



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

WT18-3P430S40



Model Name > **WT18-3P430S40**
Part No. > **1055350**



Illustration may differ

Your benefits

- Outstanding sensor performance in small housings
- Reliable object detection of difficult targets using best-in-class technology
- A wide range of different sensor housings and connection systems ensures optimal integration of sensors in the system
- Many options for protective housings - super tough VISTAL™, metal or highly resistant plastic, ensures that the sensor can be installed without damage
- Wide range of accessories ensures easy installation, quick commissioning and maximum sensor performance for varying application needs



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:	10 mm ... 381 mm ¹⁾
Type of light:	Visible red light
Light source:	LED ²⁾
Light spot size (distance):	Ø 15 mm (300 mm)
Continuous threshold adaption:	-

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033)

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

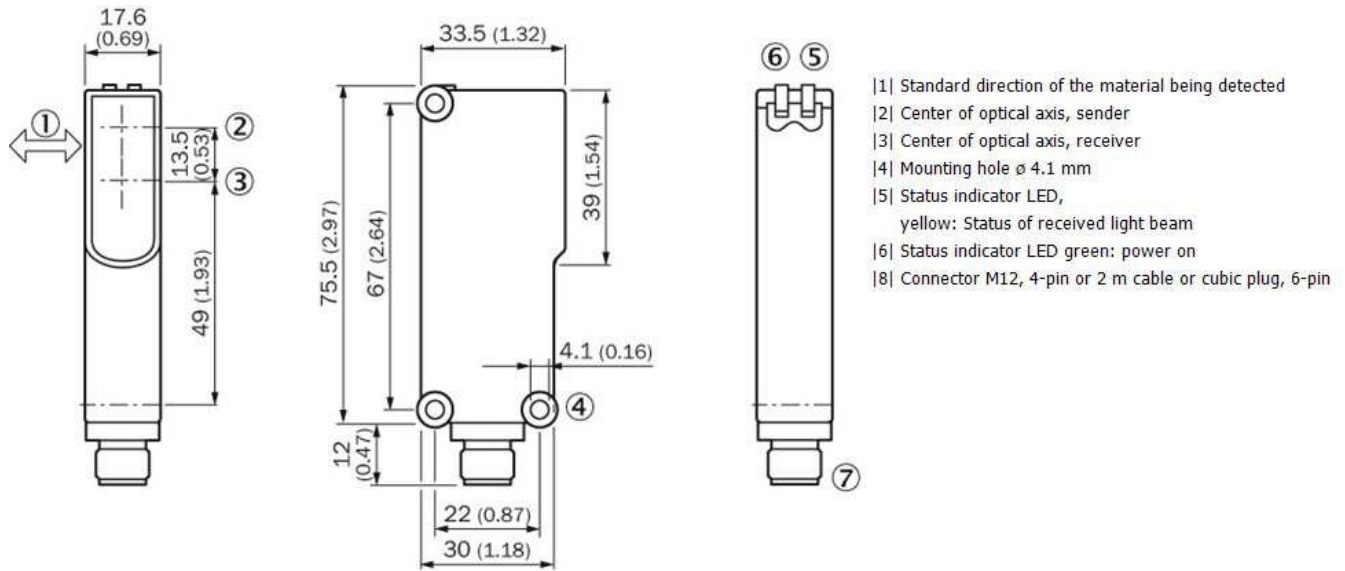
Mechanics/electronics

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:	< 700 µs ⁴⁾
Switching frequency:	700 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Weight:	40 g
Housing material:	ABS, Plastic
Optics material:	PMMA

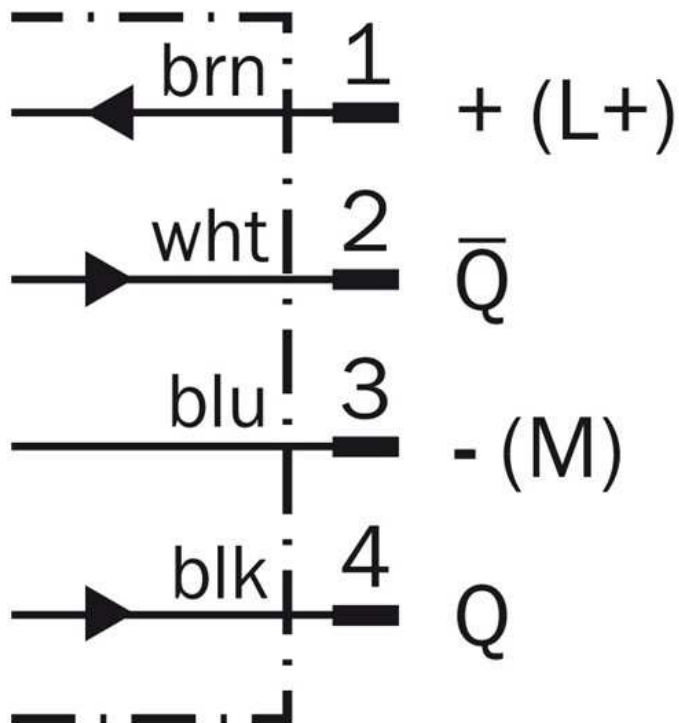
Enclosure rating: IP 67
 Ambient operating temperature: -40 °C ... +60 °C
 Ambient storage temperature: -40 °C ... +75 °C
 UL File No.: NRKH.E181493 & NRKH7.E181493

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) $A = V_S$ connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

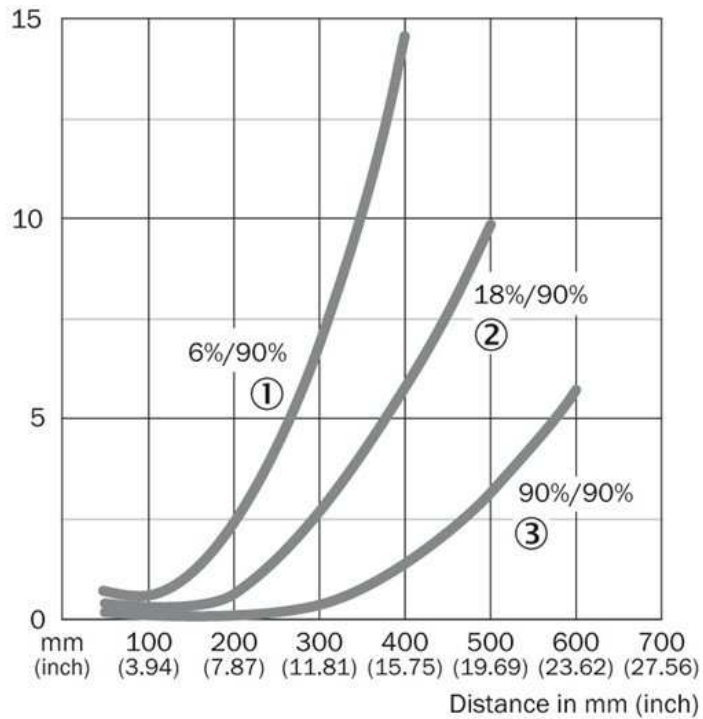
Dimensional drawing



Connection diagram

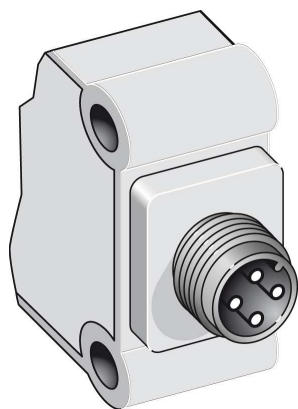


Characteristic curve

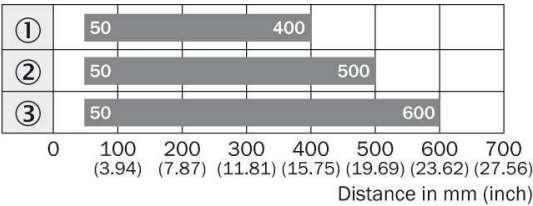


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



■ Sensing range

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

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