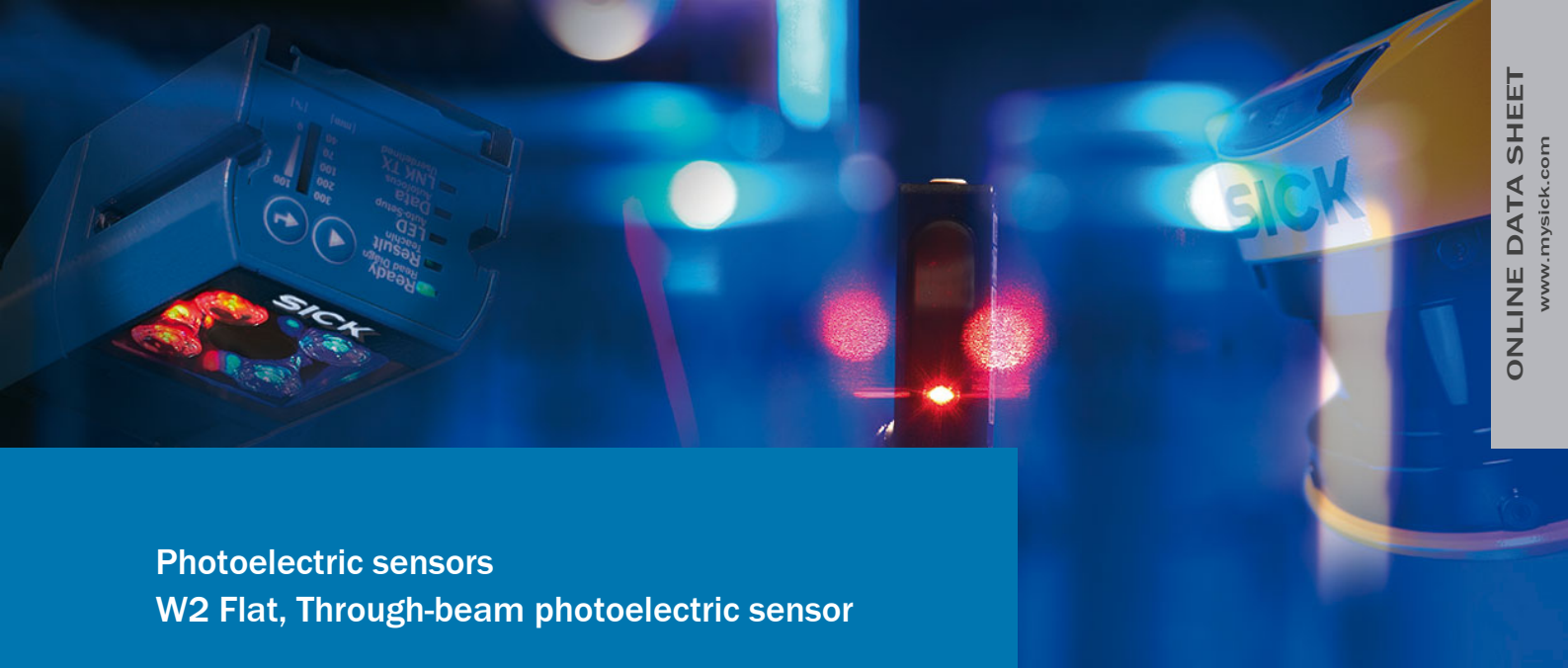




Photoelectric sensors W2 Flat, Through-beam photoelectric sensor

WS/WE2F-F410



Model Name > [WS/WE2F-F410](#)
Part No. > [6030571](#)



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, Flat
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):	Ø 10 mm (100 mm)

¹⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$

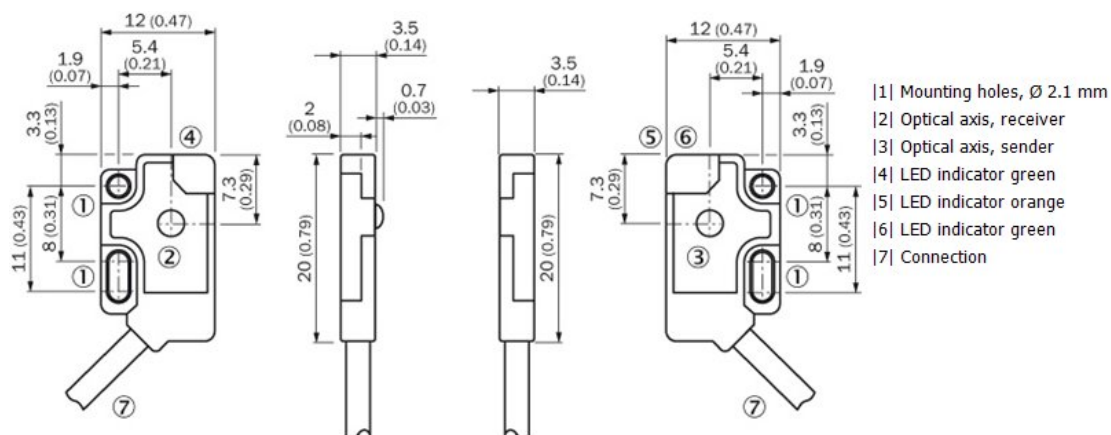
Mechanics/electronics

Supply voltage:	12 V DC ... 24 V DC ¹⁾
Ripple:	$\leq 5\text{ Vpp}$ ²⁾
Output type:	PNP
Switching mode:	Dark-switching
Signal voltage PNP HIGH/LOW:	Approx. $V_S - 1.8\text{ V}$ / 0 V
Signal voltage NPN HIGH/LOW:	Approx. V_S / $< 1.8\text{ V}$
Output current $I_{max.}$:	50
Response time:	$\leq 0.5\text{ ms}$ ³⁾
Switching frequency:	1,000 ⁴⁾

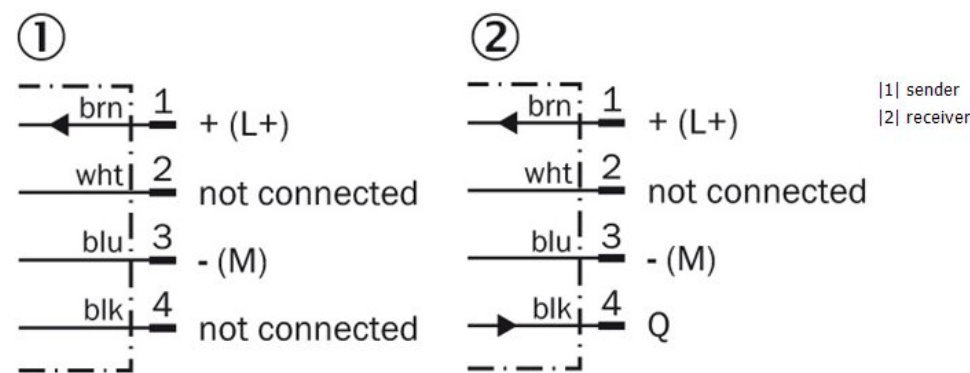
Connection type:	Cable with connector M8, 4-pin, 200 mm ⁵⁾
Cable material:	PVC
Cable diameter:	Ø 2.4 mm
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Weight:	20 g
Polarisation filter:	-
Reverse polarity protection:	✓
Short-circuit protection:	✓
Housing material:	Plastic, PC
Optics material:	PC
Enclosure rating:	IP 67
Ambient operating temperature:	-20 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 75 °C

¹⁾ +- 10 % ²⁾ May not exceed or fall short of V_S 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

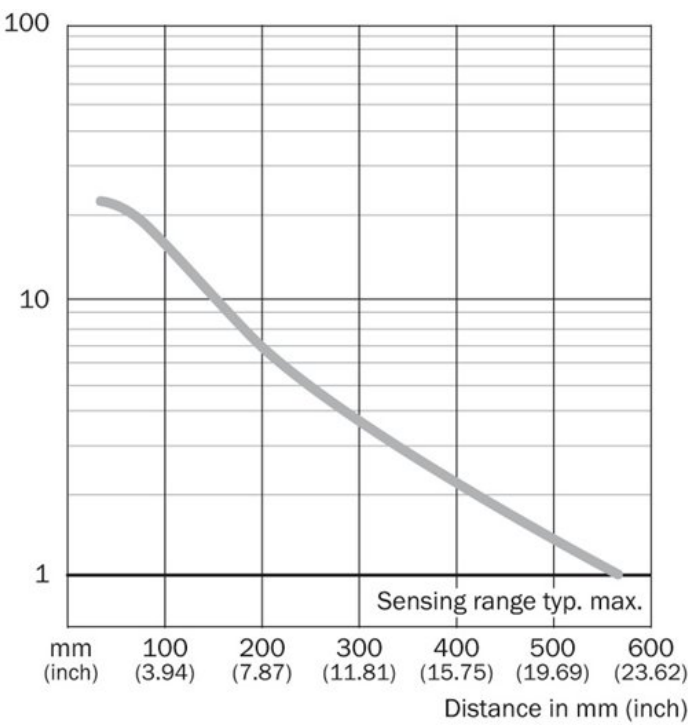
Dimensional drawing



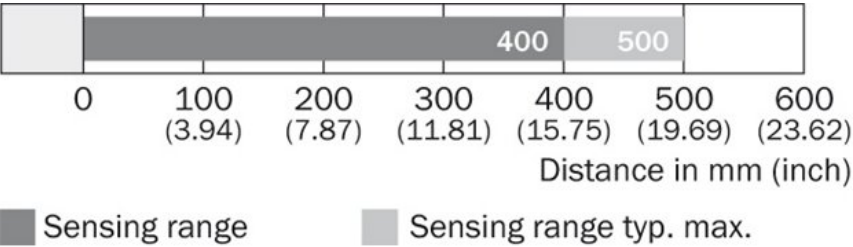
Connection diagram



Characteristic curve



Sensing range diagram



Connection type



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