



Photoelectric sensors
W14-2, Through-beam photoelectric sensor

WS/WE14-2P410S01



Model Name > [WS/WE14-2P410S01](#)
Part No. > [1044850](#)



Illustration may differ

At a glance

- High operational reliability
- Test input for system diagnostics
- Rugged plastic housing

Your benefits

- Very high operating reserves for trouble-free operation, even at long distances
- Reliable operation due to integrated system diagnostics
- High availability in the field



Features

Sensor/detection principle:	Through-beam photoelectric sensor
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.:	0 m ... 20 m
Sensing range:	0 m ... 15 m
Type of light:	Infrared light
Light source:	LED ¹⁾
Wave length:	645 nm
Adjustment:	Potentiometer, 1 turn
Light spot size (distance):	Ø 950 mm (15 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

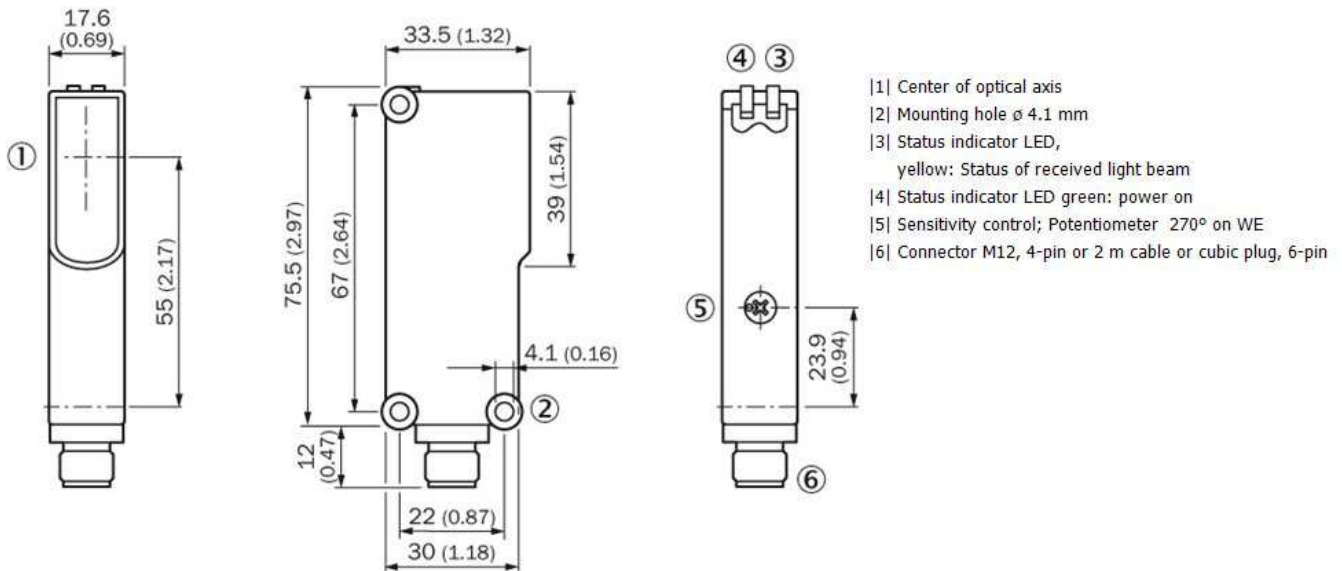
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	5 V _{pp} ²⁾
Power consumption, sender:	45 mA ³⁾
Power consumption, receiver:	35 mA ⁴⁾
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Output current I _{max.} :	≤ 100 mA ⁵⁾
Response time:	≤ 0.5 ms ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ^{7) 8) 9)}

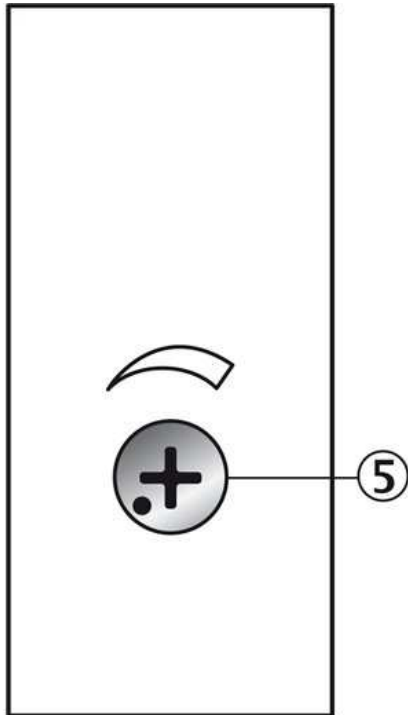
Weight: 40 g
 Special device: ✓
 Housing material: ABS, Plastic
 Optics material: PMMA
 Enclosure rating: IP 67
 Ambient operating temperature: -40 °C ... +60 °C
 Ambient storage temperature: -40 °C ... +75 °C
 Part number of individual components: Receiver, WE14-2P410S01, 2044169, Sender, WS14-2D410S01, 2044165
 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) 4) Without load 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) $A = V_S$ connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

Dimensional drawing



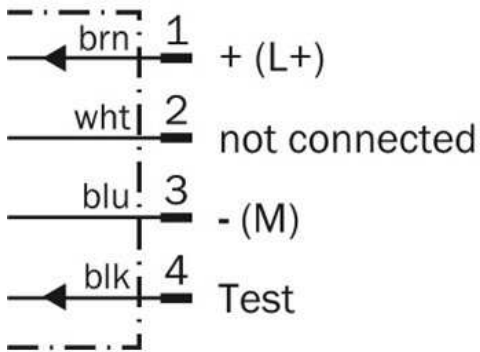
Adjustments possible



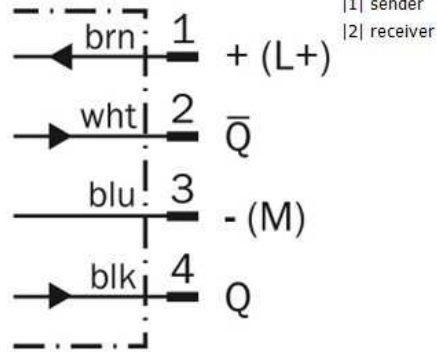
|5| Sensitivity control; Potentiometer 270°

Connection diagram

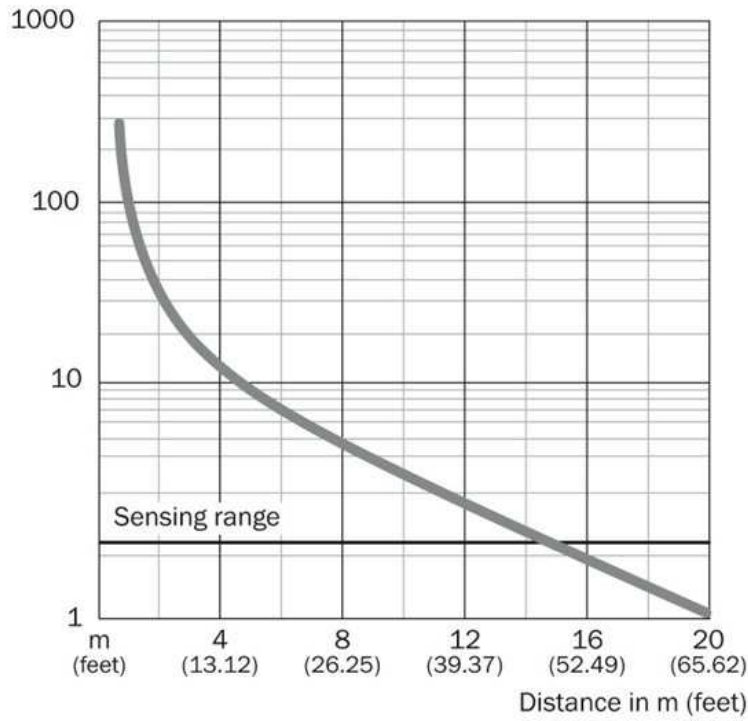
①



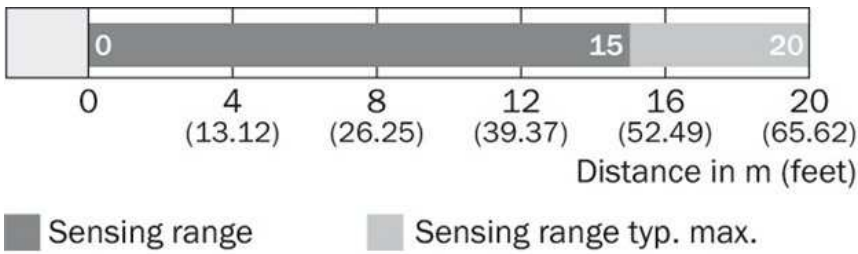
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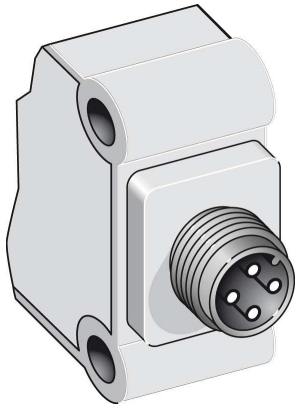
Characteristic curve



Sensing range diagram



Connection type



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