



Photoelectric sensors
W250, Photoelectric retro-reflective sensor

WL250-S132



Model Name > [WL250-S132](#)
Part No. > [6010611](#)



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 and P250 reflector included in delivery
- Visible red light
- Potentiometer sensitivity adjustment with indicator
- 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
- Visible red light and easy-to-read sensitivity indicator simplifies commissioning
- Simple power control for individual application adjustments via potentiometer
- 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
- Polarizing filter ensures reliable detection, even with shiny targets

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



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
Dimensions (W x H x D):	20 mm x 60 mm x 43 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 13.5 m ¹⁾
Sensing range:::	0.01 m ... 11 m, 0.01 m ... 8 m ^{2) 3)}
Type of light:	Visible red light
Light source:	LED ⁴⁾
Light spot (distance):	400 mm (8 m)
Sensitivity adjustment:	Potentiometer, 2-turn ⁵⁾
Angle of dispersion:	2.5 °

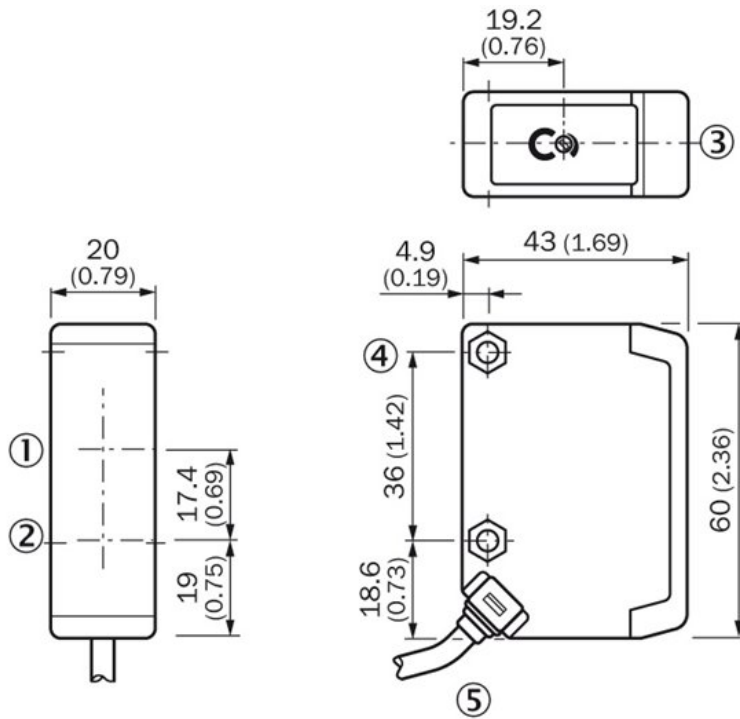
1) 3) PL80A 2) P250 4) Average service life 100,000 h at Ta = +25 °C 5) With position indicator

Mechanics/electronics

Supply voltage::	12 V DC ... 240 V DC, 24 V AC/DC ... 240 V AC/DC ^{1) 2)}
Power consumption:	≤ 2 VA
Output type:	Relay, Light-switching, change-over contacts, electrically isolated ³⁾
Switching current (switching voltage):	3 A (240 V AC), 3 A (30 V DC)
Response time:	≤ 15 ms
Switching frequency:	33 Hz ⁴⁾
Connection type:	Cable, 5-wire, 2 m ⁵⁾
Cable material:	PVC
Conductor cross-section:	0.76 mm ²
Cable diameter:	6.3 mm
Circuit protection::	A, C ^{6) 7)}
Protection class:	II ⁸⁾
Weight:	160 g
Polarisation filter:	✓
Housing material:	ABS
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	BEF-W250 mounting bracket, Reflector P250
Usage category:	AC-15, DC-13, According to EN 60947-1
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

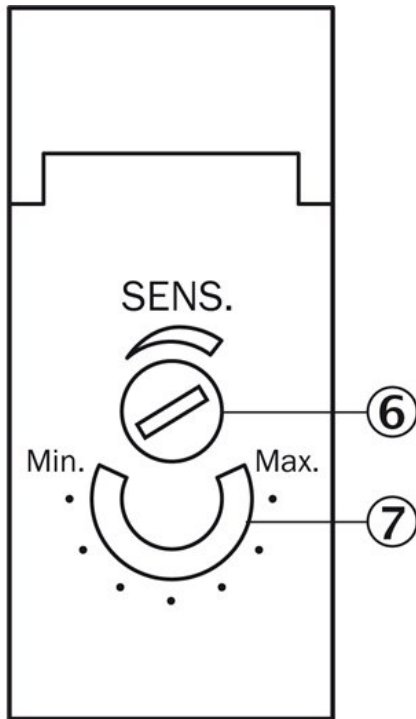
1) 2) ±10 % 3) Provide suitable spark suppression for inductive or capacitive loads 4) With light/dark ratio 1:1 5) Do not bend below 0 °C 6) A = V_S connections reverse-polarity protected 7) C = interference suppression 8) Reference voltage 250 V AC

Dimensional drawing



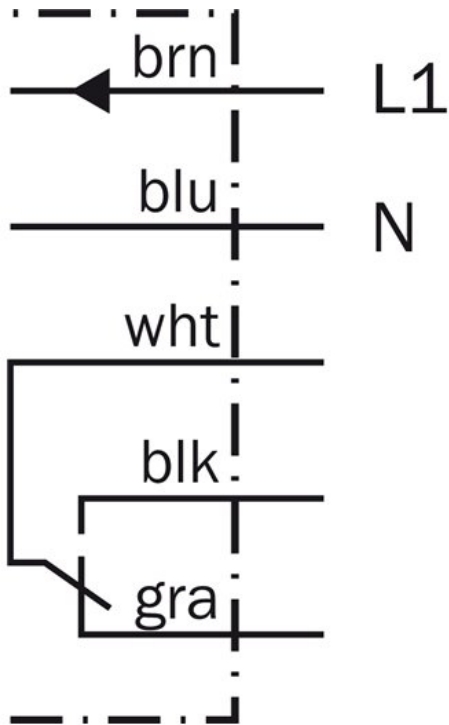
- |1| Reception axis
- |2| Transmission axis
- |3| LED reception indicator, red
- |4| Mounting hole \varnothing 4.2 mm, for M4 hexagon nut on both sides
- |5| Connection cable

Adjustments possible

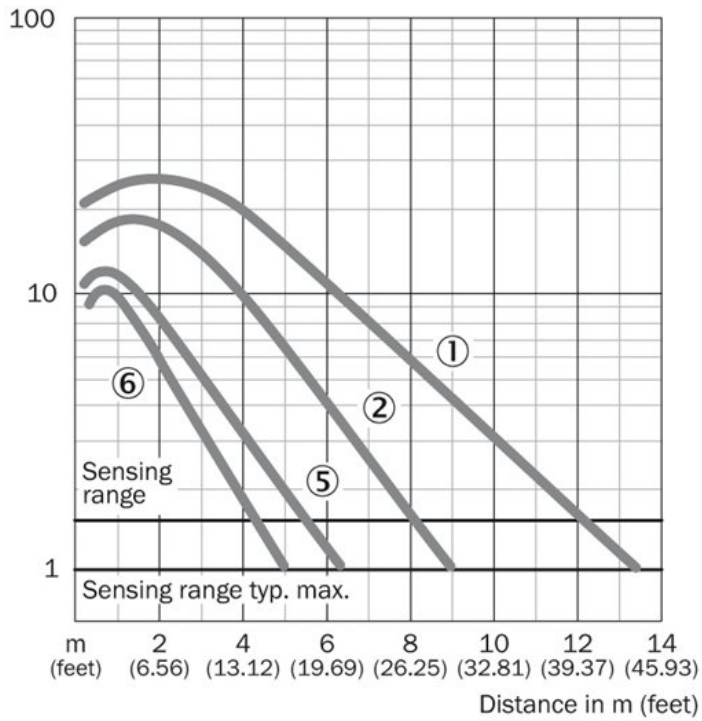


- |6| Sensitivity adjustment (2 turns) , over-turn protection
- |7| Position indicator for sensitivity setting (270°)

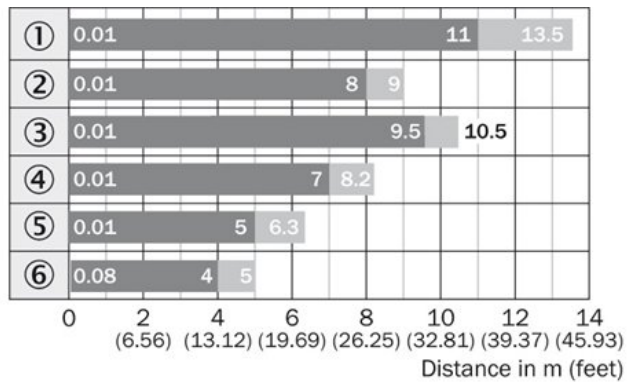
Connection diagram



Characteristic curve



Sensing range diagram



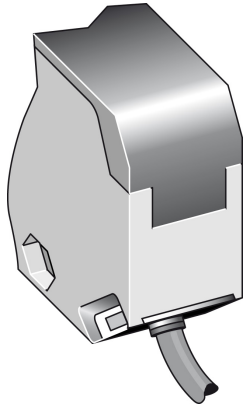
■ Sensing range

■ Sensing range typ. max.

Reflector type

- ① PL80A
- ② P250
- ③ PL50A/PL40A
- ④ PL30A/PL31A
- ⑤ PL20A
- ⑥ Reflective tape
Diamond Grade

Connection type



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