



Photoelectric sensors
W14-2, Photoelectric proximity sensor, energetic

WT14-2N111



Model Name > [WT14-2N111](#)
Part No. > [1026060](#)



Illustration may differ

At a glance

- Emitter LED with infrared light
- Energetic photoelectric proximity sensor
- Teach-in
- Rugged plastic housing

Your benefits

- Quick and easy sensing range adjustment due to 4-speed potentiometer
- Crosstalk and ambient light immunity reduces false trips and downtime
- High availability in the field



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	17.6 mm x 75.5 mm x 33.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	50 mm ... 1,500 mm ¹⁾
Sensing range:	300 mm ... 1,500 mm ²⁾
Type of light:	Infrared light
Light source:	LED ³⁾
Wave length:	870 nm
Teach-in:	Single teach-in button
Adjustment:	Teach-in
Light spot size (distance):	Ø 56 mm (1,000 mm)

^{1) 2)} Object with 90 % reflectance (referred to standard white DIN 5033) ³⁾ Average service life of 100,000 h at T_A = +25 °C

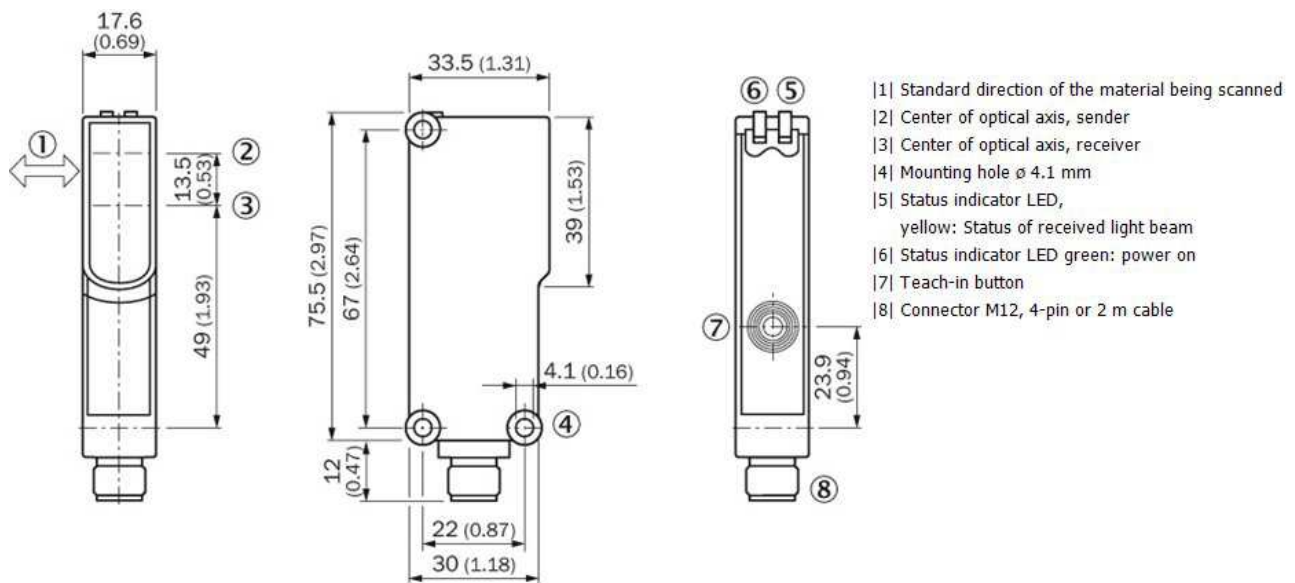
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 55 mA ²⁾
Output type:	NPN
Output function:	Complementary
Switching mode:	Light/dark switching
Output current I _{max.} :	≤ 100 mA
Response time:	≤ 2.5 ms ³⁾
Switching frequency:	200 Hz ⁴⁾
Connection type:	Cable, 4-wire, 2 m ⁵⁾
Cable material:	PVC

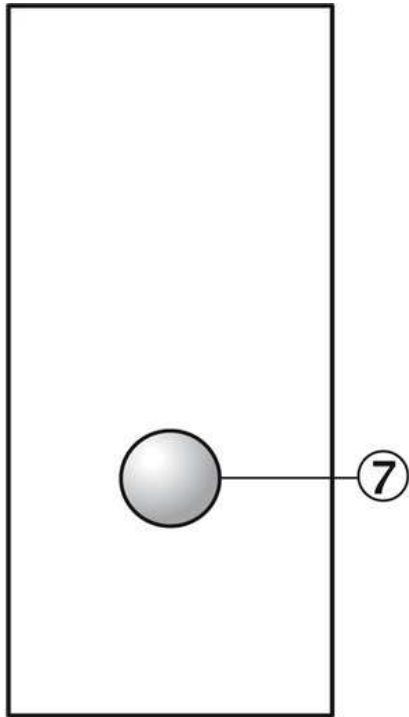
Circuit protection:: A, C, D ^{6) 7) 8)}
 Weight: 120 g
 Housing material: ABS, Plastic
 Optics material: PMMA
 Enclosure rating: IP 67
 Ambient operating temperature: -25 °C ... 60 °C
 Ambient storage temperature: -40 °C ... 70 °C
 UL File No.: NRKH.E181493 & NRKH7.E181493

1) Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ Signal transit time with resistive load ⁴⁾ With light/dark ratio 1:1 ⁵⁾ Do not bend below 0 °C ⁶⁾ A = V connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

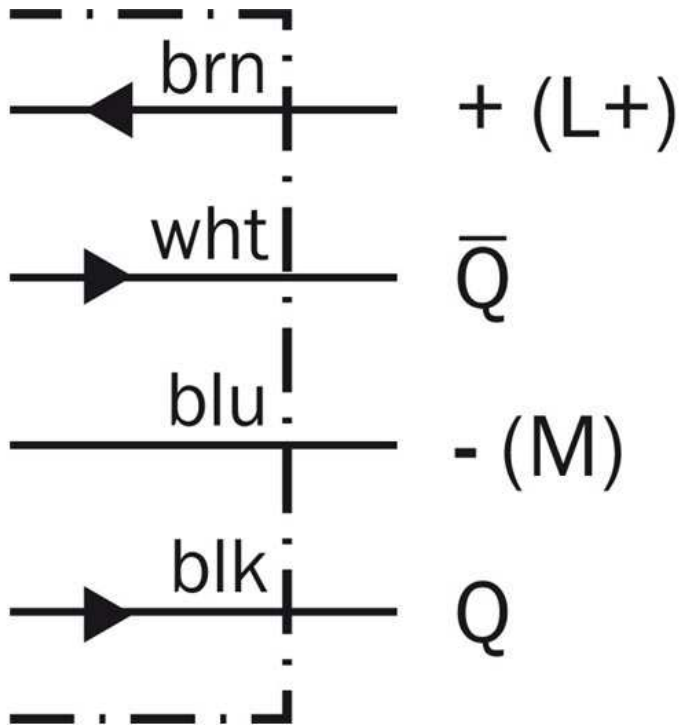


Adjustments possible

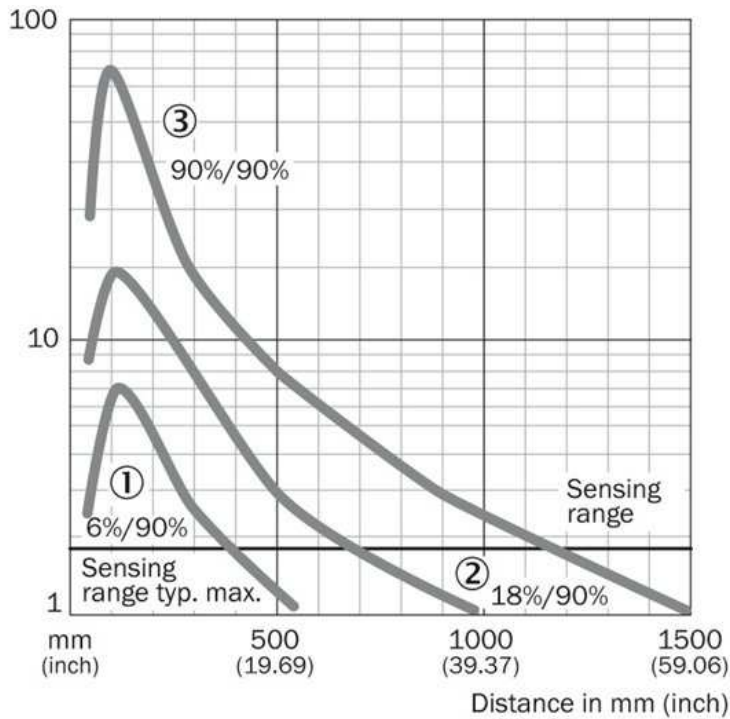


|1| Teach-in button

Connection diagram

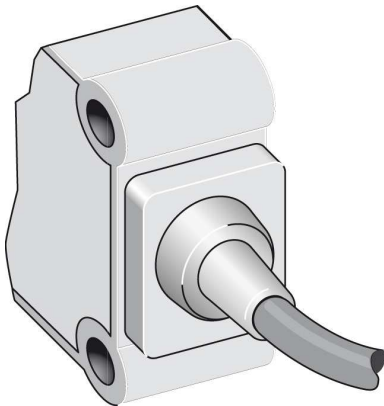


Characteristic curve

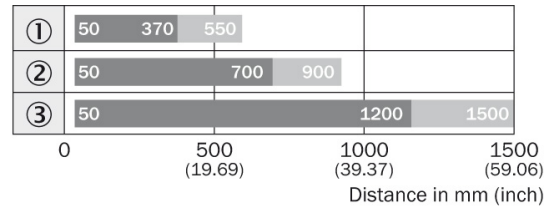


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on grey, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



■ Sensing range ■ Sensing range typ. max.

- ① Sensing range on black, 6 % remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90 % remission

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