



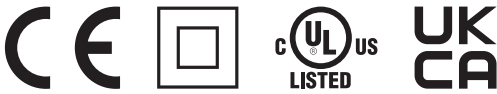
Thru-beam sensor

LD31/LV31-6559/25/38/115

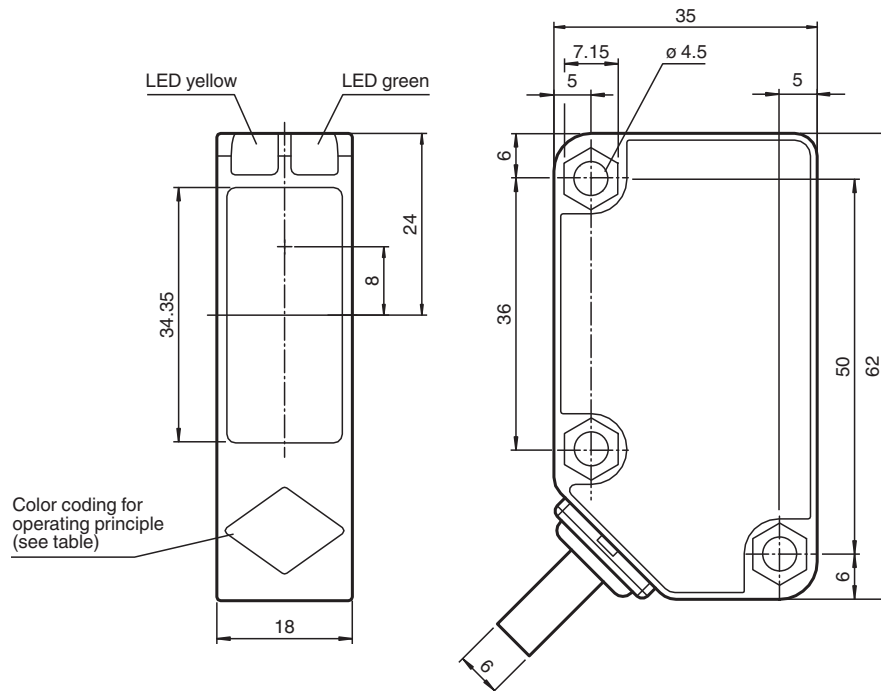


- Operating voltage DC
- Highly visible LED
- Protection class II
- Relay output
- Compact and stable housing

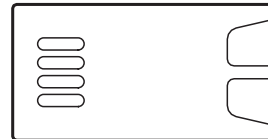
Thru-beam sensor, 30 m detection range, red light, light on, DC version, relay contact output, fixed cable



Dimensions



Operating principle	color
Retroreflective sensor with polarisation filter	green
Retroreflective sensor	blue
Diffusive mode sensor	white
Thru-beam sensor	grey
Diffusive mode sensor with background suppression	red



Technical Data

System components	
Emitter	LD31-6559
Receiver	LV31-6559/25/38
General specifications	
Effective detection range	0 ... 30 m
Threshold detection range	43 m

Release date: 2023-10-13 Date of issue: 2023-10-13 Filename: 271173_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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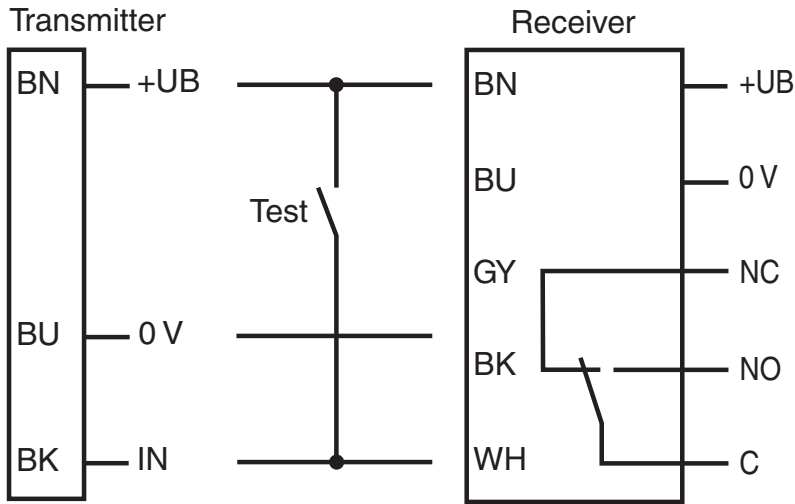
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Technical Data

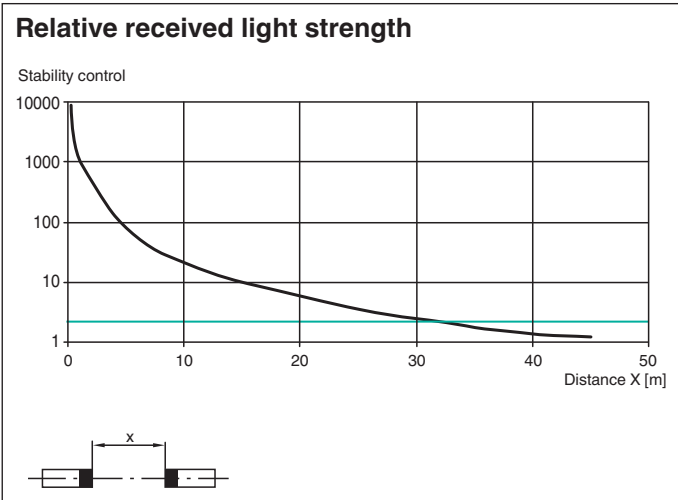
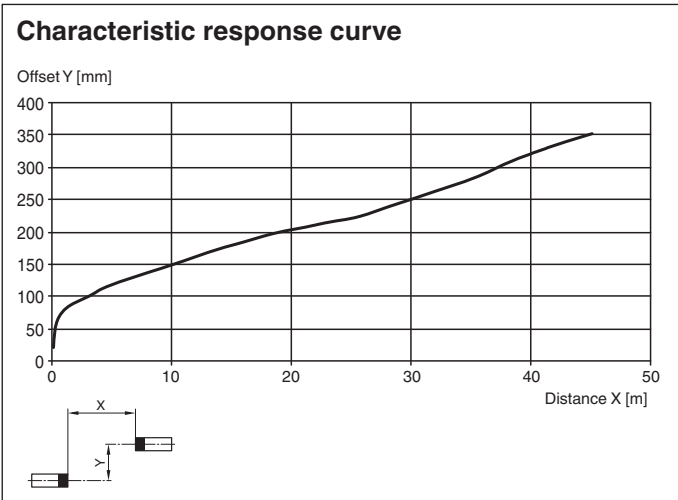
Light source		LED
Light type		modulated visible red light , 630 nm
Alignment aid		LED yellow: 1. LED illuminates: Sufficient light signal received, emitter and receiver alignment is correct 2. LED flashes: Reaching switching point 3. LED off: Light beam is interrupted or the alignment is out
Diameter of the light spot		approx. 800 mm at a distance of 30 m
Opening angle		Emitter: 0.5 ° , Receiver: 1.5 °
Ambient light limit		50000 Lux ; according to EN 60947-5-2
Functional safety related parameters		
MTTF _d		620 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: power on
Function indicator		LED yellow: 1. LED lit constantly: signal > 2 x switching point (function reserve) 2. LED flashes: signal between 1 x switching point and 2 x switching point 3. LED off: signal < switching point
Electrical specifications		
Operating voltage	U _B	12 ... 30 V DC
No-load supply current	I ₀	Emitter: ≤ 18 mA Receiver: ≤ 20 mA
Output		
Switching type		light-on
Signal output		Relay, 1 alternator
Switching voltage		max. 30 V DC
Switching current		max. 1 A
Switching frequency	f	≤ 20 Hz
Response time		≤ 25 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
Protection class		II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC
UL approval		cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Housing width		18 mm
Housing height		62 mm
Housing depth		35 mm
Degree of protection		IP67
Connection		Emitter: 0.5 m , 2-wire Receiver: 0.5 m , 5-wire
Material		
Housing		Polycarbonate
Optical face		PMMA
Mass		Emitter: 80 g Receiver: 100 g

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Connection Assignment



Characteristic Curve







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Accessories

	OMH-RL31-01	Mounting bracket
	OMH-RL31-02	Mounting bracket narrow

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Accessories

	OMH-RL31-03	Mounting bracket narrow
	OMH-RL31-04	Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm
	OMH-RL31-05	Mounting bracket for mounting on flat surfaces with 2 M4 screws
	OMH-RL31-06	Stainless steel mounting bracket with adjustable half clamp on the side