



Photoelectric sensors
W2 Flat, Through-beam photoelectric sensor

WS/WE2F-P110



Type > [WS/WE2F-P110](#)
Part No. > [6049355](#)



Illustration may differ

At a glance

- Maximum sensing range of 500 mm
- Rugged housing with metal sleeves for 2 mm fixing screws included with delivery
- 0.5 ms response time
- IP 67 enclosure rating
- Red light

Your benefits

- A very fast response time offers application flexibility for efficient machines with short or fast cycle times
- Smart, optimal design fits into small spaces, providing increased application flexibility



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	12 mm x 20 mm x 3.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 0.5 m
Sensing range:	0 m ... 0.4 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Wave length:	660 nm
Focus adjustable:	-
Light spot size (distance):	X Ø 10 mm (100 mm)

¹⁾ Average service life: 100,000 h at T_U = +25 °C

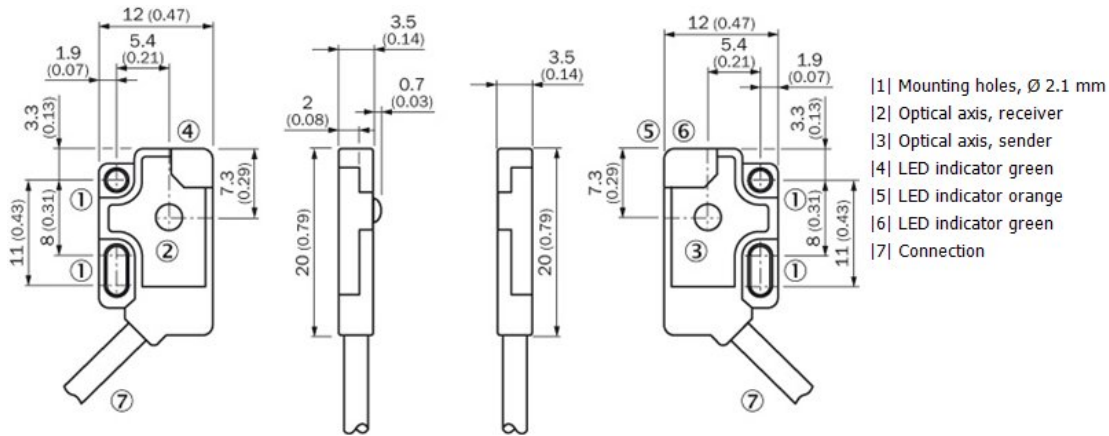
Mechanics/electronics

Supply voltage:	12 V DC ... 24 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Output type:	PNP
Switching mode:	Light switching
Output current I _{max.} :	≤ 50 mA
Response time:	≤ 0.5 ms ³⁾
Switching frequency:	1,000 Hz ⁴⁾
Connection type:	Cable, 3-wire, 2 m ⁵⁾
Cable material:	PVC

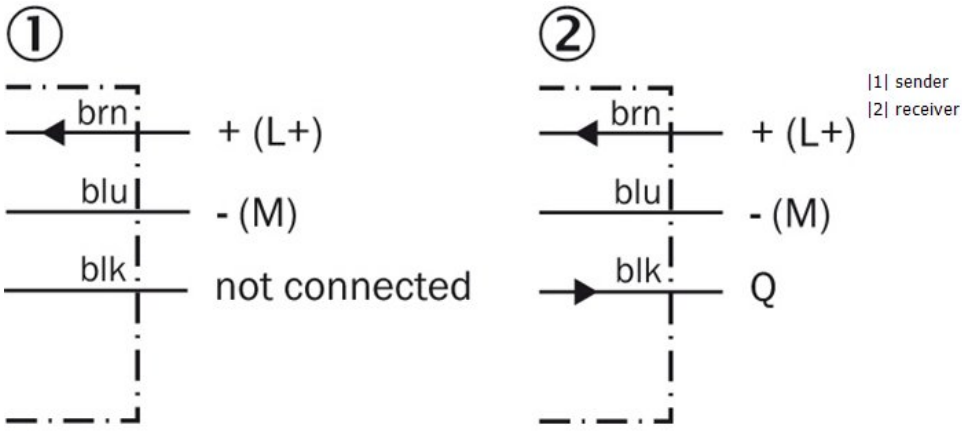
Cable diameter:	Ø 2.4 mm
Circuit protection:::	A, C, D ^{6) 7) 8)}
Weight:	20 g
Polarisation filter:	-
Special device:	-
Reverse polarity protection:	✓
Short-circuit protection:	✓
Optics material:	PC
Enclosure rating:	IP 67
Ambient operating temperature:	-20 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +75 °C
Signal voltage PNP HIGH/LOW:	Approx. VS - 1.8 V/0 V
Signal voltage NPN HIGH/LOW:	Approx. VS/< 1.8 V
Housing material:	Plastic, PC

1) ± 10 % 2) May not exceed or fall below U_v tolerances 3) Signal transit time with resistive load 4) With light/dark ratio 1:1 5) Do not bend below 0 °C 6) A = V_S
connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

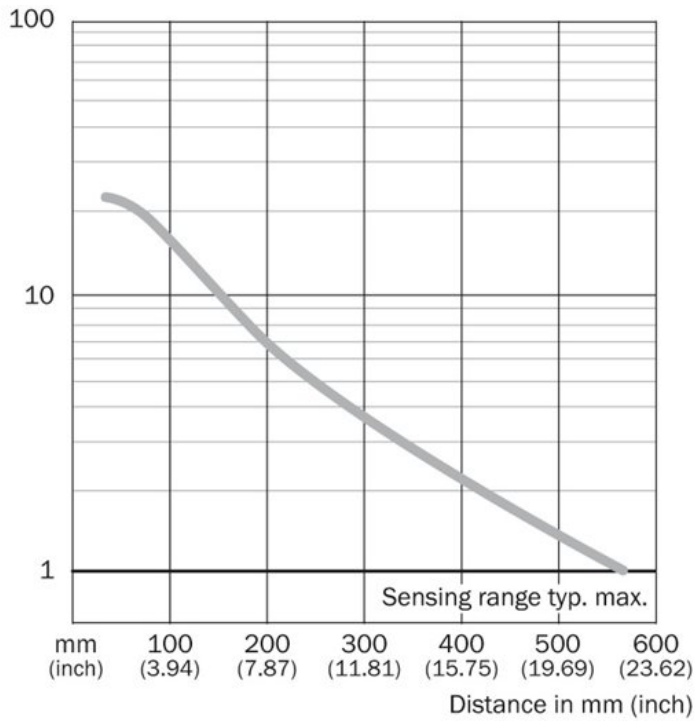
Dimensional drawing



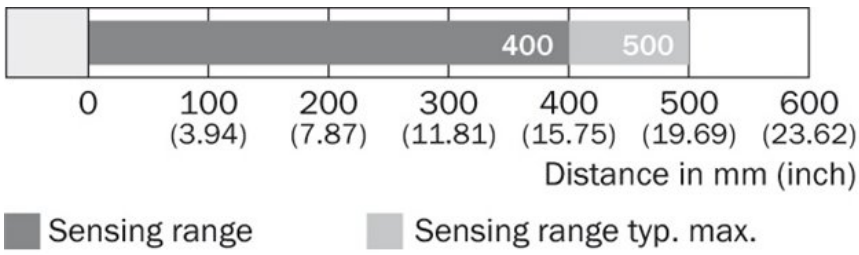
Connection diagram



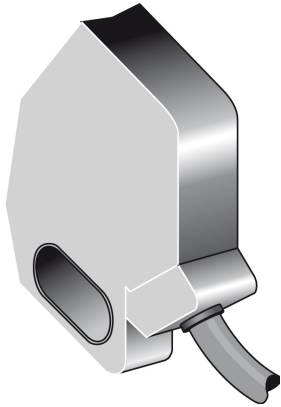
Characteristic curve



Sensing range diagram



Connection type



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