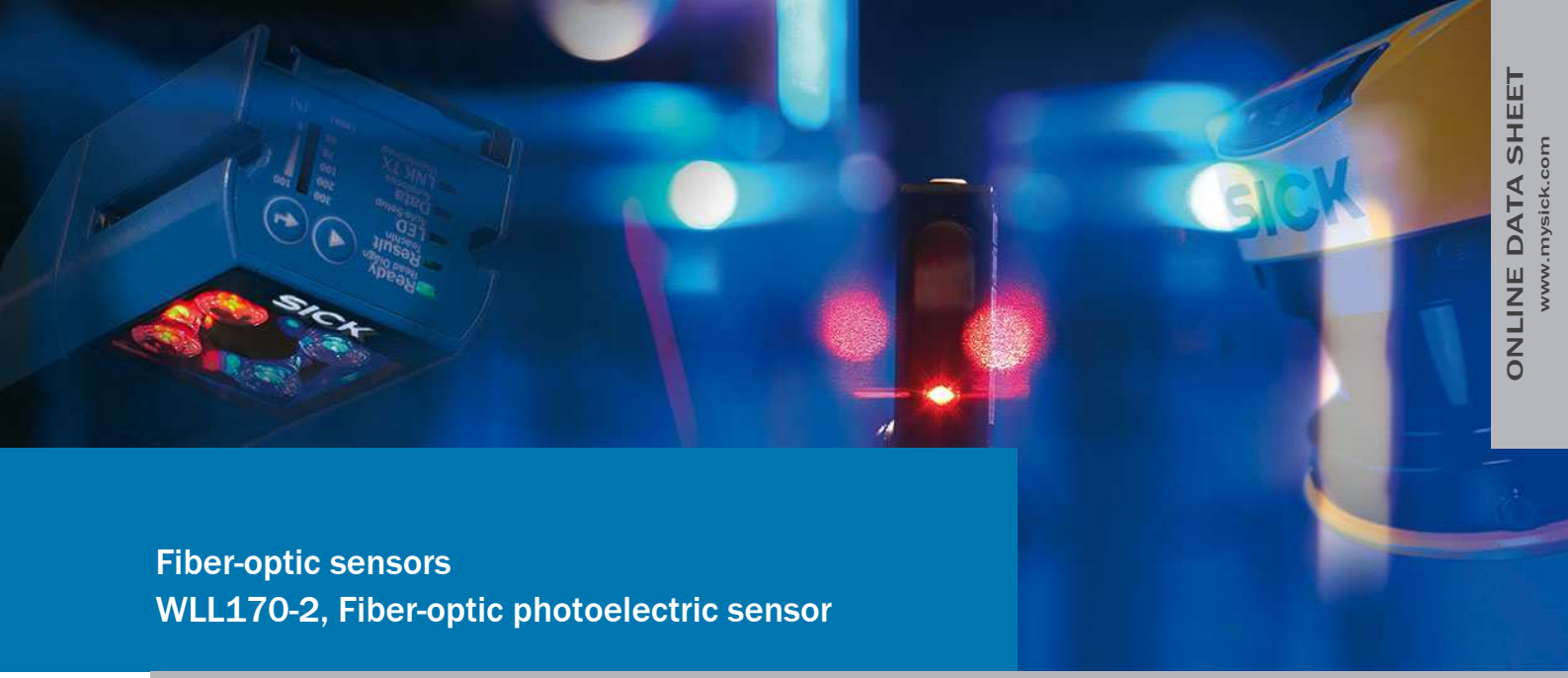


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Fiber-optic sensors
WLL170-2, Fiber-optic photoelectric sensor

WLL170-2P330



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Fiber-optic sensors
WLL170-2, Fiber-optic photoelectric sensor

Model Name > WLL170-2P330
Part No. > 6029513

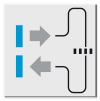




Illustration may differ

At a glance

- Rapid response time (50 µs)
- Switching threshold adjustment via potentiometer, or teach-in via button or cable
- Four different teach-in modes
- Simple installation
- Red or green LED emitter

Your benefits

- Reliable, rapid process detection
- Low installation costs due to short commissioning time
- Flexible teach-in modes allow the sensor to be customized according to the specific application
- Emitted light ideal for color or contrast detection
- Easy programming via simple potentiometer and switch adjustment

Features

Dimensions (W x H x D):	10.5 mm x 35.5 mm x 83.7 mm
Sensing range max.:	0 mm ... 4,000 mm, through-beam system [1]
Sensing range:::	0 mm ... 160 mm, proximity system, 0 mm ... 700 mm, through-beam system [2] [3] [4]
Light source:	LED [5]
Type of light:	Visible red light
Wave length:	660 nm
Sensitivity adjustment:	Potentiometer, 10-turn
Time type:	Off-delayed
Delay time:	Selectable by sliding switch: ≥40 ms
Indication:	LED
Sensor/detection principle:	Fiber-optic photoelectric sensor
Angle of dispersion:	Ca. 65 °
Housing design (light emission):	Rectangular

Scale 270°;

[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-DK06 [4] LL3-TB01 [5] Average service life of 100,000 h at T_A = +25 °C

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Mechanics/electronics

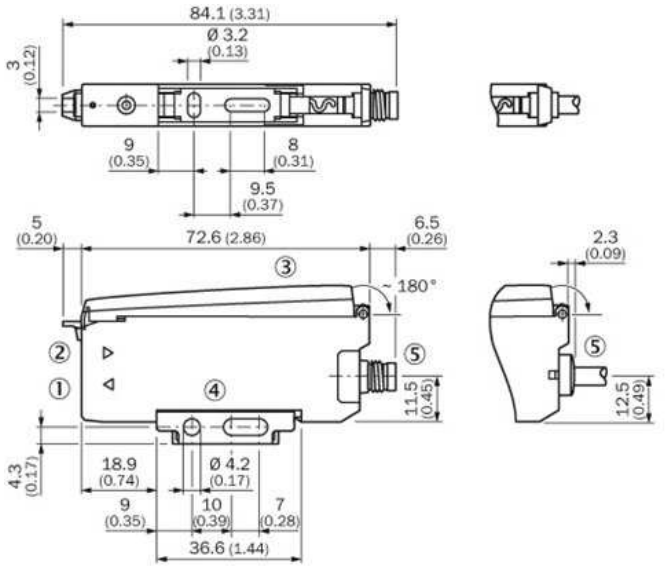
Enclosure rating:	IP 66 [1)]
Supply voltage:	10 V DC ... 30 V DC [2)]
Residual ripple:	10 % [3)]
Power consumption:	≤ 30 mA [4)]
Output type:	PNP, Light/dark-switching, selectable via light/dark selector, open collector
Output current Imax.:	≤ 100 mA
Response time:	≤ 0.25 ms [5)]
Switching frequency:	2,000 Hz [6)]
Electrical connection:	Connector M8, 3-pin
Protection class:	III
Circuit protection::::	A, B, C, D [7) 8) 9) 10)]
Housing material:	ABS/PC
Ambient temperature operation:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

See LL3 fiber-optic data;

[1)] With correctly attached fibre-optic cable LL3 and closed protection hood [2)] Limit values [3)] May not exceed or fall short of V_S tolerances [4)] Without load [5)] Signal transit time with resistive load [6)] With light/dark ratio 1:1 [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

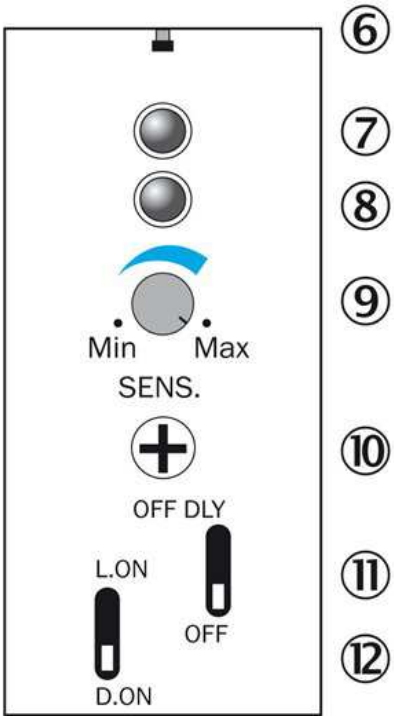
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Dimensional drawing



|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
|5| Connection

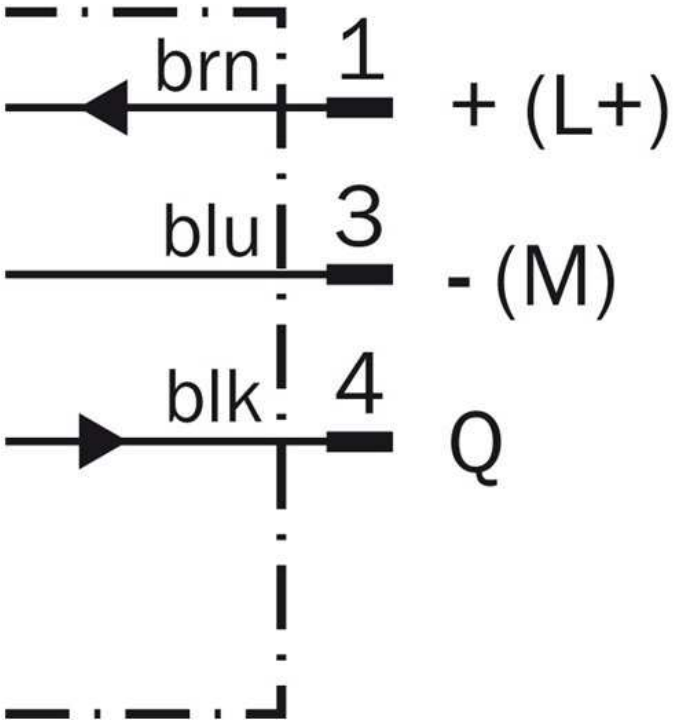
Adjustments possible



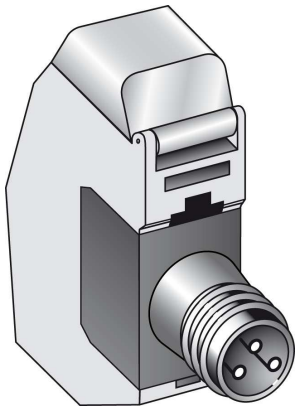
|6| Indication of correct fibre-optic cable mounting
|7| LED indicator orange, lights
up when switching output is acitve
|8| LED signal strength indicator
green, lights up, when ligh
t received< 0.9 or >1.1 (switching threshold = 1)
|9| Sensitivity sclae 270°
|10| Sensitivity control (10 revolutions)
|11| L.ON/ d.ON selection
switch."OFF DLY" (on) / "OFF", 40 ms fixed
|12| Selector switch: "L.ON" (
light-switching) /"D.ON" (dark-switching)

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Connection diagram



Connection type



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