



Photoelectric sensors W14-2, Photoelectric proximity sensor, energetic

WT14-2P411



Model Name > **WT14-2P411**
Part No. > **1026059**



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

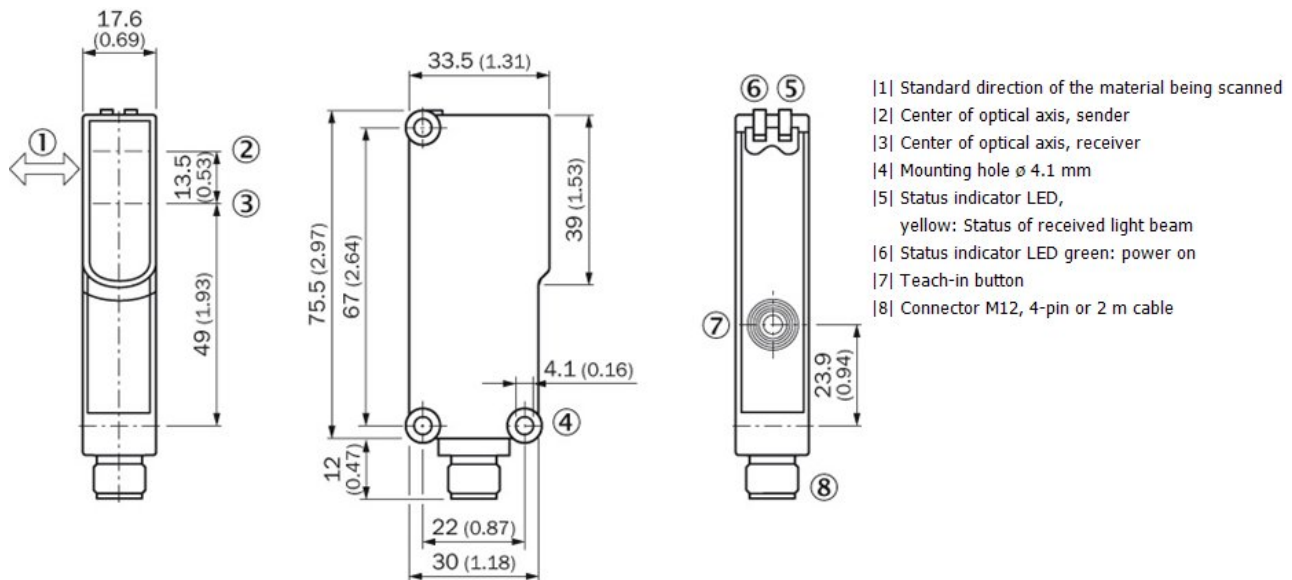
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 55 mA ²⁾
Output type:	PNP
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:	Connector M12, 4-pin
Circuit protection:::	A, C, D ^{5) 6) 7)}

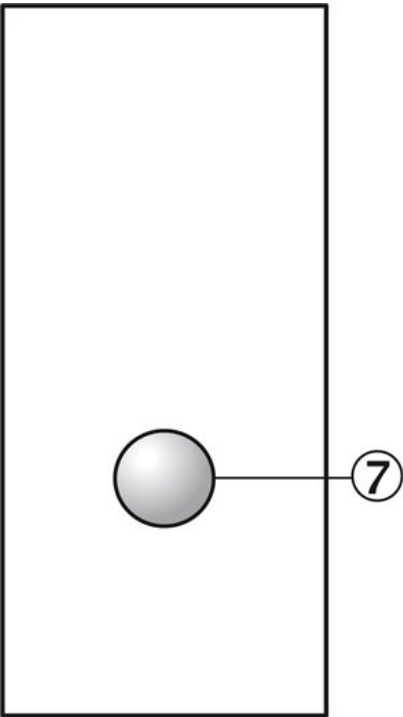
Weight: 40 g
 Housing material: ABS, Plastic
 Optics material: PMMA
 Enclosure rating: IP 67
 Ambient operating temperature: -25 °C ... 60 °C
 Ambient storage temperature: -40 °C ... 70 °C
 UL File No.: NRKH.E181493 & NRKH7.E181493

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⁾ $A = V_S$
 connections reverse-polarity protected ⁶⁾ C = interference suppression ⁷⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

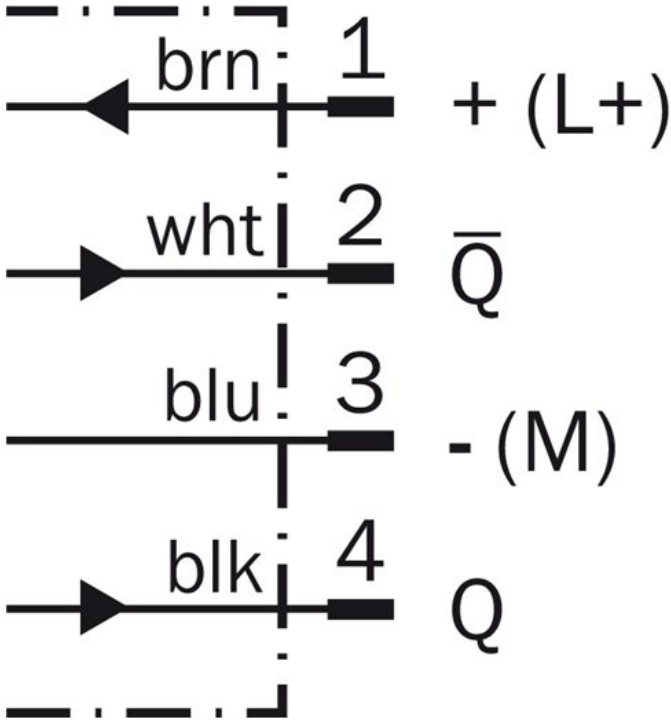


Adjustments possible

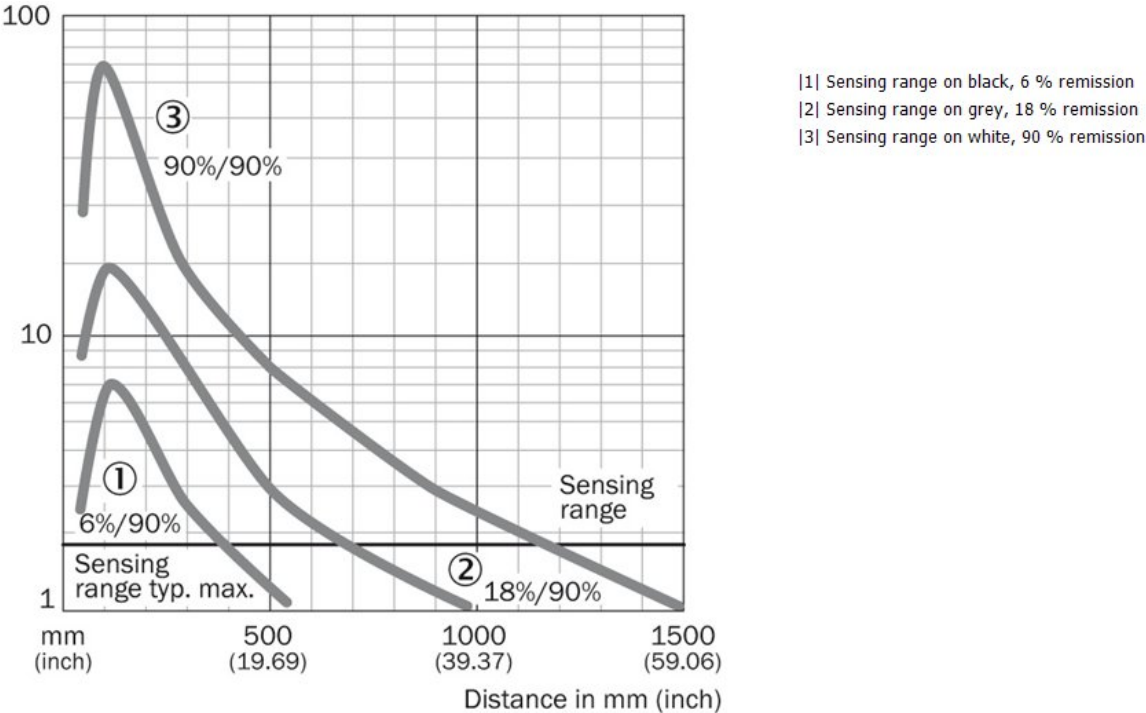


[1] Teach-in button

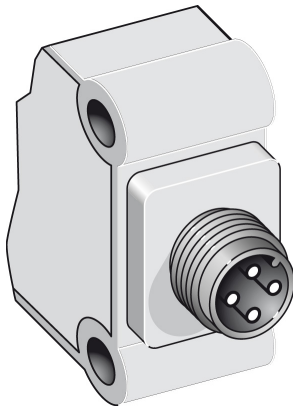
Connection diagram



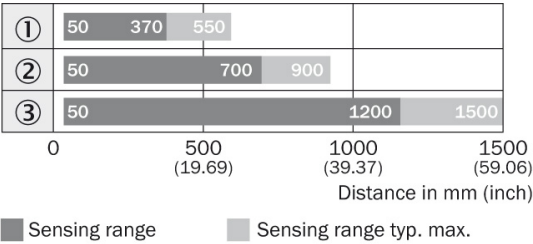
Characteristic curve



Connection type



Sensing range diagram



- 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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