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Product data sheet



GTB2S-F5331

G2

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

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MINIATURE PHOTOELECTRIC SENSORS



Illustration may differ

Ordering information

Type	Part no.
GTB2S-F5331	1064353

Other models and accessories → www.sick.com/G2

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	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 ... 36 mm [1]
Sensing range	5 mm ... 30 mm [2]
Background suppression typ. from	38 mm
Type of light	Visible red light
Light source	PinPoint LED [3]
Light spot size (distance)	Ø 3 mm (15 mm)
Wave length	640 nm
Adjustment	None
Special applications	Detecting small objects

[1] Object with 90% remission (based on standard white, DIN 5033).
[2] Object with 6 % remission.
[3] Average service life: 100,000 h at T_U = +25 °C.

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Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	20 mA [3]
Switching output	PNP
Switching mode	Dark switching
Output current $I_{max.}$	≤ 50 mA
Response time	< 0.6 ms [4]
Switching frequency	800 Hz [5]
Connection type	Cable with connector M8, 3-pin, 200 mm [6]
Cable material	PVC
Cable diameter	Ø 3 mm
Circuit protection	A [7] C [8] D [9]
Weight	17.5 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +50 °C
Ambient temperature, storage	–40 °C ... +75 °C
UL File No.	NRKH.E181493

[1] Limit values when operated in short-circuit protected network: max. 8 A.
[2] May not exceed or fall below U_V 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.

Safety-related parameters

$MTTF_D$	3,487 years
DC_{avg}	0 %

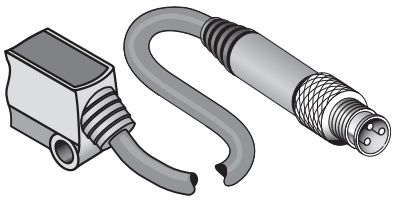
Classifications

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eCl@ss 5.1.4	27270904
eCl@ss 6.0	27270904
eCl@ss 6.2	27270904
eCl@ss 7.0	27270904
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eCl@ss 8.1	27270904

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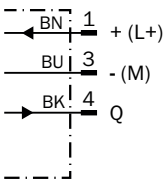
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eCl@ss 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection type



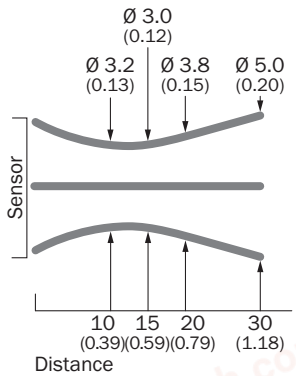
Connection diagram

Cd-045



Light spot size

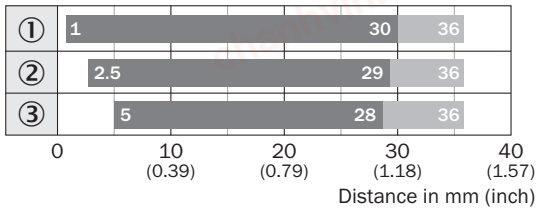
GTB2S, 30 mm



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Sensing range diagram

GTB2S, 30 mm

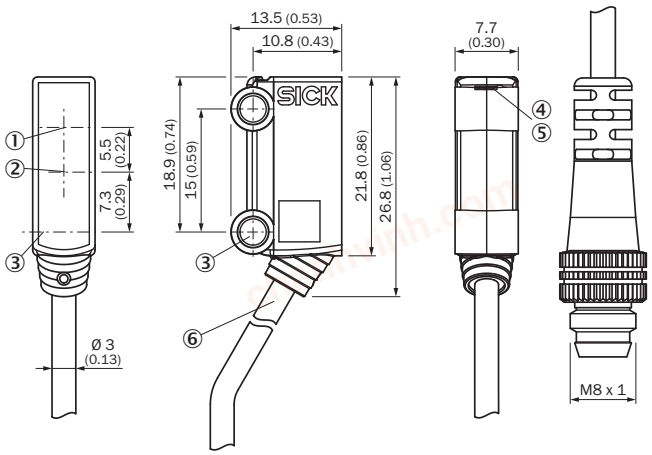


Sensing range Sensing range max.

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

Dimensional drawing (Dimensions in mm (inch))

GTB2S, 15 mm, 30 mm



① Optical axis, receiver
② Optical axis, sender
③ Mounting hole, Ø 3.2 mm
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam
⑥ Connection

Recommended accessories

Other models and accessories → www.sick.com/G2

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884

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	Brief description	Type	Part no.
	Head A: male connector, M8, 3-pin, straight Cable: unshielded	STE-0803-G	6037322

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SICK AT A GLANCE

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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