

ONLINE DATA SHEET
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Photoelectric sensors
G2S, Photoelectric proximity sensor, Background suppression

GTB2S-P5311



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Model Name > GTB2S-P5311
Part No. > 1062872





Illustration may differ

At a glance

- Reliable detection of black and white objects at distances up to 15 mm
- Background blanking from 18 mm
- Laser-type light spot 2 mm in diameter at a distance of 8 mm

Your benefits

- Faster machine cycles due to the brilliant, small light spots that allow accurate switching points and small gaps between objects
- Universal use, since the sensors detect objects independent of their remission, object contours and backgrounds
- High throughput and less downtime due to the sensor's ability to suppress active and passive interference in industrial environments.
- The 45-degree tilted cable entry offers maximum installation flexibility with additional soft rubber bearings to absorb vibrations and tensile loads
- The powerful PinPoint LED permits reliable detection of jet-black and poorly reflective objects

Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	7.7 mm x 21.8 mm x 13.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	1 mm ... 18 mm [1]
Sensing range:	4 mm ... 15 mm [2]
Type of light:	Visible red light
Light source:	PinPoint LED [3]
Wave length:	640 nm
Light spot size (distance):	Ø 2 mm (8 mm)
Background suppression typ. from:	20 mm

[1] Object with 90 % reflectance (referred to standard white, DIN 5033) [2] Object with 6 % remission [3] Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

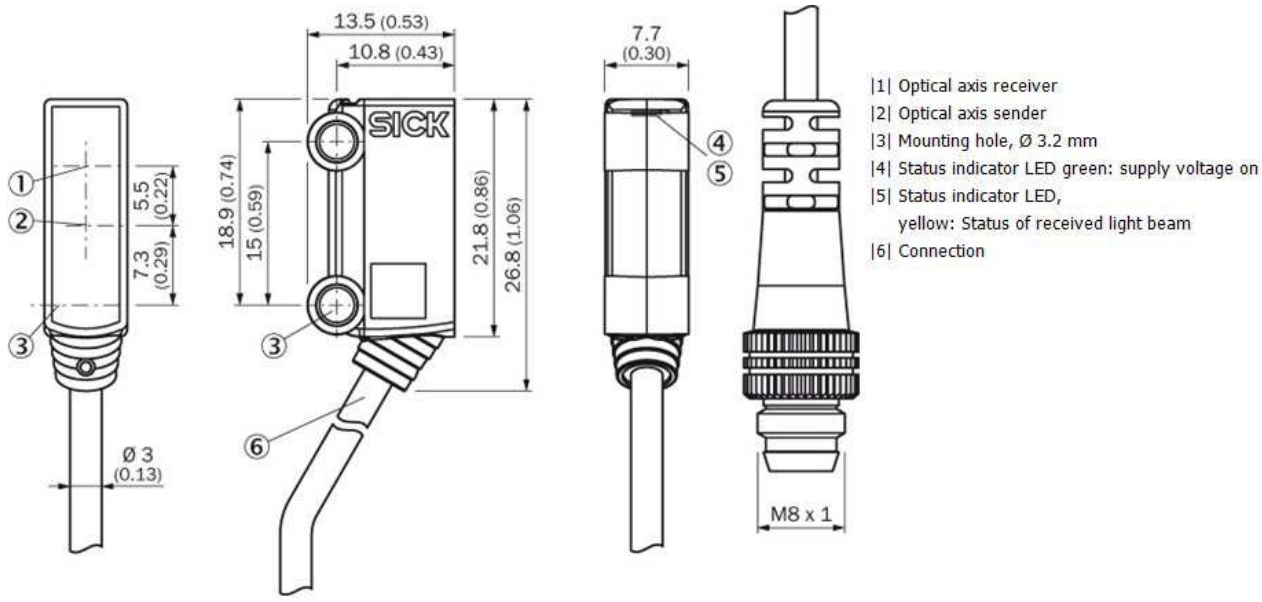
Supply voltage:	10 V DC ... 30 V DC [1]
Ripple:	≤ 5 Vpp [2]
Power consumption:	≤ 20 mA [3]
Output type:	PNP
Switching mode:	Light switching
Output current Imax.:	< 50 mA

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Response time:	< 0.6 ms [4)]
Switching frequency:	800 Hz [5)]
Connection type:	Cable with connector M8, 3-pin, 200 mm [6)]
Cable diameter:	Ø 3 mm
Circuit protection:::	A, C, D [7) 8) 9)]
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient temperature operation:	-25 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493
Housing material:	ABS, Plastic

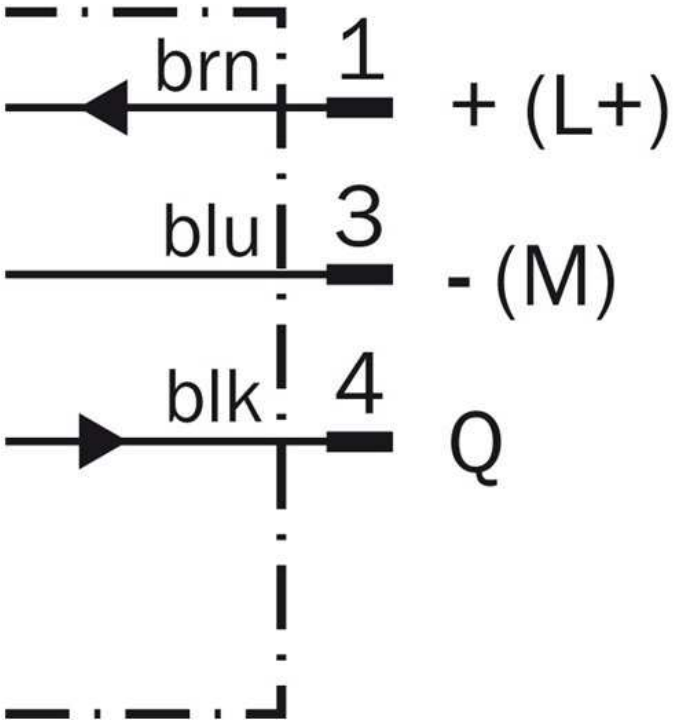
[1)] Limit values, operation in short-circuit protected network max. 8 A [2)] May not exceed or fall short of V_S tolerances [3)] Without load [4)] Signal transit time with resistive load [5)] With light/dark ratio 1:1 [6)] Do not bend below 0 °C [7)] A = V_S connections reverse-polarity protected [8)] C = interference suppression [9)] D = outputs overcurrent and short-circuit protected

Dimensional drawing

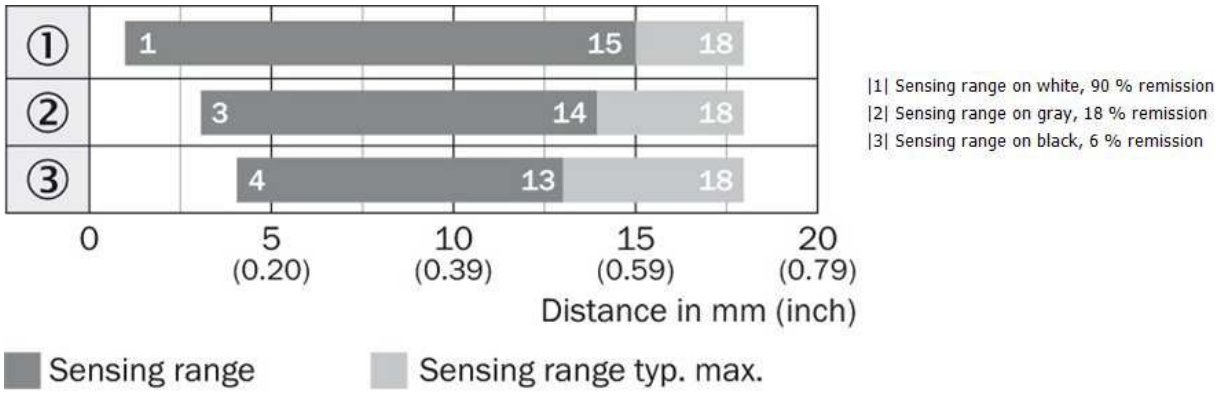


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Connection diagram



Sensing range diagram

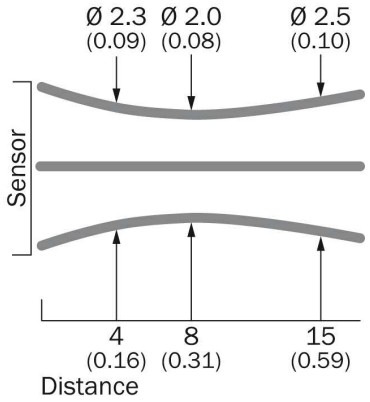


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Connection type



Light spot size



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