Online data sheet

WLL170T-2N192

WLL170-2

FIBER-OPTIC SENSORS AND FIBERS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
WLL170T-2N192	6033957

Other models and accessories → www.sick.com/WLL170-2

Detailed technical data

Features

Sensor/detection principle	Fiber-optic photoelectric sensor
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	[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
Time type	Off delay
Delay time	Selectable by sliding switch, 40 ms
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	10 V DC ... 30 V DC [1]
Ripple	10 % [2]
Power consumption	≤ 30 mA [3]
Output type	NPN
Number of switching outputs	1
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Output current $I_{max.}$	≤ 100 mA
Response time	≤ 250 µs [4]
Switching frequency	2,000 Hz [5]
Input	Teach-in input
Connection type	Cable, 4-wire, 2 m [6]
Cable material	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 storage temperature	–40 °C ... +70 °C
UL File No.	NRKH.E300503 & NRKH7.E300503

[1] Limit values.
[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] 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

ECl@ss 5.0	27270905
ECl@ss 5.1.4	27270905
ECl@ss 6.0	27270905
ECl@ss 6.2	27270905
ECl@ss 7.0	27270905

ECl@ss 8.0	27270905
ECl@ss 8.1	27270905
ECl@ss 9.0	27270905
ETIM 5.0	EC002651
ETIM 6.0	EC002651
UNSPSC 16.0901	39121528

Adjustments possible

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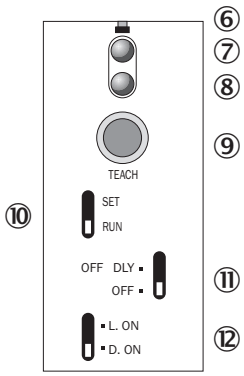
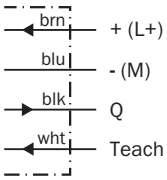


⑥ Indicating pin correctly inserted LL3 fiber
⑦ LED indicator orange: switching output active
⑧ LED signal strength indicator green, lights up, when light received< 0.9 or >1.1 (switching threshold = 1)
⑨ Teach-in button
⑩ Operating mode selector switch:"SET" (Teach-in mode) /"RUN" (sensor mode)
⑪ OFF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

Connection diagram

Cd-093



Dimensional drawing (Dimensions in mm (inch))

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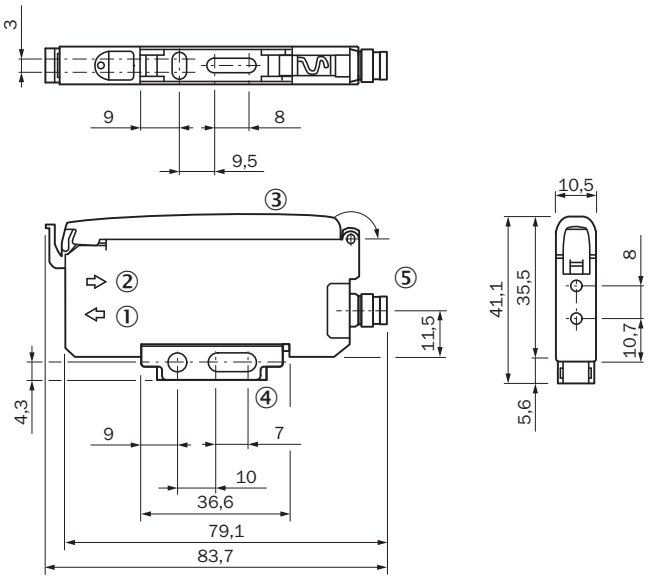

① Sender LED, installation of LL3 fibre-optic cable (sender fibre)
② Receiver, installation of LL3 fibre optic cable (receiver fibre)
③ Protective hood, can be raised at both ends
④ Mounting bracket, included with delivery
⑤ Connection

Recommended accessories

Other models and accessories ➜ www.sick.com/WLL170-2

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, without mounting hardware	BEF-WLL170	5306574
Other mounting accessories			
	Rail end piece for block mounting, Stainless steel, mounting hardware included	BEF-EB01-W190	5313011
	Cutter for fibers, supplied with LL3	FC	5304141

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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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