



Photoelectric sensors W12-2 AS-i, Photoelectric retro-reflective sensor, autocollimation

WL12-2Z430



Model Name > [WL12-2Z430](#)
Part No. > [1016108](#)



At a glance

- Autocollimation optics
- Rugged housing for industrial use
- Highly visible red light spot for versatile detection of objects
- Rugged die-cast zinc housing with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs
- Sensing range is adjustable via potentiometer
- AS-i communication

Your benefits

High immunity to optical interference reduces false readings

Bright, very small and precise red light spot enables quick and easy sensor alignment and reliable detection of the smallest of objects

Highly visible status LEDs simplify commissioning and reduce installation time

Remote diagnostics, remote maintenance and simplified sensor installation due to AS-i technology

Sensor connection to bus systems provides communication

Easy installation using SICK accessories



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	15 mm x 49 mm x 41.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 7 m ¹⁾
Sensing range:	0 m ... 5 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Light spot (distance):	80 mm (3 m)
Sensitivity adjustment:	Potentiometer, 5-turn

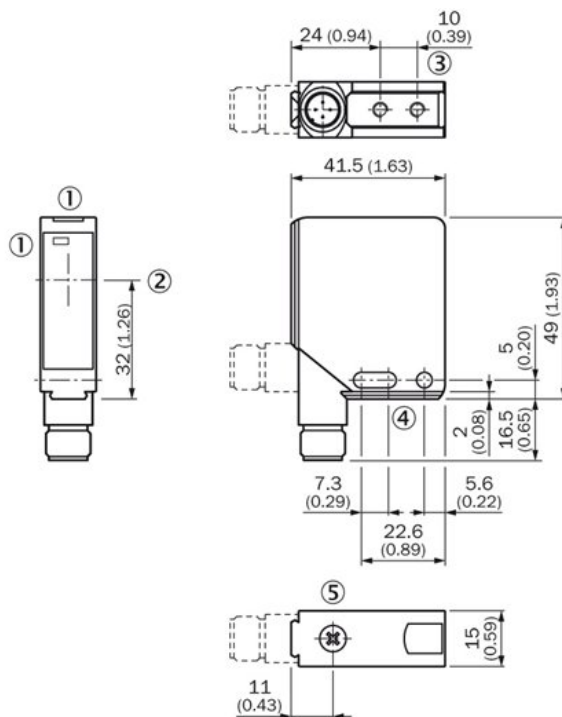
^{1) 2)} PL80A ³⁾ Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

Supply voltage:	26.5 V DC ... 31.5 V DC ¹⁾
Power consumption:	≤ 35 mA ²⁾
Response time:	≤ 330 μs ³⁾
Switching frequency:	1,500 Hz ⁴⁾
Connection type:	Connector M12, 4-pin
Circuit protection::	A ⁵⁾ 6) C
Protection class:	II
Weight:	120 g
Polarisation filter:	✓
Enclosure rating:	IP 67 IP 69K
Test input sender off:	TE to 0 V
Ambient operating temperature:	-25 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

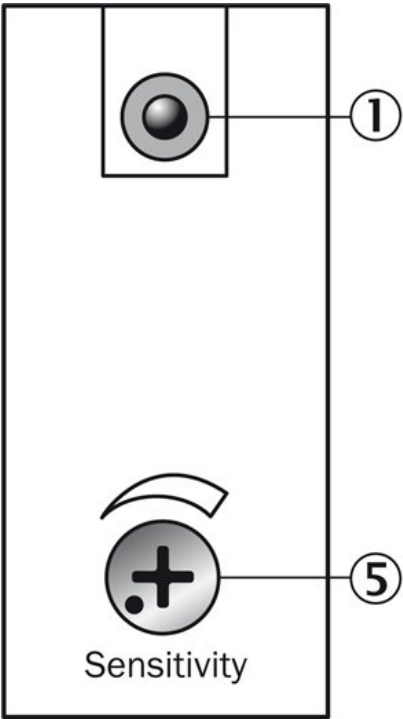
1) Limit values 2) Without load 3) Signal transit time with resistive load 4) With light/dark ratio 1:1 5) A = V_S connections reverse-polarity protected 6) C = interference suppression

Dimensional drawing



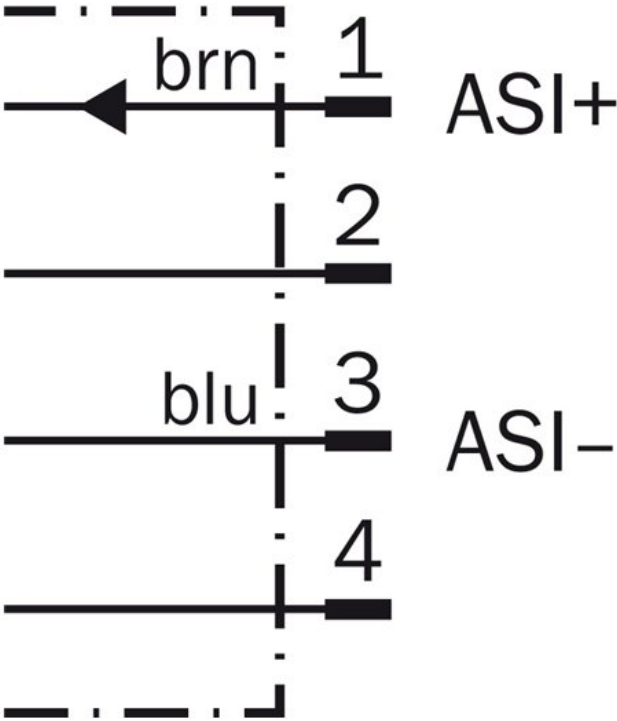
- [1] LED signal strength indicator
- [2] Center of optical axis
- [4] Mounting hole, Ø 4.2 mm
- [5] Function selector

Adjustments possible

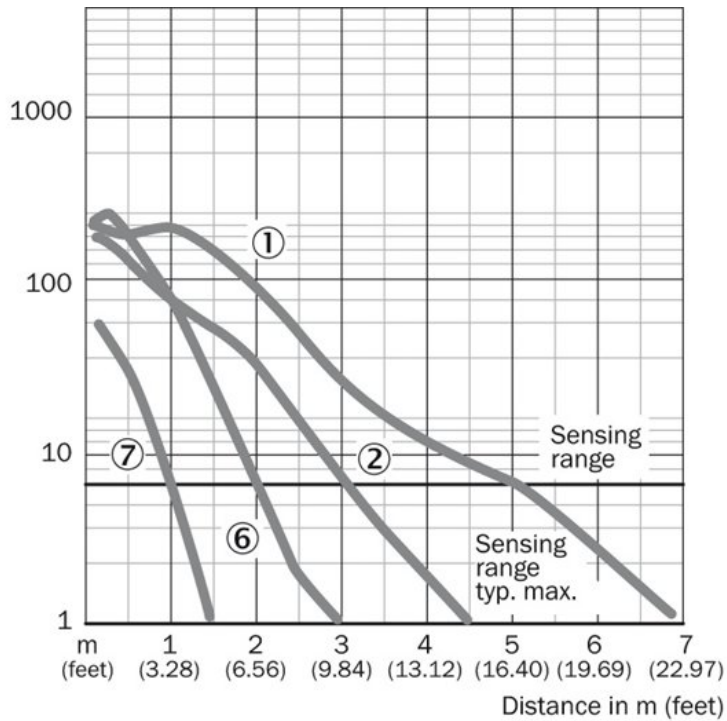


- |1| Receive indicator
- |5| Sensitivity adjustment

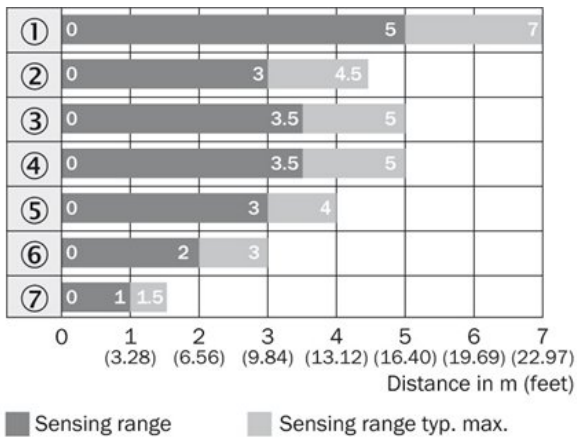
Connection diagram



Characteristic curve



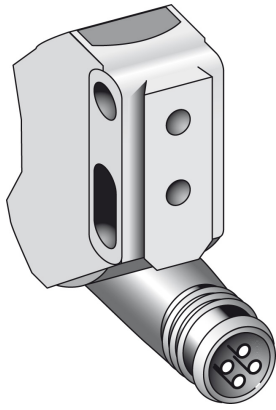
Sensing range diagram



Reflector type

- ① PL80A
- ② C110
- ③ PL50A
- ④ PL40A
- ⑤ PL30A
- ⑥ PL20A
- ⑦ Reflective tape

Connection type



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