Data sheet

WLL170T-2P192

WLL170

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
WLL170T-2P192	6033954

Included in delivery: BEF-WLL170 (1)

Other models and accessories → www.sick.com/WLL170

Detailed technical data

Features

Device type	Fiber-optic amplifier
Dimensions (W x H x D)	10.5 mm x 35.5 mm x 83.7 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 mm ... 1,600 mm (Through-beam system) [1]
Sensing range	0 mm ... 35 mm, Proximity system [2] [3] 0 ... 270 mm, Through-beam system [4]
Focus	Approx. 65° [5]
Type of light	Visible green light
Light source	LED [6]
Angle of dispersion	Approx. 65° [5]
Wave length	525 nm
Adjustment	Single teach-in button Cable
Indication	LED

[1] LL3-TB02 and tip adapter LL3-TA01.
[2] Objects to be sensed with 90% reflectivity (based on DIN 5033 white standard). Sensing range depends on fiber-optic cable.
[3] LL3-DM01.
[4] LL3-TB01.
[5] See LL3 fiber-optic data.
[6] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	10 % [2]
Current consumption	30 mA [3]
Switching output	PNP
Number of switching outputs	1
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Response time	≤ 250 µs [4]
Switching frequency	2,000 Hz [5]
Time functions	Off delay
Delay time	Selectable by sliding switch, ≤ 40 ms
Input	Teach-in input
Connection type	Cable, 4-wire, 2 m [6]
Cable material	Plastic, PVC
Conductor cross section	0.2 mm²
Circuit protection	A [7] B [8] C [9] D [10]
Protection class	III
Weight	60 g
Housing material	Plastic, ABS
Enclosure rating	IP66 [11]
Items supplied	BEF-WLL170 mounting bracket
Ambient operating temperature	–25 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C
UL File No.	NRKH.E300503 & NRKH7.E300503

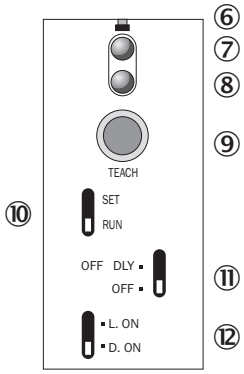
[1] Limit values.
[2] May not fall below or exceed U_V tolerances.
[3] Without load.
[4] Signal transit time with resistive load.
[5] With light/dark ratio 1:1.
[6] Do not bend below 0 °C.
[7] A = V_S connections reverse-polarity protected.
[8] B = inputs and output reverse-polarity protected.
[9] C = interference suppression.
[10] D = outputs overcurrent and short-circuit protected.
[11] With correctly attached fibre-optic cable LL3 and closed protection hood.

Classifications

ECLASS 5.0	27270905
ECLASS 5.1.4	27270905
ECLASS 6.0	27270905
ECLASS 6.2	27270905

ECLASS 7.0	27270905
ECLASS 8.0	27270905
ECLASS 8.1	27270905
ECLASS 9.0	27270905
ECLASS 10.0	27270905
ECLASS 11.0	27270905
ECLASS 12.0	27270905
ETIM 5.0	EC002651
ETIM 6.0	EC002651
ETIM 7.0	EC002651
ETIM 8.0	EC002651
UNSPSC 16.0901	39121528

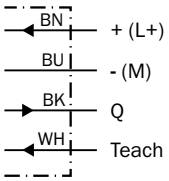
Adjustments WLL170T-2



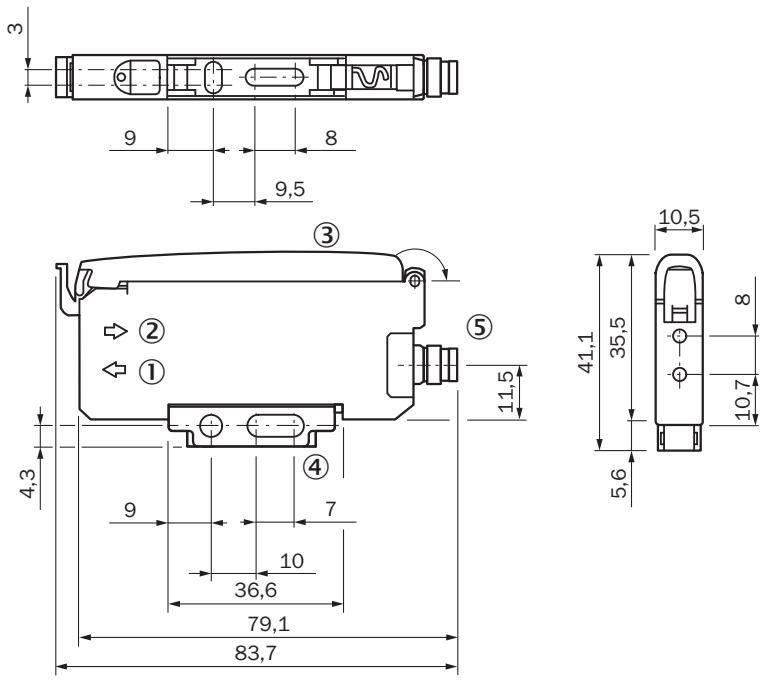
⑥ indicating pin correctly inserted LL3 fiber
⑦ LED indicator orange: switching output active
⑧ LED signal strength indicator green, lights up, when light received< 0.9 or >1.1 (switching threshold = 1)
⑨ Teach-in button
⑩ Operating mode selector switch:"SET" (Teach-in mode) /"RUN" (sensor mode)
⑪ OFF delay selector switch: “OFF DLY” (on)/“OFF” (off), 40 ms fixed
⑫ Selector switch: "L.ON" (light switching) /"D.ON" (dark switching)

Connection type

Connection diagram Cd-093



Dimensional drawing WLL170T-2



Dimensions in mm (inch)
① Sender LED, installation of LL3 fibre-optic cable (sender fibre)
② Receiver, installation of LL3 fibre optic cable (receiver fibre)
③ Protective hood, can be raised at both ends
④ Mounting bracket, included with delivery
⑤ Connection

Recommended accessories

Other models and accessories ➜ www.sick.com/WLL170

	Brief description	Type	part no.
Mounting systems			
	• **Description:** Mounting bracket • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Without mounting hardware • **Suitable for:** WLL170-2, WLL190-2	BEF-WLL170	5306574
	• **Description:** Rail end piece for block mounting • **Material:** Stainless steel • **Details:** Stainless steel • **Items supplied:** Mounting hardware included	BEF-EB01-W190	5313011

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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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