



Photoelectric sensors
W15, Photoelectric proximity sensor, energetic

WTE15-B2411



Model Name > [WTE15-B2411](#)
Part No. > [1043317](#)



Illustration may differ

At a glance

- Energetic photoelectric sensor in hybrid design with 350 mm sensing distance
- M18 front mount using plastic nut or snap ring, side assembly with 24.1 mm through holes
- Flush mounting possible using the snap ring
- Transparent back cover
- IR LED emitter

Your benefits

- Compatible with many competitor models, making it easy to install and commission
- Flush mounting reduces setup time and prevents obstructions to material flow on conveyor sections
- Clearly visible LED indicators reduce setup time and simplify troubleshooting
- IR LED emitter provides a long sensing range



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	16.2 mm x 48.5 mm x 31.9 mm
Housing design (light emission):	Hybrid
Thread diameter (housing):	M18 x 1
Sensing range max.:	10 mm ... 350 mm ¹⁾
Sensing range:	10 mm ... 250 mm
Type of light:	Infrared light
Light source:	LED ²⁾
Wave length:	950 nm
Angle of dispersion:	4.5 °
Light spot size (distance):	Ø 50 mm (350 mm)

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

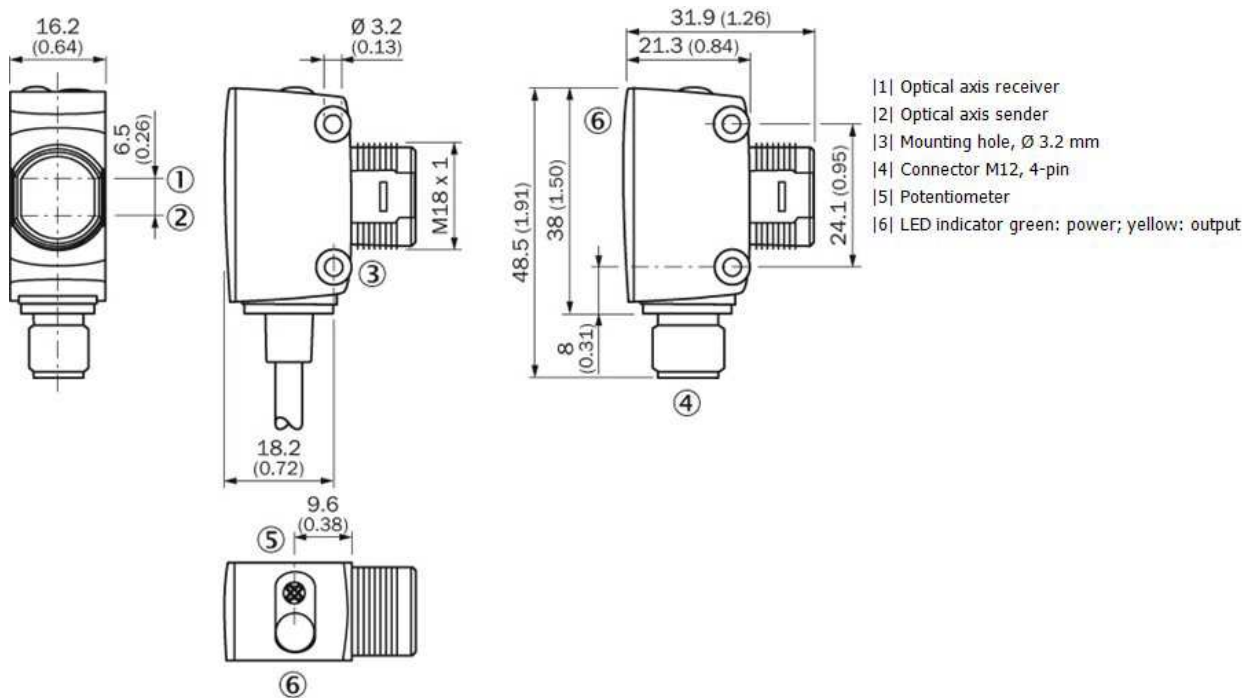
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 V _{pp} ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	NPN, PNP
Switching mode:	Light switching

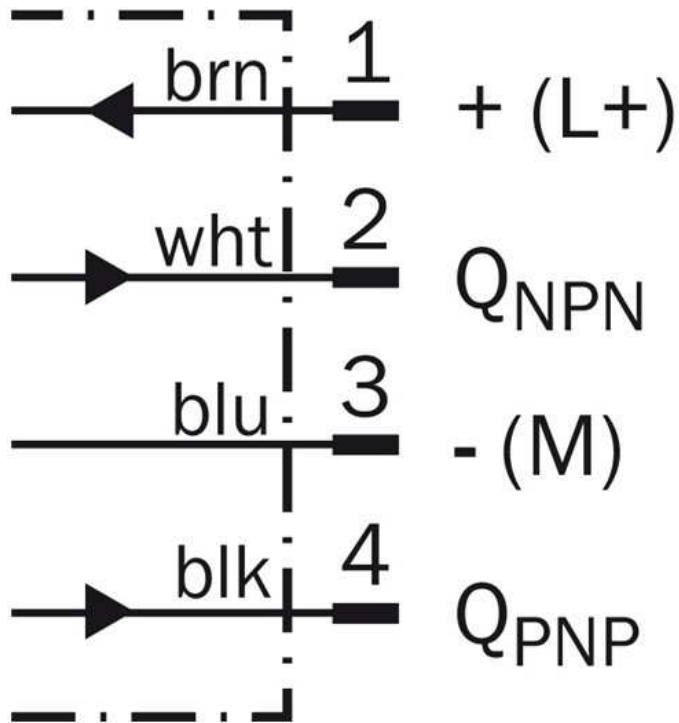
Output current I _{max} ..:	≤ 100 mA
Response time:	≤ 1.25 ms ⁴⁾
Switching frequency:	400 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, D ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	II ⁹⁾
Weight:	10 g
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Snap-ring and M18 nut
Ambient operating temperature:	-25 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383
Housing material:	ABS, Plastic

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⁾ B = inputs and output reverse-polarity protected ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ Reference voltage: 50 V DC

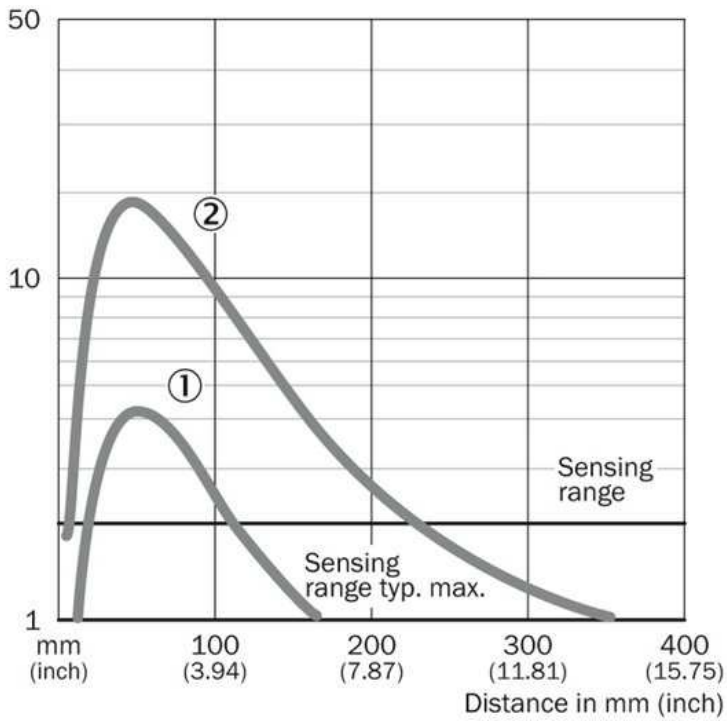
Dimensional drawing



Connection diagram

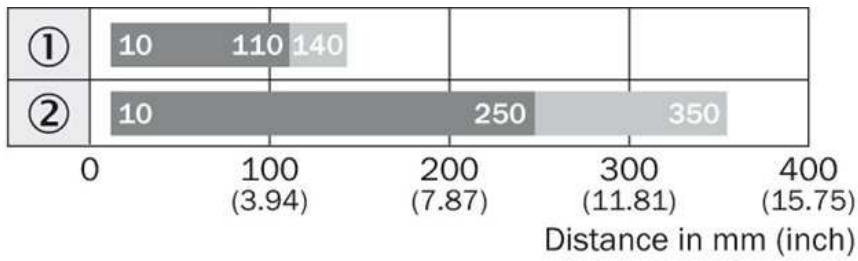


Characteristic curve



- |1| Sensing range on gray, 18 % remission
- |2| Sensing range on white, 90 % remission

Sensing range diagram

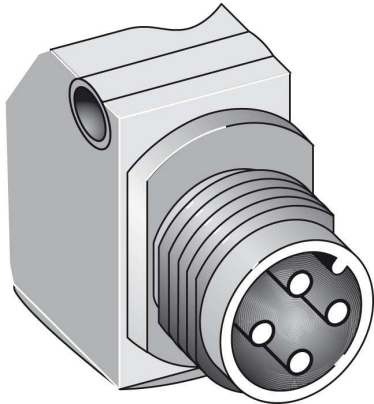


|1| Sensing range on gray, 18 % remission
|2| Sensing range on white, 90 % remission

■ Sensing range ■ Sensing range typ. max.

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

Connection type



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