mm)
IO-Link functions:	Advanced functions, Standard functions
IO-Link advanced functions:	Decentralized debouncing, Time stamp

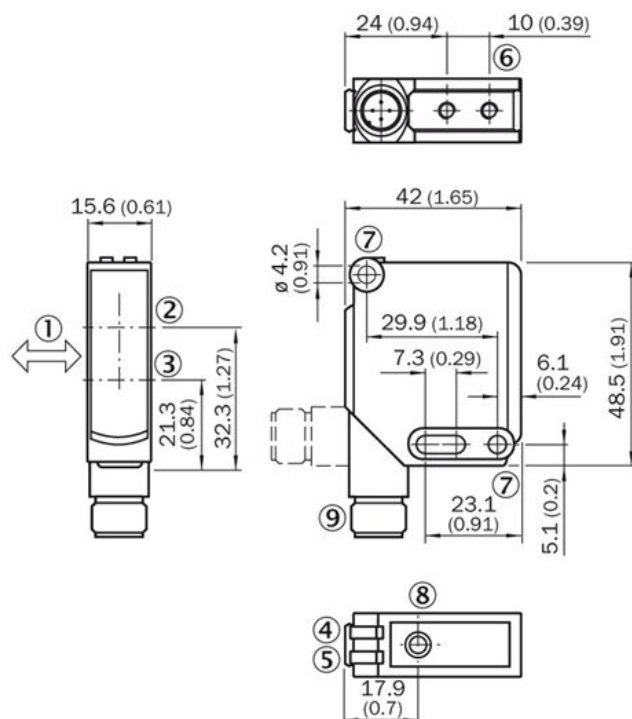
¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	$\leq 5 \text{ Vpp}$ ²⁾
Power consumption:	$\leq 30 \text{ mA}$ ³⁾
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark-switching
Signal voltage PNP HIGH/LOW:	$> U_v - 2,5 \text{ V} / \text{ca. } 0 \text{ V}$
Output current I _{max} :	100 mA
Response time:	$\leq 330 \mu\text{s}$ ⁴⁾
Switching frequency:	$\pm 1,500 \text{ Hz}$ ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	II
Weight:	120 g
IO-Link:	✓
Special device:	-
Housing material:	Metal
Enclosure rating:	IP 66 IP 67
Description:	IO-Link, 2 Bit Processdata length Q and VMA, COM2, 2.3 ms, SIO Mode
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

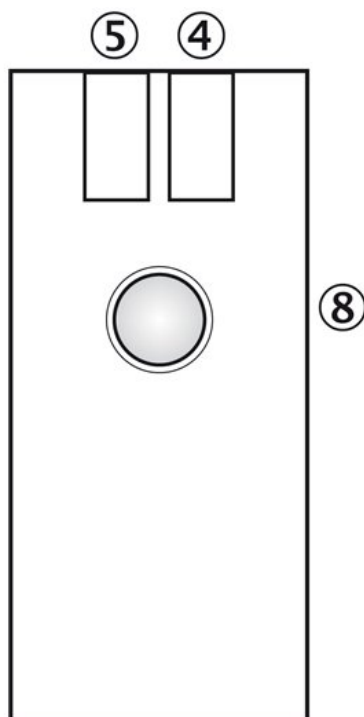
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



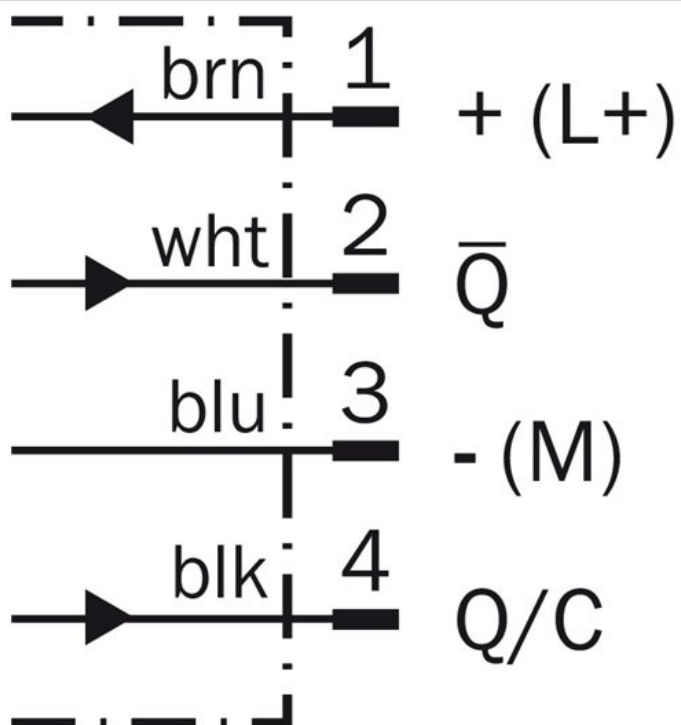
- [1] Standard direction of the material being scanned
- [2] Optical axis, receiver
- [3] Optical axis, sender
- [4] Green LED indicator: supply voltage active
- [5] LED indicator yellow: Light received
- [6] M4 threaded mounting hole, 4 mm deep
- [7] Mounting hole, Ø 4.2 mm
- [8] Adjustment sensing range: single teach button
- [9] Connection

Adjustments possible

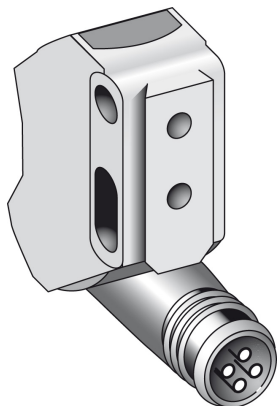


- [4] Status indicator LED green: power on
- [5] Status indicator LED, yellow: Status of received light beam
- [8] Adjustment sensing range: single teach button

Connection diagram



Connection type



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