Product data sheet

HTE18B-L1G1AB

SureSense

HYBRID PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
HTE18B-L1G1AB	1101656

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

Detailed technical data

Features

Device version	Bottom Mount
Sensor/ detection principle	Photoelectric proximity sensor, Energetic
Dimensions (W x H x D)	16.2 mm x 50.1 mm x 34.4 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Mounting system type	M18, nose / M18, base / side (24.1 ... 25.4 mm)
Housing color	Blue
Sensing range max.	5 mm ... 1,000 mm [1]
Sensing range	10 mm ... 250 mm [2]
Type of light	Infrared light
Light source	LED [3]
Light spot size (distance)	110 mm (800 mm)
Wave length	850 nm
Adjustment	
Potentiometer, right	Sensitivity
Potentiometer, left	None
Special features	-

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

Mechanics/electronics

Supply voltage	21.6 V DC ... 250 V DC, 96 V AC ... 250 V AC [1]
Current consumption	10 mA [2]
Switching output	MOSFET
Switching mode	Light switching
Switching output detail	
Switching output Q1	MOSFET, Light switching
Output current $I_{max.}$	≤ 100 mA
Response time	≤ 0.5 ms [3]
Switching frequency	1,000 Hz [4]
Connection type	Cable open end, 2,000 mm
Cable material	PVC
Conductor cross-section	0.2 mm²
Circuit protection	A [5] B [6] D [7]
Protection class	II [8]
Weight	18 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP69K
Items supplied	Mounting nut (1x), M18, plastic, black, flat
EMC	EN 60947-5-2 (The sensor complies with the Radio Safety Requirements (EMC) for the industrial sector (Radio Safety Class A). It may cause radio interference if used in a residential area.)
Ambient operating temperature	–40 °C ... +70 °C
Ambient storage temperature	–40 °C ... +75 °C
UL File No.	E189383

[1] Above T_a = 60 °C, max. supply voltage = 120 V.
[2] Without load. The output load and sensor must use the same power source.
[3] Signal transit time with resistive load.
[4] With light/dark ratio 1:1.
[5] A = V_S connections reverse-polarity protected.
[6] B = inputs and output reverse-polarity protected.
[7] D = outputs overcurrent and short-circuit protected.
[8] Reference voltage: 250 V AC, overvoltage category 2.

Classifications

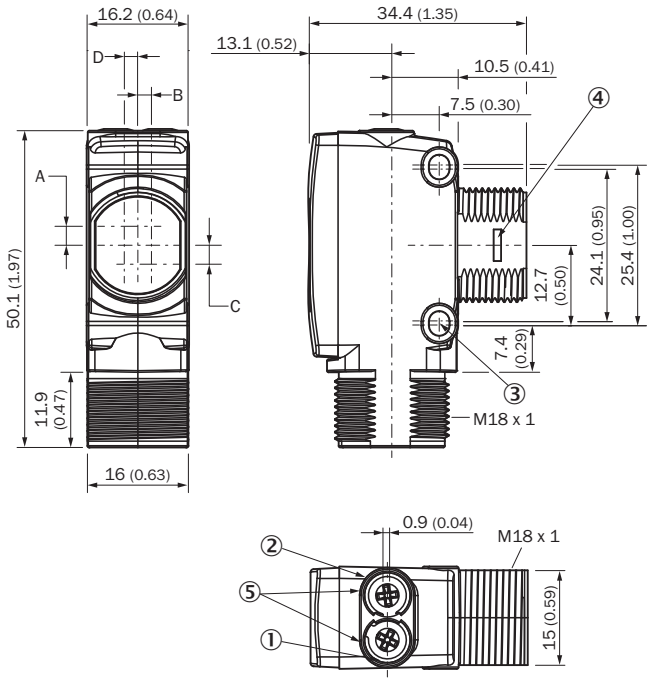
ECl@ss 5.0	27270903
ECl@ss 5.1.4	27270903
ECl@ss 6.0	27270903
ECl@ss 6.2	27270903
ECl@ss 7.0	27270903
ECl@ss 8.0	27270903
ECl@ss 8.1	27270903

ECl@ss 9.0	27270903
ECl@ss 10.0	27270903
ECl@ss 11.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection/PIN assignment

Connection type	Cable open end, 2,000 mm
Connection type Detail	
Cable material	PVC
Conductor cross-section	0.2 mm²
PIN assignment	
BN	L1
BU	N
BK	Q

Dimensional drawing (Dimensions in mm (inch))



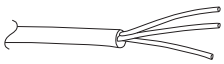
① LED indicator yellow: Status of received light beam
② LED indicator green: power on
③ M3 mounting hole
④ Snap Connection for flush ring (sold seperatly)
⑤ Potentiometer (if selected) or LED Indicators

Dimensions in mm (inch)	Receiver		Sender	
	A	B	C	D
HTB18 / HTF18	- 1.1 (0.04)	1.1 (0.04)	4.7 (0.19)	0.6 (0.02)

Dimensions in mm (inch)	Receiver		Sender	
HTE18 / HL18 / HSE18	2.5 (0.1)	0.0 (0.0)	4.0 (0.16)	0.0 (0.0)

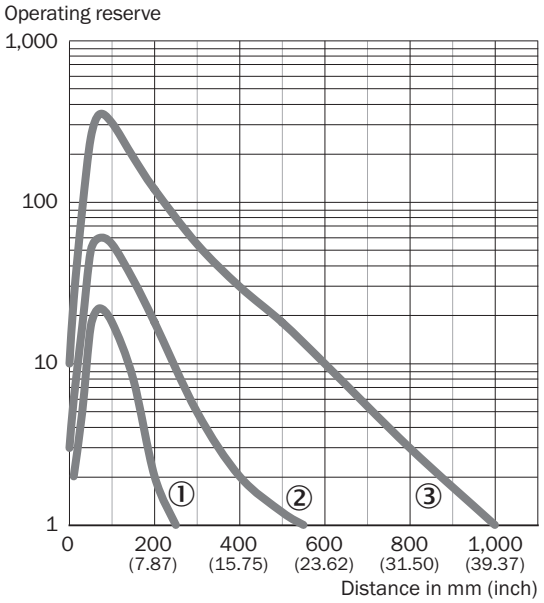
Connection type

See table: Connection/PIN assignment



Characteristic curve

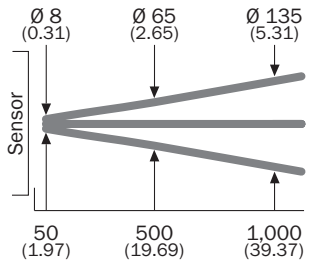
Infrared light



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

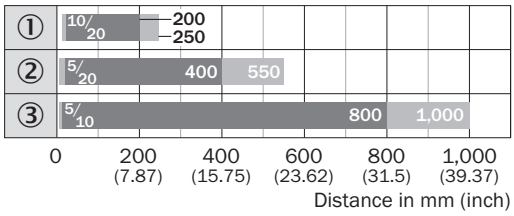
Light spot size

Infrared light



Sensing range diagram

Infrared light



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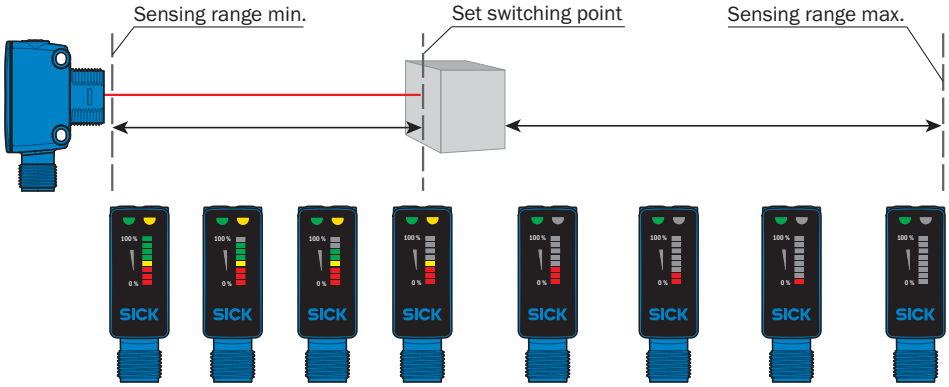
Functions



SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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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Contacts and other locations –www.sick.com