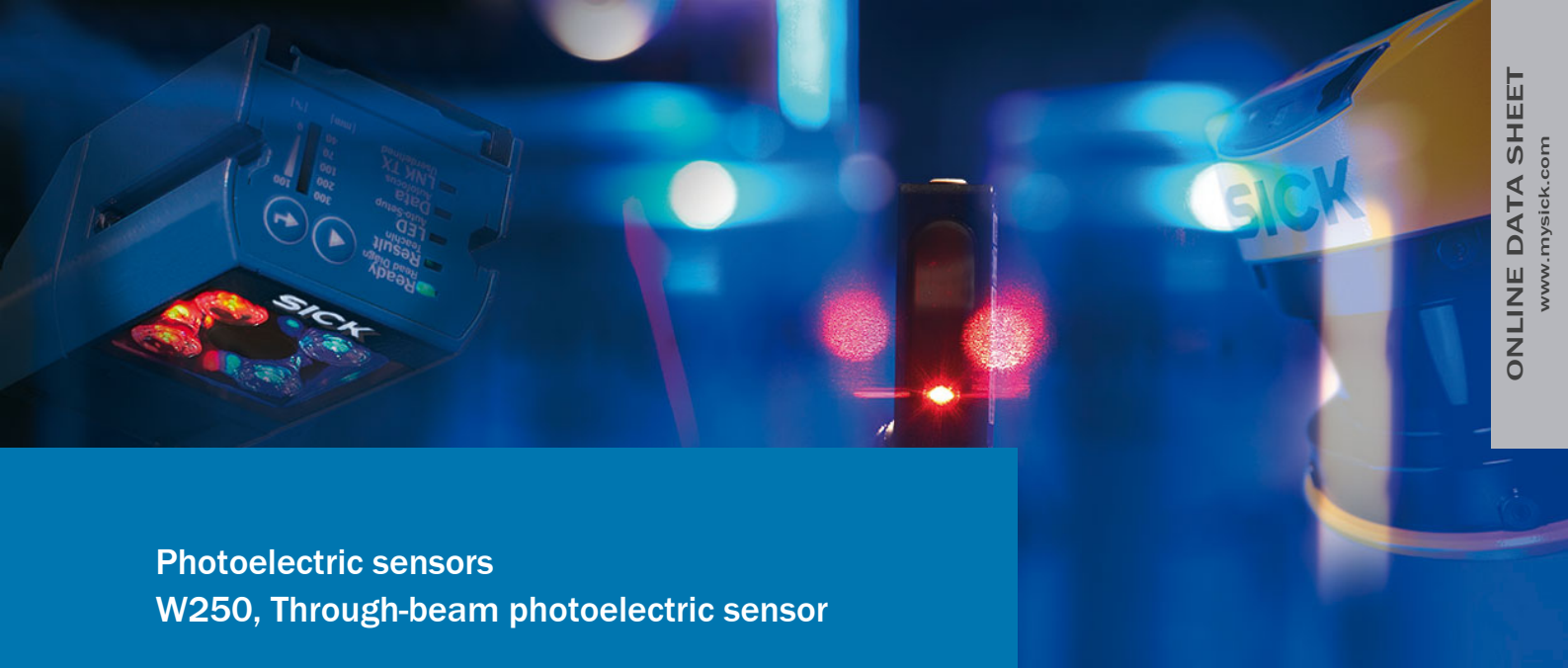




Photoelectric sensors W250, Through-beam photoelectric sensor

WS/WE250-N142



Model Name > [WS/WE250-N142](#)
Part No. > [6026263](#)



Illustration may differ

At a glance

- Versions for 10 - 30 V DC or 12 - 240 V DC/ 24 – 240 V AC voltage supply in compact design
- Mounting bracket included in delivery
- Potentiometer with an easy-to-read positioning indicator for adjusting the sensing range
- Operating mode (light/dark) selectable via control wire
- Cable or rotatable M12 connector
- UL recognized

Your benefits

- Universal AC/DC voltage variants provide high performance and increased flexibility in environments with limited space
- Mounting kit reduces installation time
- Operating mode (light/dark) is selectable via a control cable to reduce the number of device variants
- Mounting compatibility - DC devices and DC/AC devices available in same design

Note: This part is discontinued. Please see the replacement product under "Replacement Products" link. "



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	20 mm x 65 mm x 43 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 25 m
Sensing range:	0 m ... 20 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Angle of dispersion:	4 °
Light spot size (distance):	1.5 m (20 m)

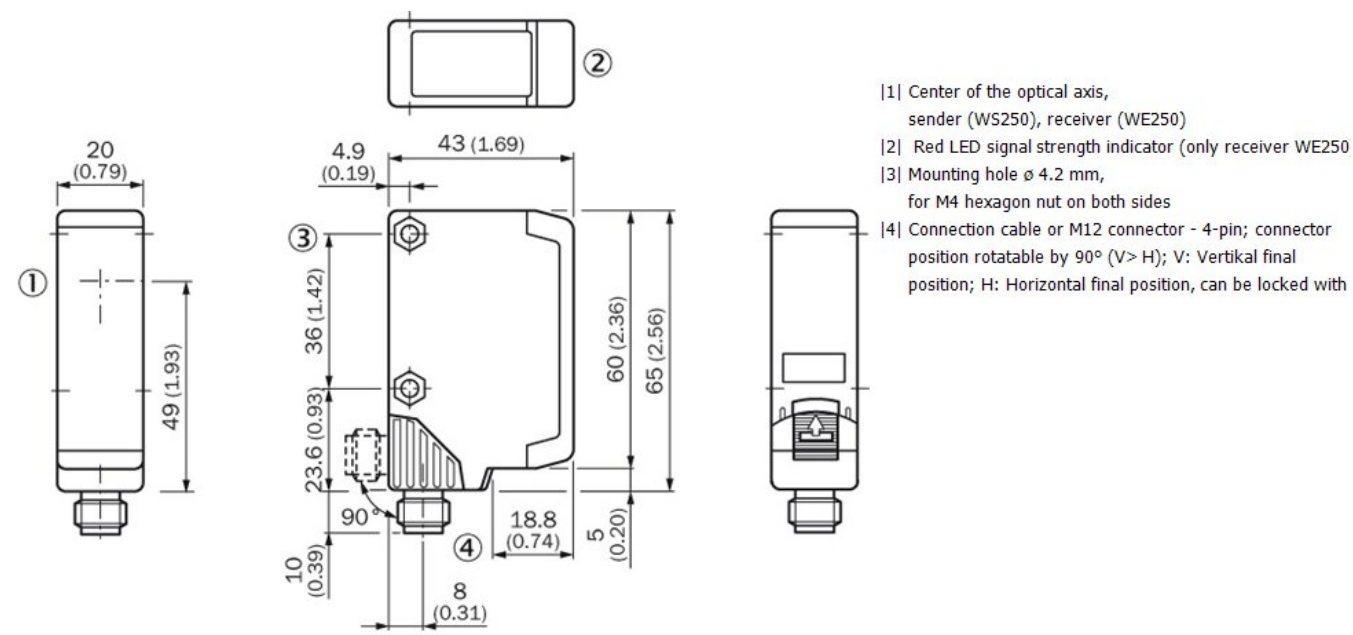
¹⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

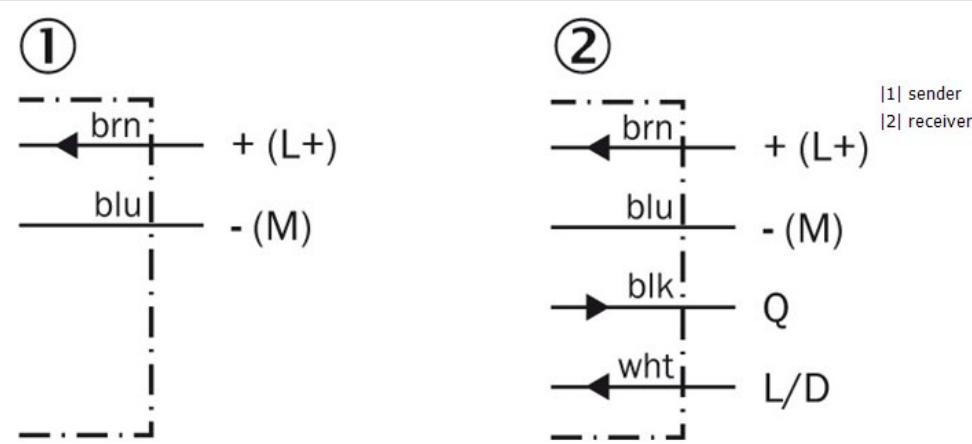
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	$\leq 5 \text{ V}_{pp}$ ²⁾
Power consumption, sender:	20 mA ³⁾
Power consumption, receiver:	35 mA ⁴⁾
Output type:	NPN, open collector
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via L/D control wire
Output current I _{max} :	100 mA
Response time:	$\leq 0.5 \text{ ms}$ ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Angle of reception:	20 °
Connection type:	Cable, 4-wire, 2 m ⁷⁾
Cable material:	PVC
Conductor cross-section:	0.18 mm ²
Cable diameter:	3.8 mm
Circuit protection:::	A, B, C, D ^{8) 9) 10) 11)}
Protection class:	II ¹²⁾
Weight:	300 g
Special device:	-
Housing material:	ABS, Plastic
Optics material:	PC
Enclosure rating:	IP 67
Items supplied:	BEF-W250 mounting bracket
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File No.:	NRNT2.E128350 & NRNT8.E128350

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⁾ Do not bend below 0 °C ⁸⁾ A = V_S connections reverse-polarity protected ⁹⁾ B = inputs and output reverse-polarity protected ¹⁰⁾ C = interference suppression ¹¹⁾ D = outputs overcurrent and short-circuit protected ¹²⁾ Reference voltage 50 V DC

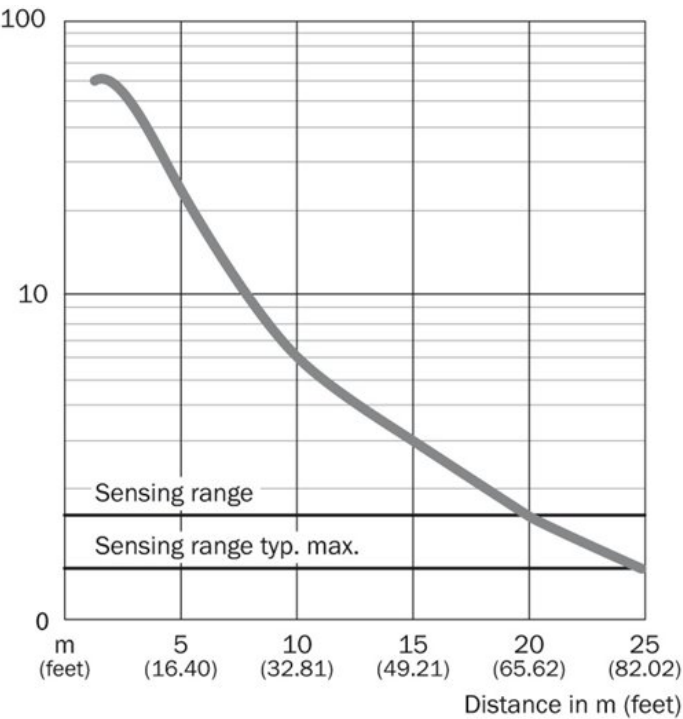
Dimensional drawing



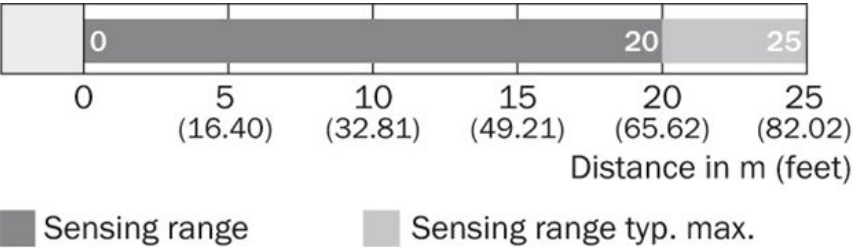
Connection diagram



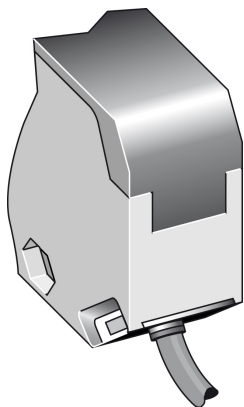
Characteristic curve



Sensing range diagram



Connection type



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