



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

WL14-2K430



**Model Name** > [WL14-2K430](#)  
**Part No.** > [1028427](#)



Illustration may differ

**At a glance**

- Emitter LED with visible red light
- Polarizing filter
- High immunity to ambient light
- Rugged plastic housing

**Your benefits**

- Highly visible red light provides quick and easy installation
- Reliable detection, even of shiny targets due to polarizing filters
- 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 ... 6 m <sup>1)</sup>
Sensing range:	0.15 m ... 4 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
Wave length:	645 nm
Angle of dispersion:	Ca. 2 °
Light spot size (distance):	Ø 140 mm (4 m)

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

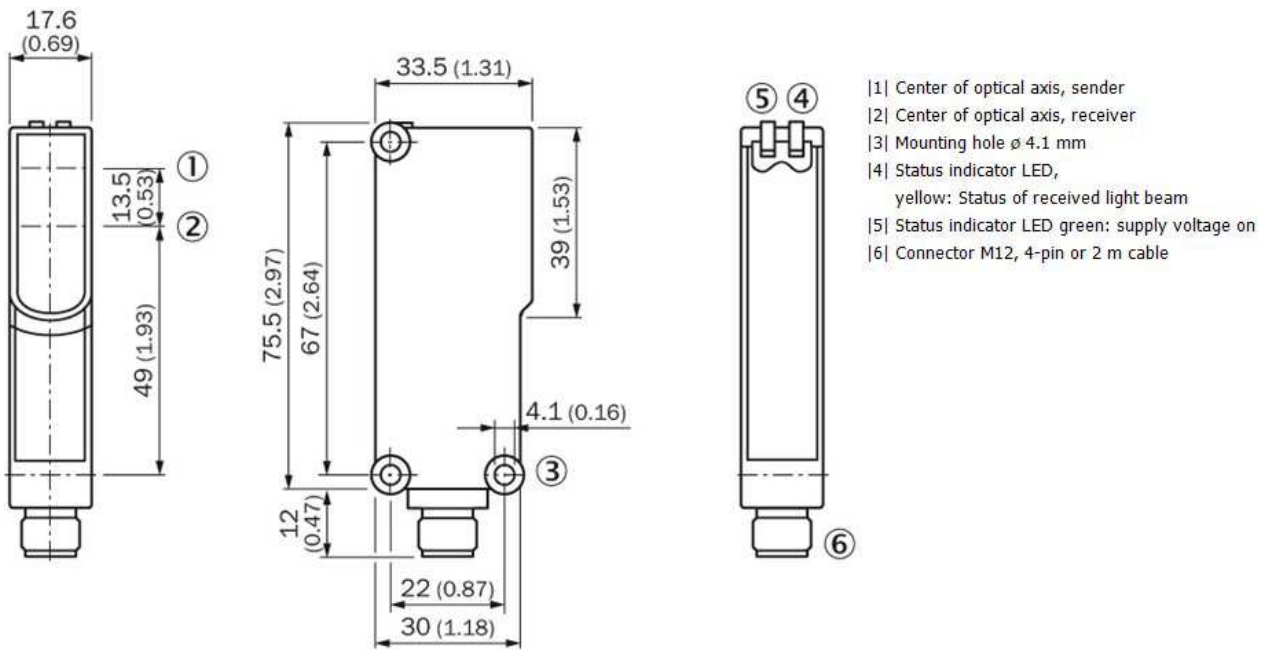
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	5 Vpp <sup>2)</sup>
Power consumption:	≤ 35 mA <sup>3)</sup>
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Output current I <sub>max.</sub> :	≤ 100 mA
Response time:	≤ 2.5 ms <sup>4)</sup>
Switching frequency:	200 Hz <sup>5)</sup>
Connection type:	Connector M12, 4-pin

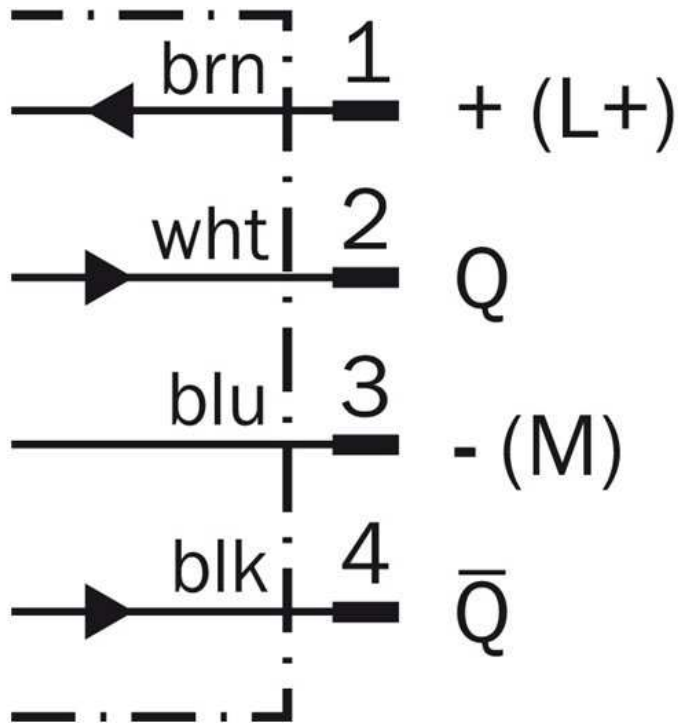
Circuit protection:::	A, C, D <sup>6) 7) 8)</sup>
Weight:	40 g
Polarisation filter:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	ABS, Plastic

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

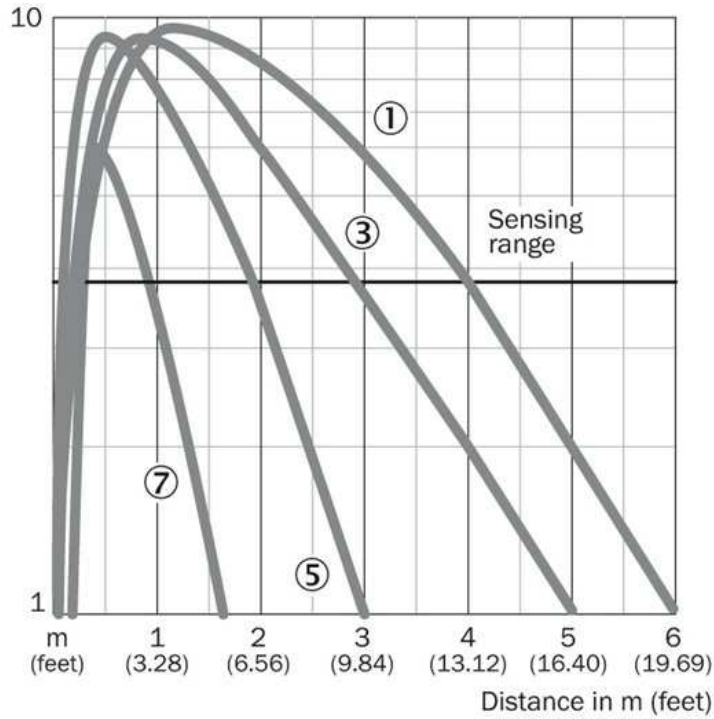
### Dimensional drawing



Connection diagram

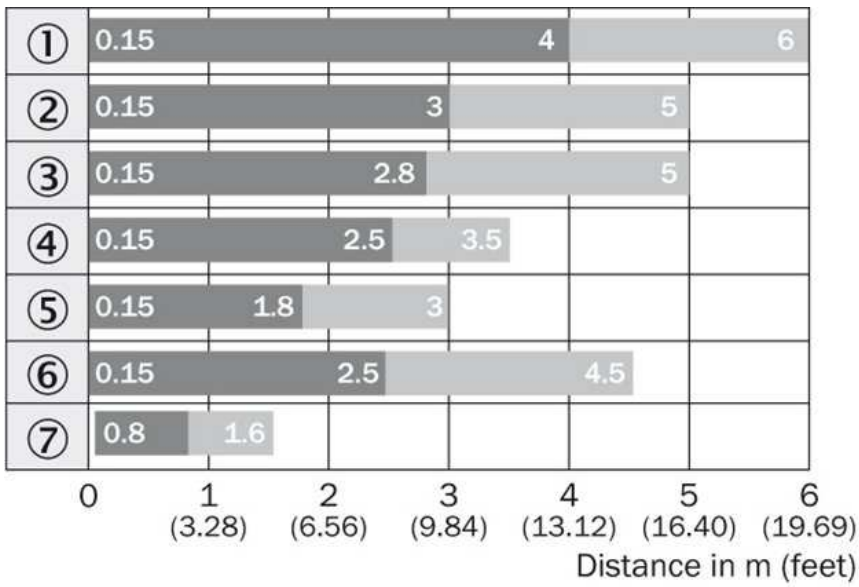


Characteristic curve



- [1] PL80A
- [3] PL40A
- [5] PL20A
- [7] Reflective tape Diamond Grade

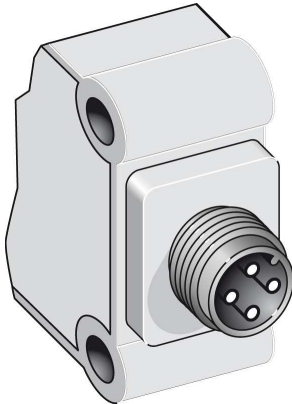
## Sensing range diagram



- |1| PL80A
- |2| PL50A
- |3| PL40A
- |4| PL30A
- |5| PL20A
- |6| C110A
- |7| Reflective tape Diamond Grade

■ Sensing range      ■ Sensing range max.

## Connection type



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