



Photoelectric sensors  
W4-3, Photoelectric retro-reflective sensor,  
Standard optics

WL4-3E3030S21



**Model Name** > [WL4-3E3030S21](#)  
**Part No.** > [1029891](#)



*Illustration may differ*

**At a glance**

- Fixed setting or setting via teach-in pushbutton
- PinPoint LED technology for highly visible, intense light spot
- Sensing range from 0.01 - 4 m
- Rugged plastic housing with M3 threaded metal inserts

**Your benefits**

- The PinPoint LED's sharply defined, intense light spot simplifies alignment
- Low-cost machine integration due to small dimensions that enable mounting in areas with tight space restrictions
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	16 mm x 39.5 mm x 12 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 4.5 m <sup>1)</sup>
Sensing range:	0.02 m ... 3.5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	650 nm
Special features:	AMP-connector
Light spot size (distance):	Ø 75 mm (1.5 m)

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

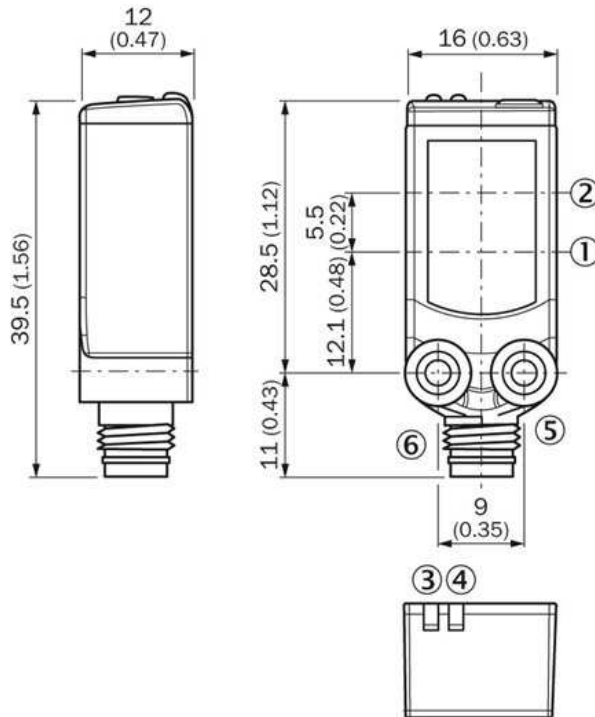
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple::	< 5 V <sub>pp</sub> <sup>2) 3)</sup>
Power consumption:	≤ 20 mA <sup>4)</sup>
Output type:	NPN
Switching mode:	Dark switching
Output current I <sub>max</sub> ::	≤ 100 mA <sup>5)</sup>
Response time:	< 0.5 ms <sup>6)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>

Protection class:	III
Weight:	30 g
Polarisation filter:	✓
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	ABS, Plastic

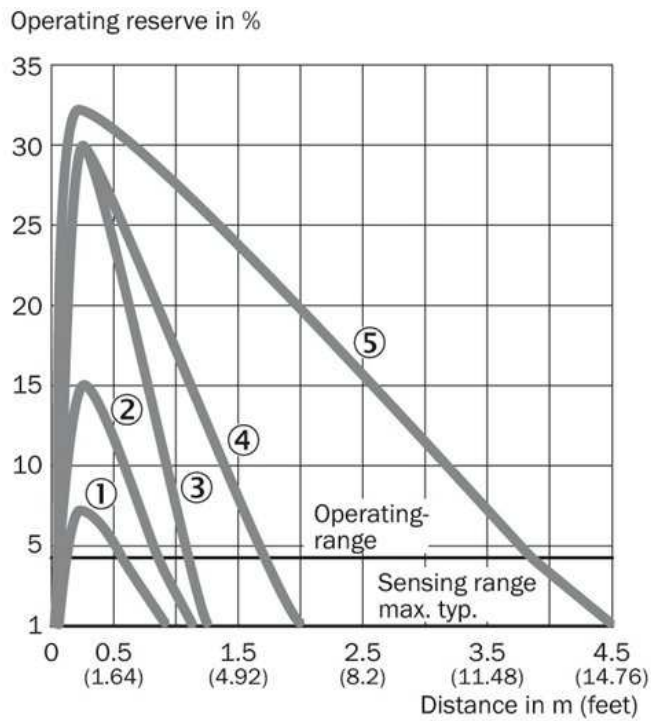
1) Limit values 2) 3) May not exceed or fall short of  $V_S$  tolerances 4) Without load 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7)  $A = V_S$   
connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

### Dimensional drawing



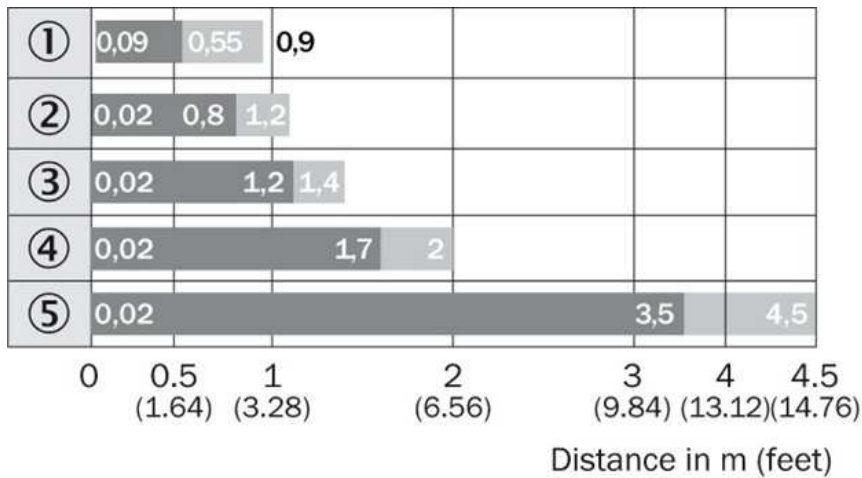
- |1| Center of optical axis, sender
- |2| Center of optical axis, receiver
- |3| LED indicator orange: status of received light beam
- |4| Status indicator LED green: supply voltage on
- |5| Threaded mounting hole M3
- |6| Connection

## Characteristic curve



- |1| REF-IRF-56
- |2| PL10F
- |3| PL20A
- |4| PL40A
- |5| PL80A

## Sensing range diagram



- |1| REF-IRF-56
- |2| PL10F
- |3| PL20A
- |4| PL40A
- |5| PL80A

■ Sensing range      ■ Sensing range max.

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