



Photoelectric sensors W18-3, Photoelectric retro-reflective sensor, autocollimation

WL18-3P030S07



Model Name > [WL18-3P030S07](#)
Part No. > [1042484](#)



Illustration may differ

At a glance

- Sender LED with visible red light
- Autocollimation optics
- Sensitivity control
- Immune to ambient light
- Rugged plastic housing

Your benefits

- Quick installation due to highly visible red light saves time
- Reliable object detection without blind zones due to autocollimation optics
- Quick and easy sensing range adjustment
- Crosstalk and ambient light immunity reduce false readings and downtime
- Reliable availability in the field



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
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 m ... 2 m ¹⁾
Type of light:	Visible red light
Light source:	LED ²⁾
Wave length:	645 nm
Angle of dispersion:	1.8 °
Adjustment:	Potentiometer, 1-turn
Light spot size (distance):	Ø 40 mm (2 m)
Continuous threshold adaption:	-

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

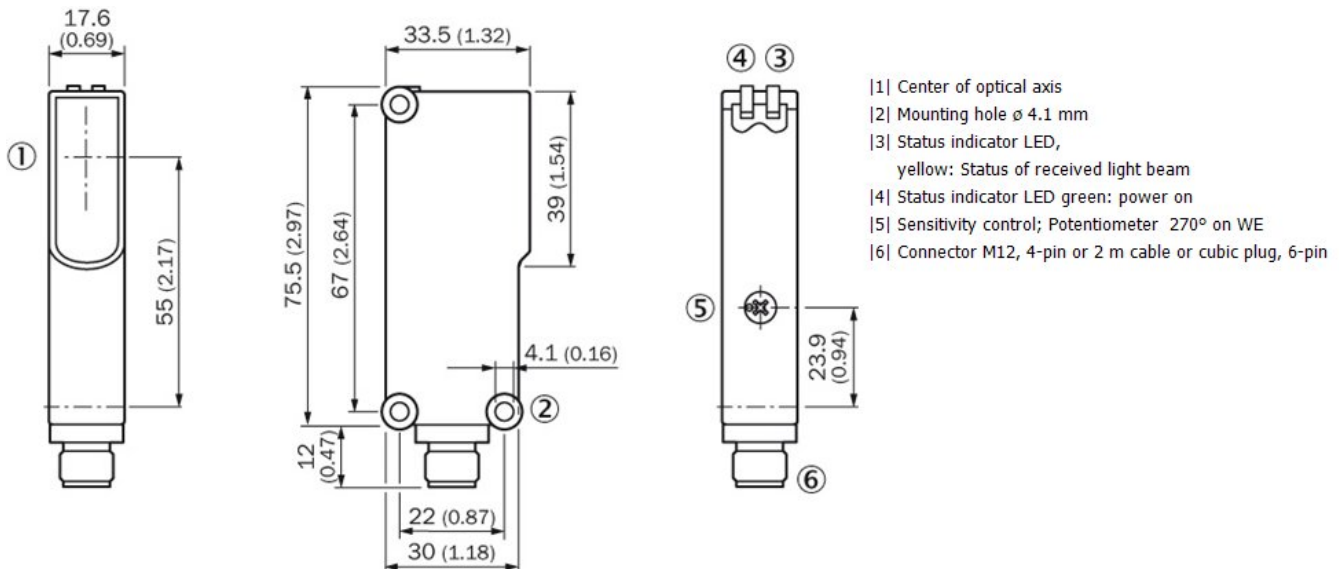
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	40 mA ³⁾
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark-switching
Output current I _{max} :	100 mA

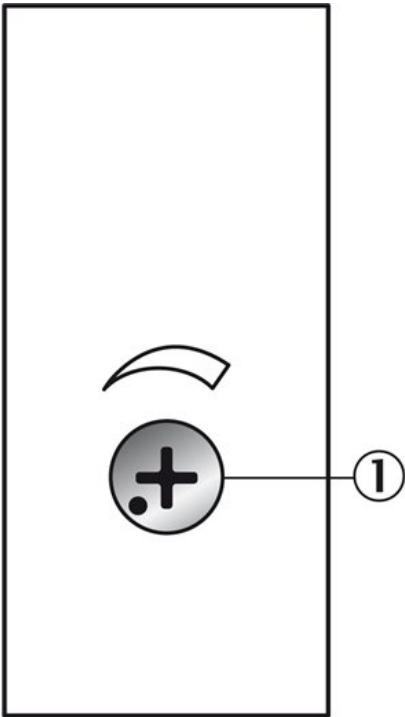
Response time:	< 500 μ s ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Cable with connector M12, 4-pin, 100 mm ⁶⁾
Cable material:	PUR
Circuit protection:::	A, C, D ⁷⁾ 8) 9)
Weight:	100 g
Polarisation filter:	✓
Special device:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Special feature:	For transparent objects
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °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) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

Dimensional drawing

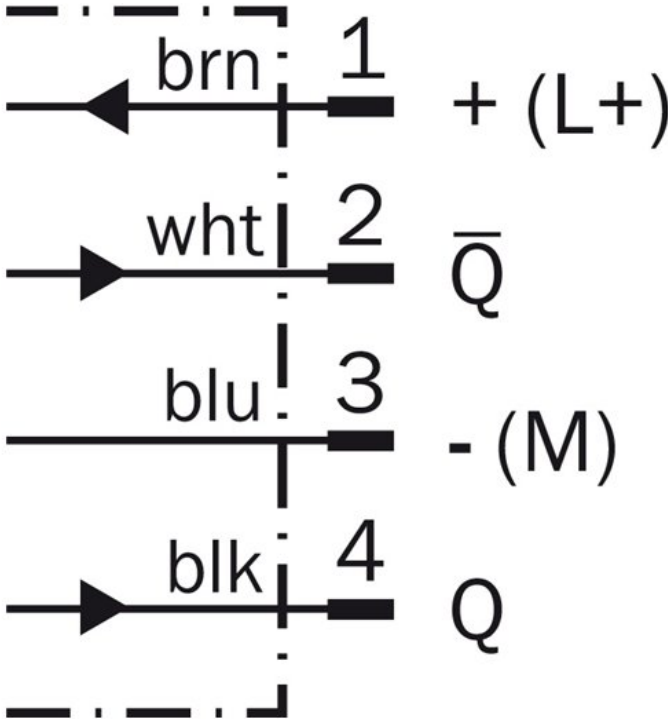


Adjustments possible

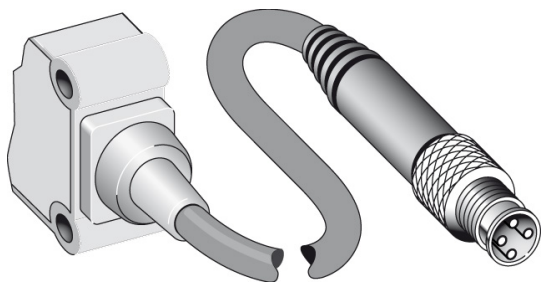


[1] Sensing range adjustment: potentiometer, 4-turn

Connection diagram



Connection type



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