



Photoelectric sensors
W14-2, Photoelectric retro-reflective sensor,
Standard optics

WL14-2P430S16



Model Name > [WL14-2P430S16](#)
Part No. > [1065216](#)



Illustration may differ

At a glance

- PinPoint LED with small, bright and precise light spot
- Polarizing filter
- High immunity to ambient light
- Rugged plastic housing

Your benefits

- Very long sensing ranges due to high-energy PinPoint LED
- Quick and easy installation due to highly visible red light
- Reliable object detection, even on shiny objects due to a polarizing filter
- Crosstalk and ambient light immunity reduces false readings and downtime
- High availability in the field



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	17.6 mm x 75.5 mm x 33.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.15 m ... 17 m ¹⁾
Sensing range:	0.15 m ... 12 m ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Angle of dispersion:	Ca. 0.9 °
Light spot size (distance):	Ø 30 mm (2 m)

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

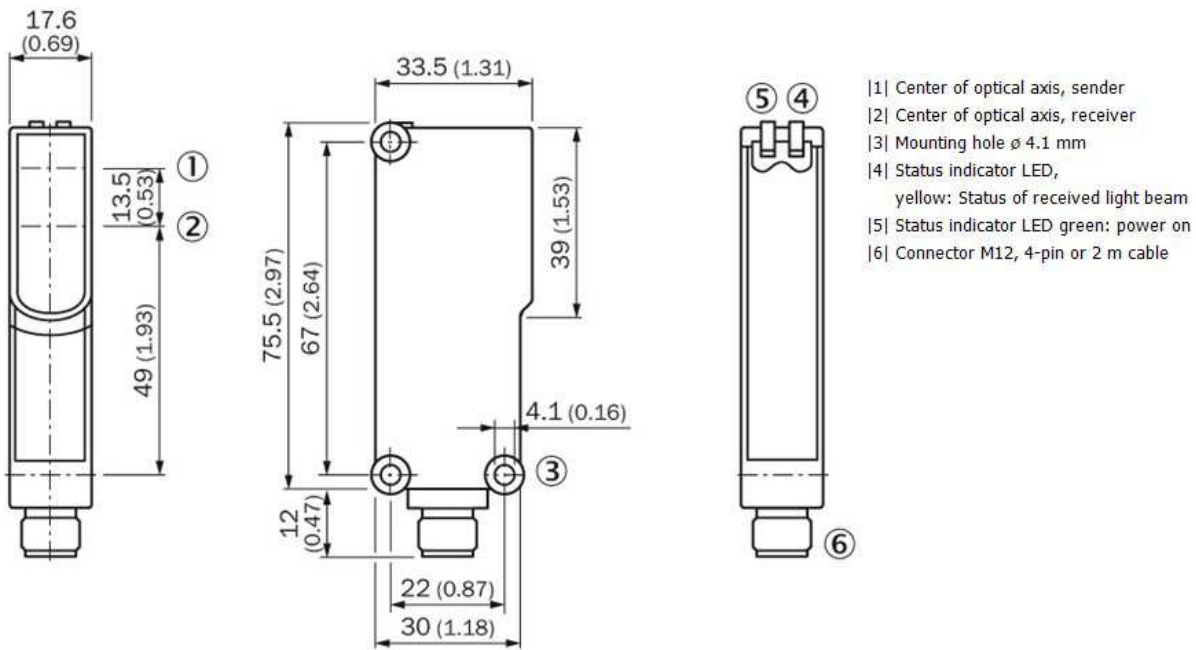
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	5 Vpp ²⁾
Power consumption:	≤ 35 mA ³⁾
Output type:	PNP
Switching mode:	Light switching
Output current I _{max} ·:	≤ 100 mA
Response time:	≤ 2.5 ms ⁴⁾
Switching frequency:	200 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ^{6) 7) 8)}

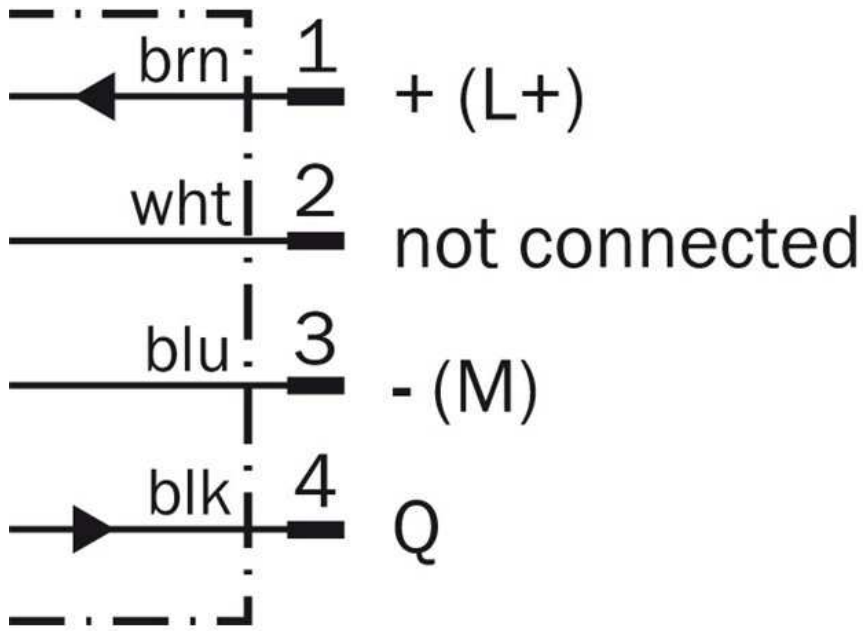
Weight: 40 g
 Polarisation filter: ✓
 Special device: ✓
 Housing material: ABS, Plastic
 Optics material: PMMA
 Enclosure rating: IP 67
 Ambient temperature operation: -25 °C ... +60 °C
 Ambient storage temperature: -40 °C ... +70 °C
 UL File No.: NRKH.E181493 & NRKH7.E181493

1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load
 5) With light/dark ratio 1:1 6) A = V_S connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

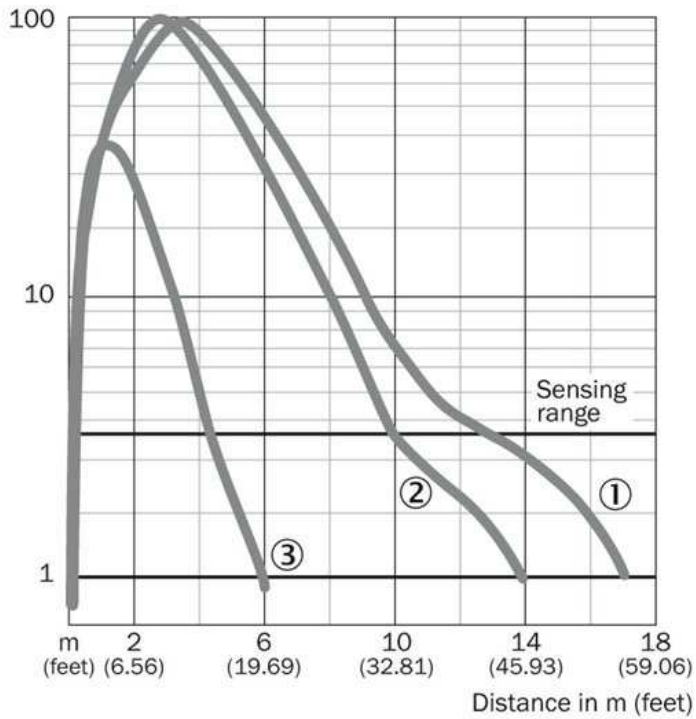
Dimensional drawing



Connection diagram

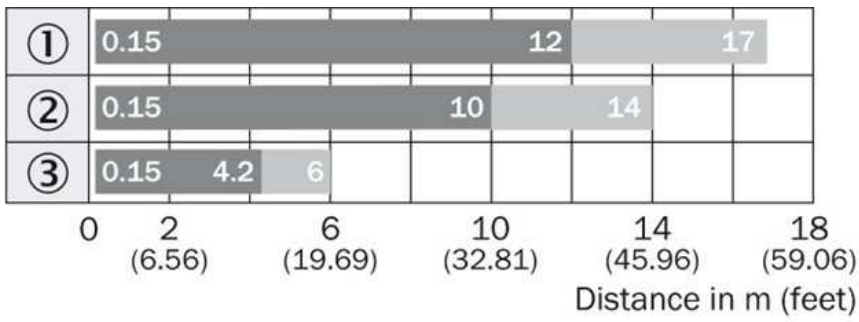


Characteristic curve



- [1] PL80A
- [2] PL40A
- [3] Reflective tape REF-IRF-56

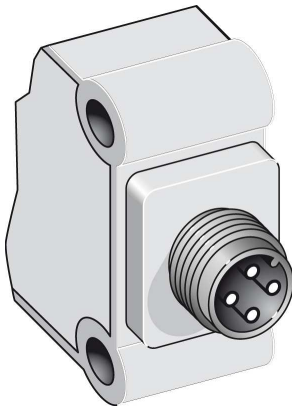
Sensing range diagram



- |1| PL80A
- |2| PL40A
- |3| Reflective tape REF-IRF-56

■ Sensing range ■ Sensing range max.

Connection type



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