



Photoelectric sensors
W18-3 Ex, Photoelectric proximity sensor,
Background suppression

WT18X-3P920S14



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Model Name > [WT18X-3P920S14](#)
Part No. > [1029584](#)



Illustration may differ

At a glance

- Best-in-class optical performance due to superior OES3 technology
- Background suppression with second sender LED
- Slim, durable plastic housing
- Sensors meet requirements of category 3G/3D

Your benefits

- Reliable object detection due to best-in-class background suppression and ambient light immunity
- Reliable use in potentially explosive atmospheres
- High availability in the field
- Quick and easy installation using SICK accessories saves time



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
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.:	10 mm ... 1,000 mm ¹⁾
Sensing range:	50 mm ... 1,000 mm ²⁾
Type of light:	Infrared light
Light source:	LED ³⁾
Wave length:	870 nm
Adjustment:	Potentiometer, 4-turn
Light spot size (distance):	Ø 30 mm (600 mm)
Continuous threshold adaption:	-

^{1) 2)} Object with 90 % reflectance (referred to standard white DIN 5033) ³⁾ Average service life of 100,000 h at T_A = +25 °C

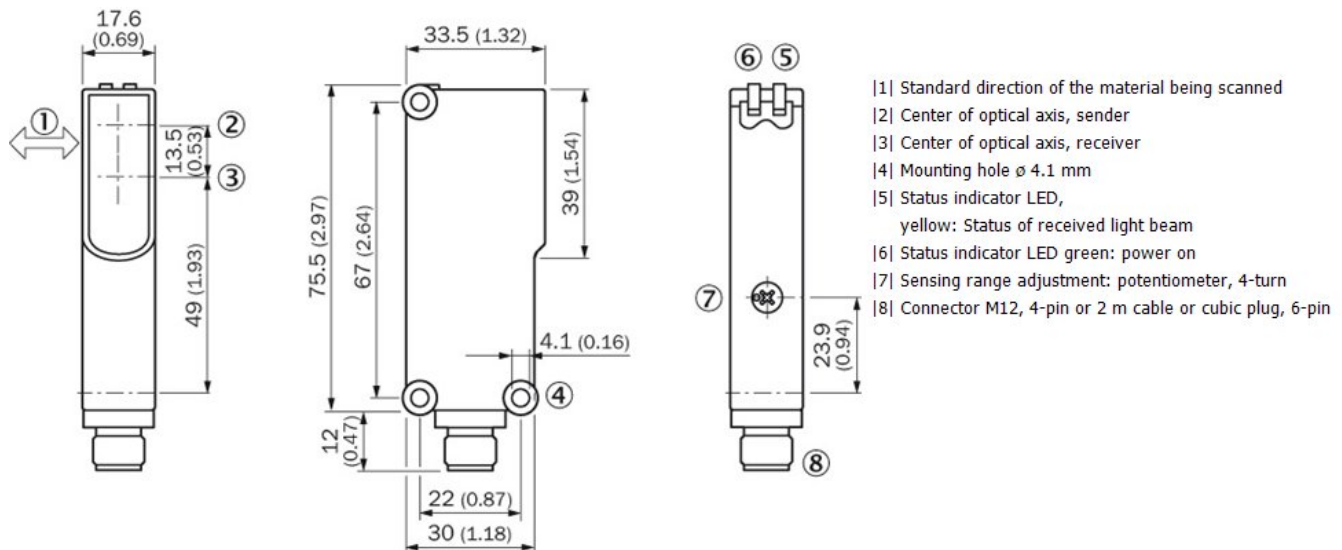
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	55 mA ²⁾
Output type:	PNP
Switching mode:	Light/dark-switching
Output current I _{max} :	100 mA
Response time:	< 700 µs ³⁾
Switching frequency:	± 700 Hz ⁴⁾

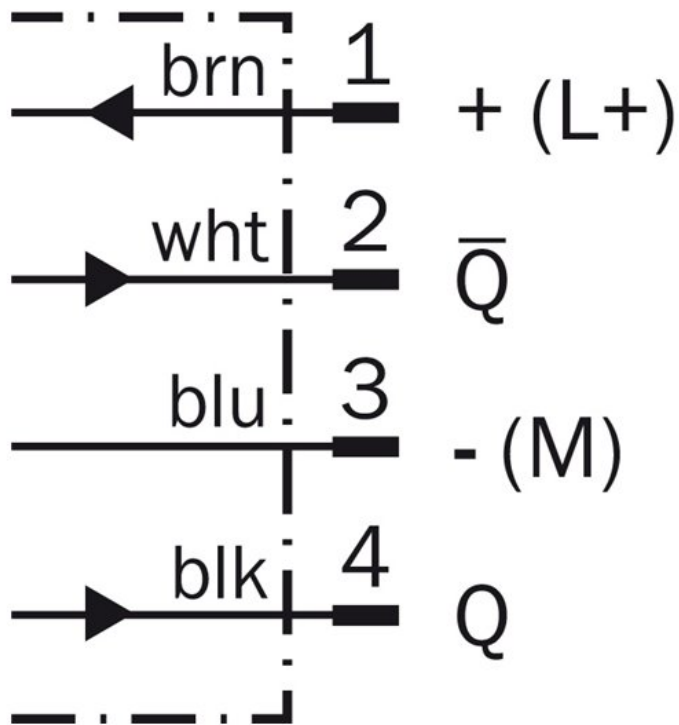
Connection type:	Cable with connector M12, 4-pin, 0.29 m ⁵⁾
Cable material:	PVC
Circuit protection:::	A, C, D ^{6) 7) 8)}
Weight:	70 g
Special device:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
ATEX marking:	EX II 3G EEx nA II T4 ⁹⁾ EX II 3D IP67 T70 °C
Hazardous area category:	3D, 3G
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ Signal transit time with resistive load ⁴⁾ With light/dark ratio 1:1 ⁵⁾ Do not bend below 0 °C ⁶⁾ A = V connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ To validate this protection class, the completeness of the protective housing has to be verified prior to commissioning and, if necessary, the protective housing has to be attached and installed by the operator.

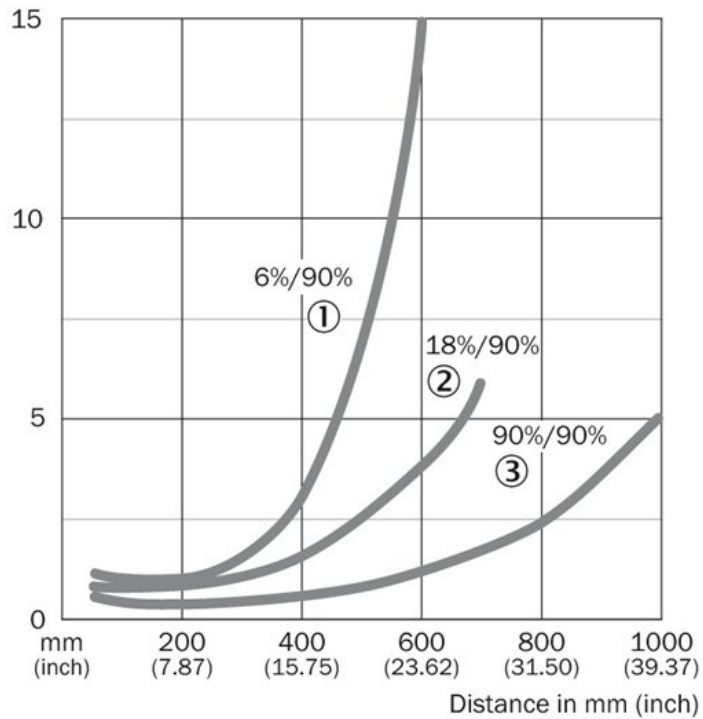
Dimensional drawing



Connection diagram

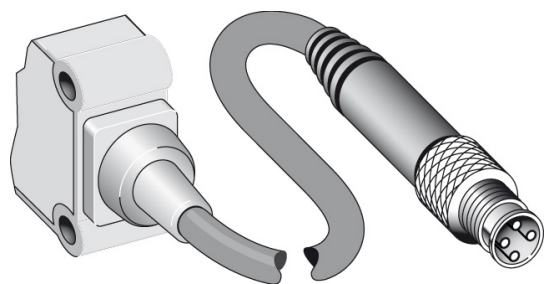


Characteristic curve

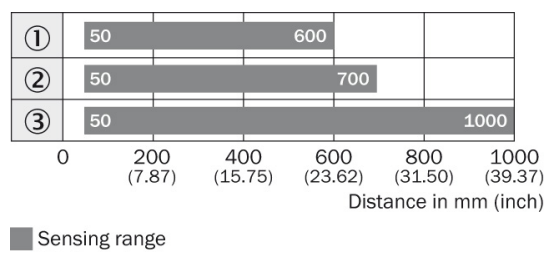


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on grey, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



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