



Photoelectric sensors
W15, Photoelectric proximity sensor, energetic

WTE15-N1111



Model Name > [WTE15-N1111](#)
Part No. > [1046147](#)



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

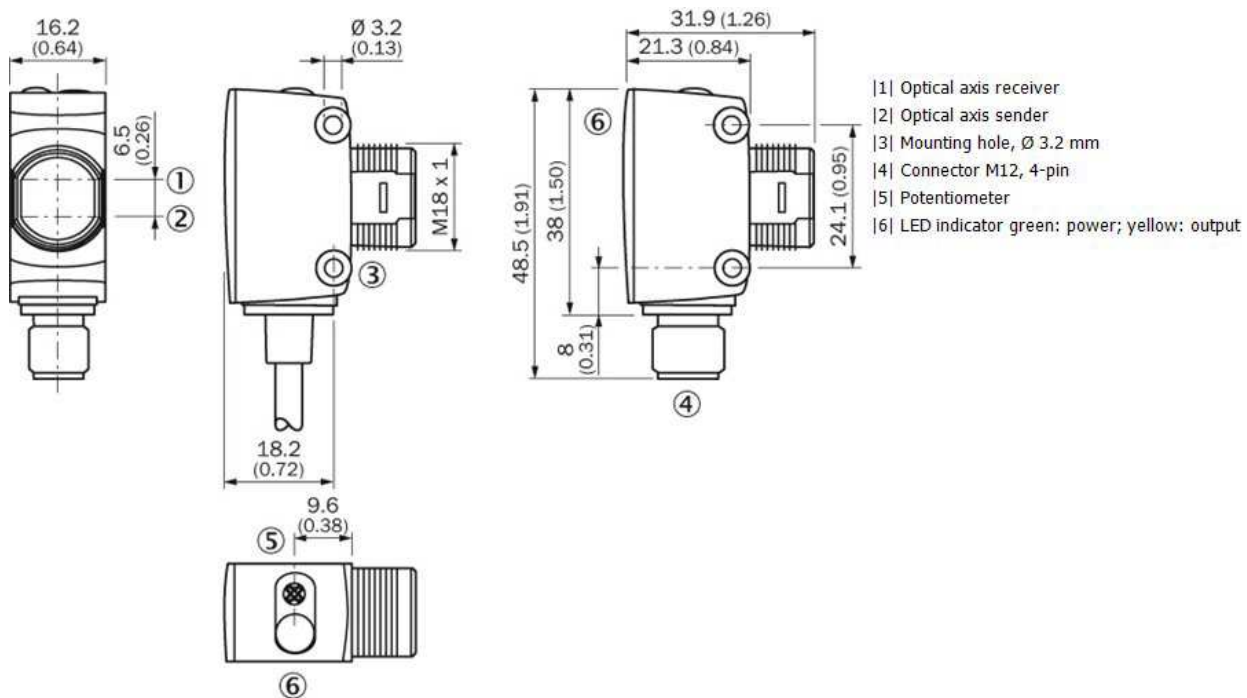
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 V _{pp} ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	NPN
Output function:	Complementary

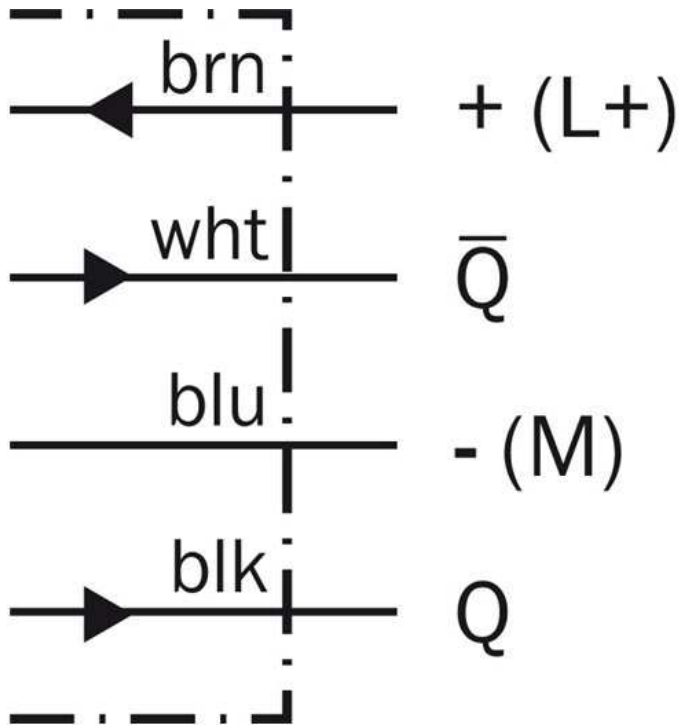
Switching mode:	Light/dark switching
Output current I _{max} ..:	≤ 100 mA
Response time:	≤ 1.25 ms ⁴⁾
Switching frequency:	400 Hz ⁵⁾
Connection type:	Cable, 4-wire, 2 m ⁶⁾
Cable material:	PUR
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, D ^{7) 8) 9)}
Protection class:	II ¹⁰⁾
Weight:	20 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) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) D = outputs overcurrent and short-circuit protected 10) Reference voltage: 50 V DC

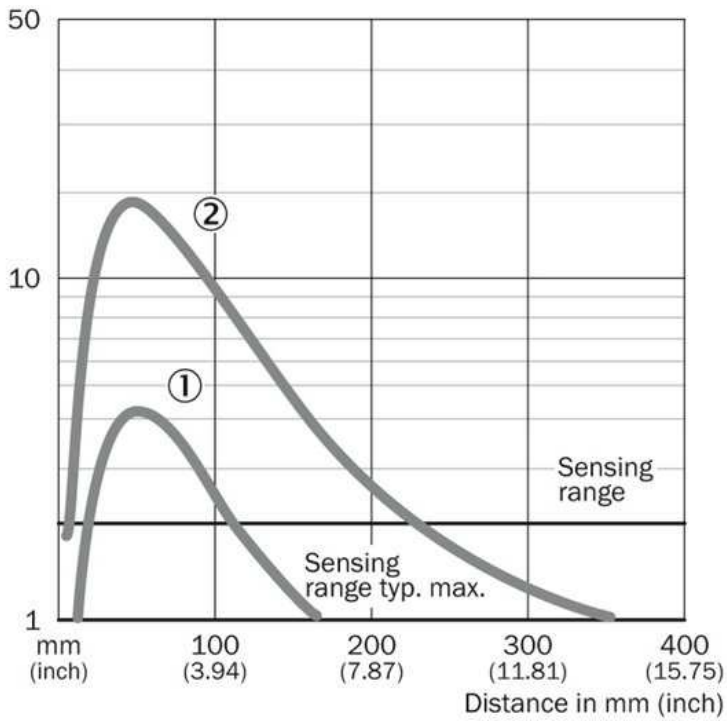
Dimensional drawing



Connection diagram

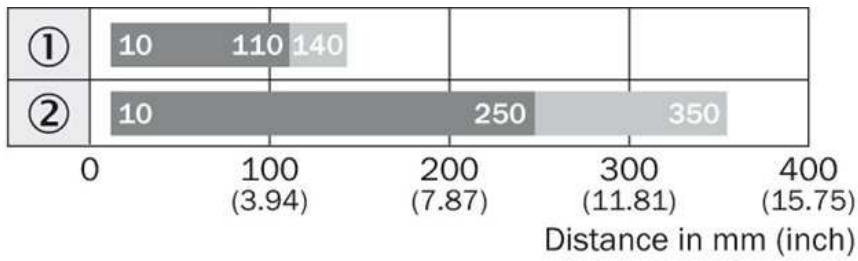


Characteristic curve



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

Sensing range diagram

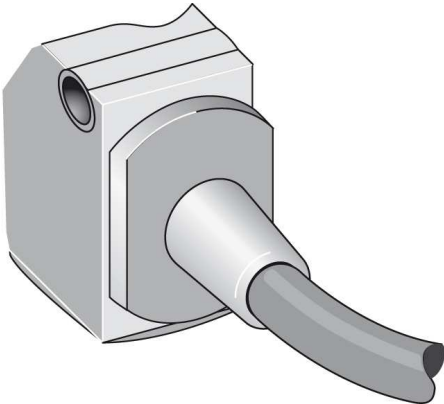


|1| Sensing range on gray, 18 % remission
|2| Sensing range on white, 90 % remission

■ 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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