



HTE18B-L1G1AB

H18 Sure Sense

HYBRID PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
HTE18B-L1G1AB	1101656

Other models and accessories → www.sick.com/H18_Sure_Sense

Detailed technical data

Features

Functional principle		Photoelectric proximity sensor
Functional principle detail		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, head/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% remission (based on 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 mm ²
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	Fastening nut (1x), M18, plastic, black, flat
Electromagnetic compatibility (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 temperature, storage	-40 °C ... +75 °C
UL File No.	E189383

¹⁾ From T_u 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

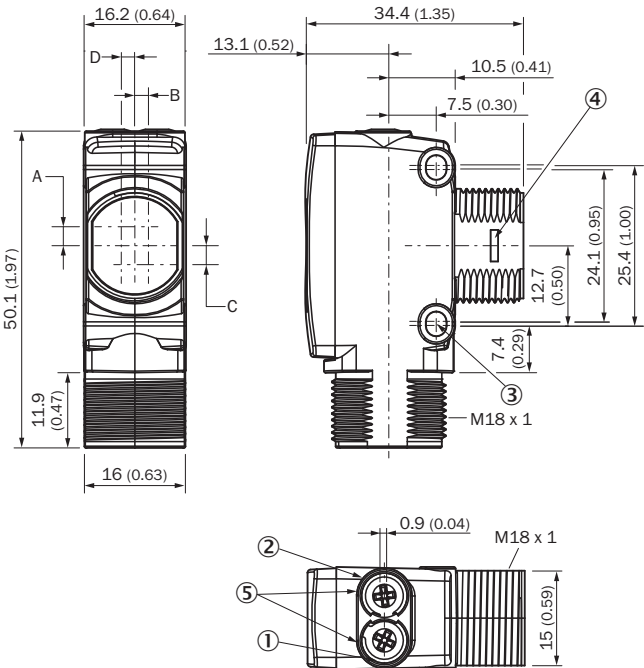
ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903

ECLASS 9.0	27270903
ECLASS 10.0	27270903
ECLASS 11.0	27270903
ECLASS 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/pinouts

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

Dimensional drawing (Dimensions in mm (inch))

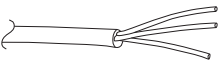


- ① LED indicator yellow: Status of received light beam
- ② LED indicator green: power on
- ③ M3 mounting hole
- ④ Snap Connection for flush ring (sold separately)
- ⑤ Potentiometer (if selected) or LED Indicators

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)
HTE18 / HL18 / HSE18	2.5 (0.1)	0.0 (0.0)	4.0 (0.16)	0.0 (0.0)

Connection type

Pinouts, see Technical details: **Connection type/pinouts**

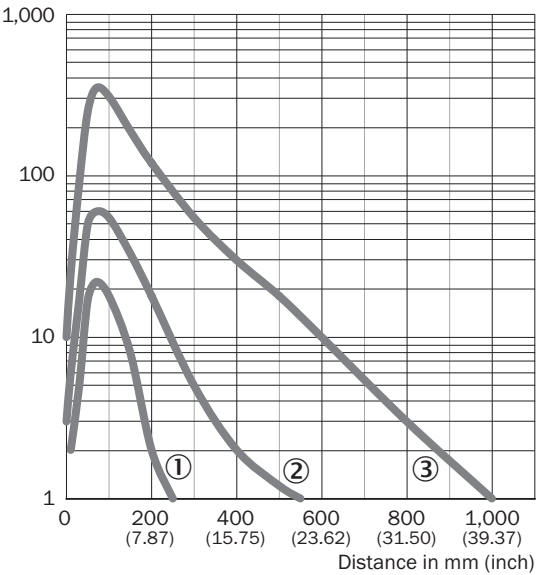


Cable, 3-wire

Characteristic curve

Infrared light

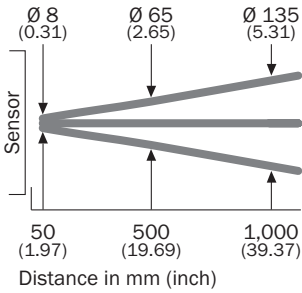
Operating reserve



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

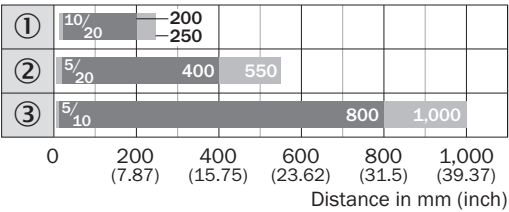
Light spot size

Infrared light



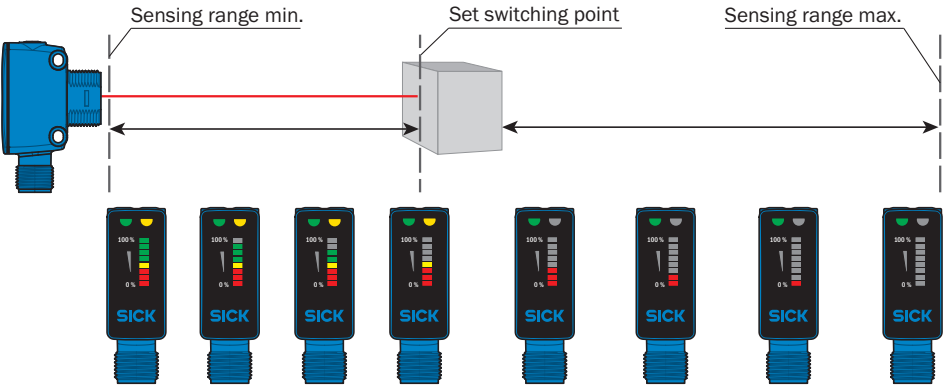
Sensing range diagram

Infrared light



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

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.”

WORLDWIDE PRESENCE:

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