



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

WLF18-3V930



Model Name > **WLF18-3V930**
Part No. > **1025920**



Illustration may differ

At a glance

- Sender LED with visible red light
- Autocollimation optics with polarizing filter
- Immune to ambient light
- Optional alarm output provides a pre-warning in case of contamination
- Rugged plastic housing

Your benefits

- Quick installation due to highly visible red light and preset sensitivity
- Reliable detection of objects without blind zones due to autocollimation optics and a polarizing filter
- Crosstalk and ambient light immunity reduce false readings and downtime
- High availability in the field, optional alarm output provides quick diagnostics information



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, Slim
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⁾
Wave length:	645 nm
Alarm output:	✓
Health output:	-
Angle of dispersion:	1.8 °
Light spot size (distance):	Ø 40 mm (2 m)
Continuous threshold adaption:	-

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

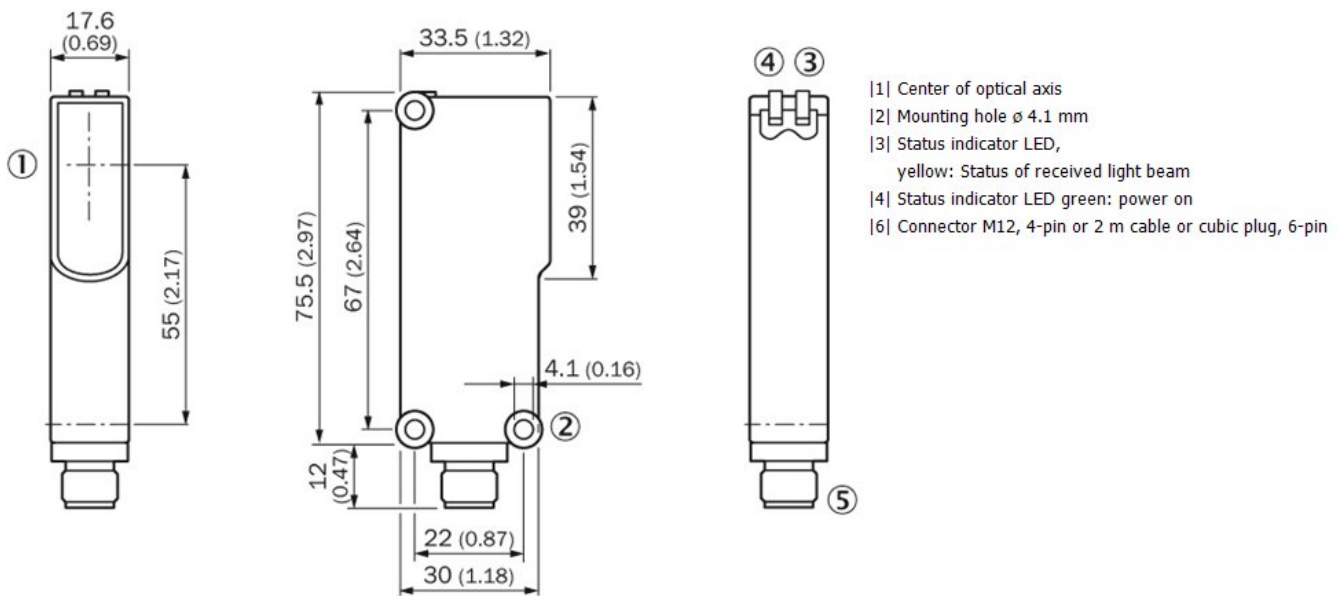
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	40 mA ³⁾
Output type:	PNP

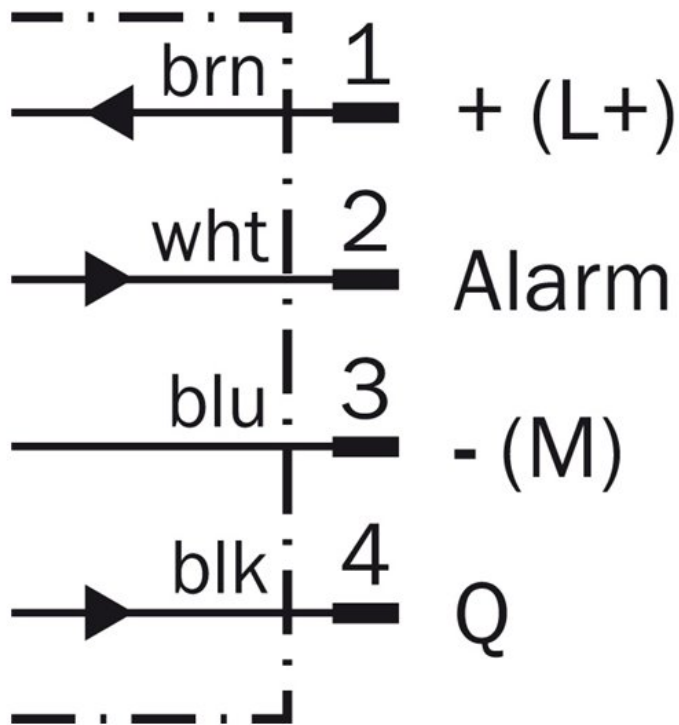
Switching mode:	Light switching
Output current I _{max} :	100 mA
Response time:	< 500 µs ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Cable with connector M12, 4-pin, 0.29 m ⁶⁾
Cable material:	PVC
Circuit protection:::	A, C, D ⁷⁾ ⁸⁾ ⁹⁾
Weight:	70 g
Polarisation filter:	-
Special device:	-
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
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

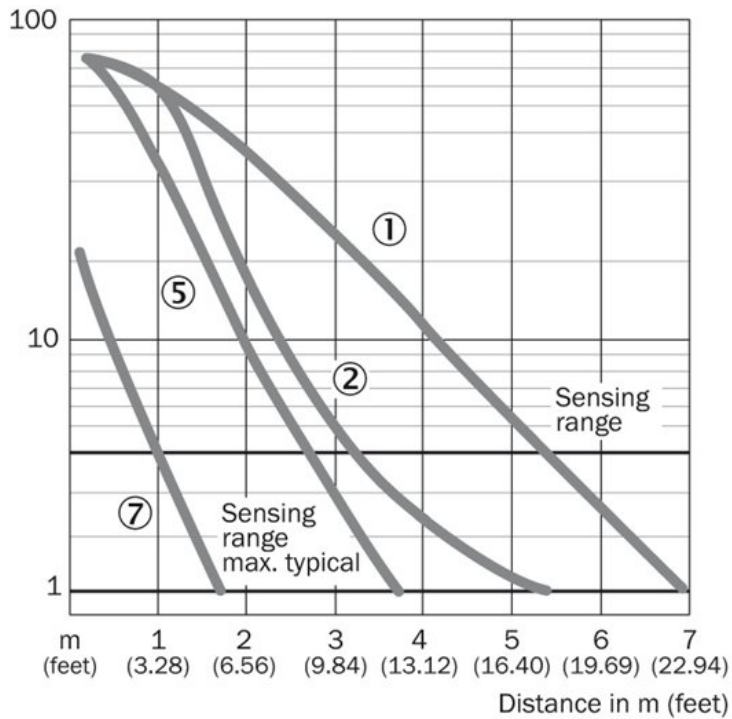
Dimensional drawing



Connection diagram

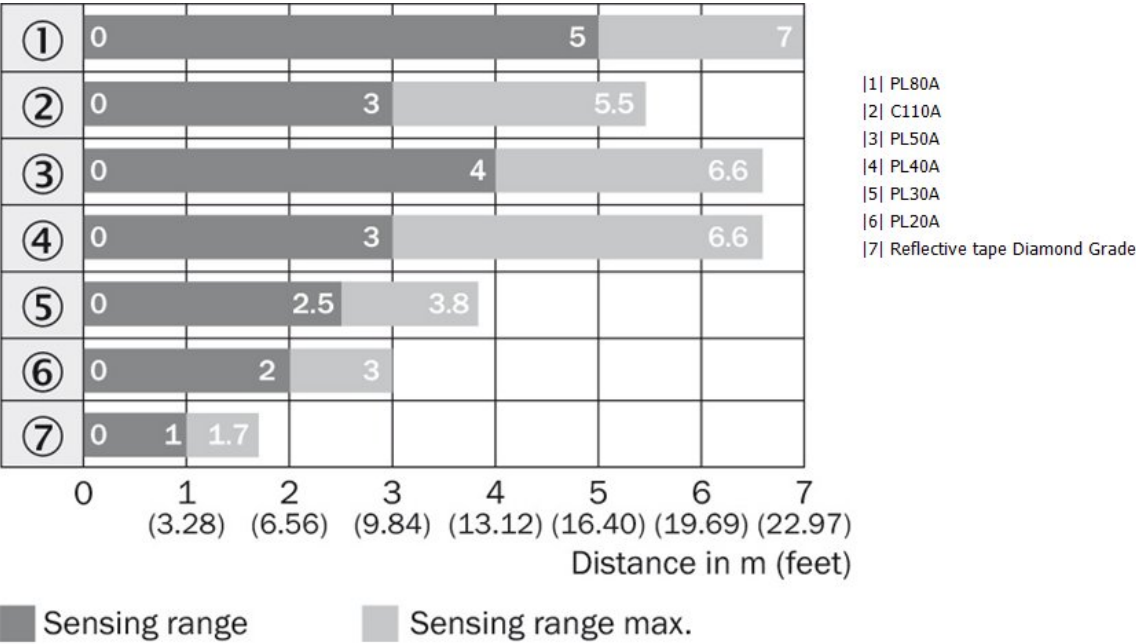


Characteristic curve

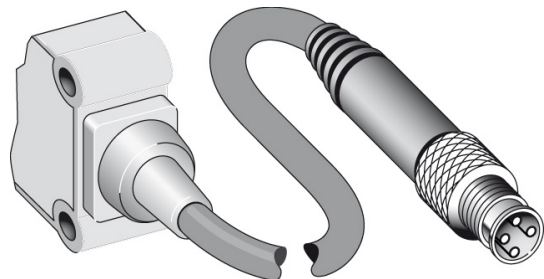


- ① PL80A
- ② C110A
- ⑤ PL30A
- ⑦ Reflective tape Diamond Grade

Sensing range diagram



Connection type



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