



Model Number

LD39/LV39/32/40a/82a/116

Thru-beam sensor
with terminal compartment

Features

- Pre-fault indication and output (static)
- Light/dark ON, switchable
- Supplied with mounting accessory
- Degree of protection IP67

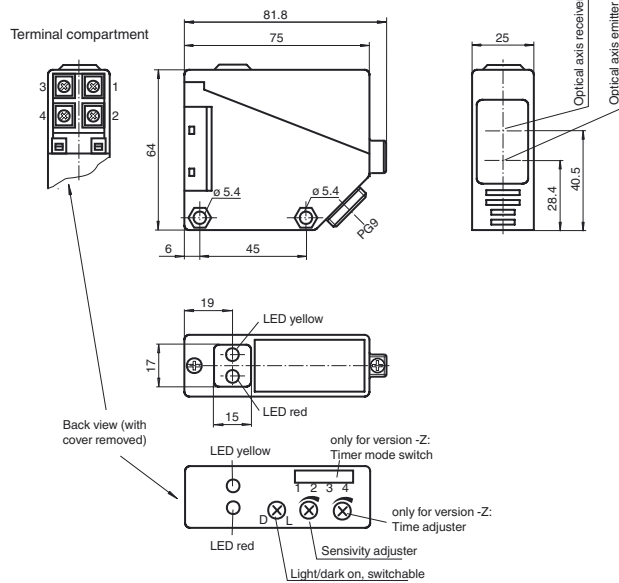
Product information

Series 39 sensors are characterized by their high performance level, compact housing design, and variety of available versions. These include thru-beam sensors with a 20 m detection range, retroreflective sensors with polarization filter for a 5 m detection range, energetic diffuse mode sensors with an 800 mm and 2000 mm detection range, and a background suppression sensor with 500 mm detection range. Fitted in a robust plastic housing, this series is ideal for tough industrial applications.

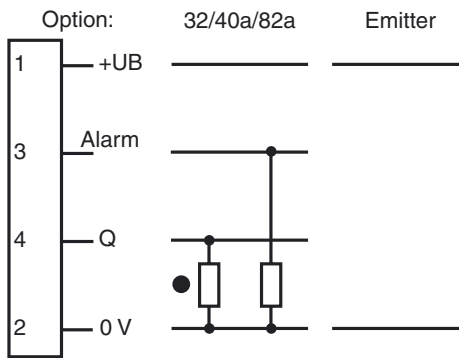
The sensors are supplied with 10 V to 30 V DC, or 24 V to 240 V AC/DC. Various transistor and relay outputs are available as signal outputs. Standard features include pre-fault diagnostics and pre-fault output. The switching element function can be changed using the light/dark switch.

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Dimensions



Electrical connection



- = Light on
- = Dark on

Technical data**System components**

Emitter	LD39/116
Receiver	LV39/32/40a/82a/116

General specifications

Effective detection range	0 ... 20 m
Threshold detection range	30 m
Adjustment range	800 ... 30000 mm
Reference target	receiver
Light source	LED
Light type	modulated infrared light
Ambient light limit	10000 Lux

Functional safety related parameters

MTTF _d	800 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED red (emitter)
Function indicator	LED yellow: switching state (receiver) LED red: pre-fault indicator, flashing (receiver)
Control elements	sensitivity adjustment
Control elements	Light/Dark switch (receiver)

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I ₀	≤ 55 mA (device)
Time delay before availability	t _v	≤ 50 ms

Output

Pre-fault indication output	1 PNP, active when falling short of the stability control	
Switching type	light/dark on	
Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	≤ 30 V DC	
Switching current	≤ 200 mA	
Voltage drop	U _d	≤ 3 V
Switching frequency	f	≤ 300 Hz
Response time		≤ 1.5 ms

Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
Storage temperature	-40 ... 55 °C (-40 ... 131 °F)

Mechanical specifications

Degree of protection	IP67
Connection	terminal compartment PG9, ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	PMMA
Mass	emitter: 90 g receiver: 100 g

General information

Scope of delivery	Mounting aid
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Compliance with standards and directives

Directive conformity	EMC Directive 2004/108/EC
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

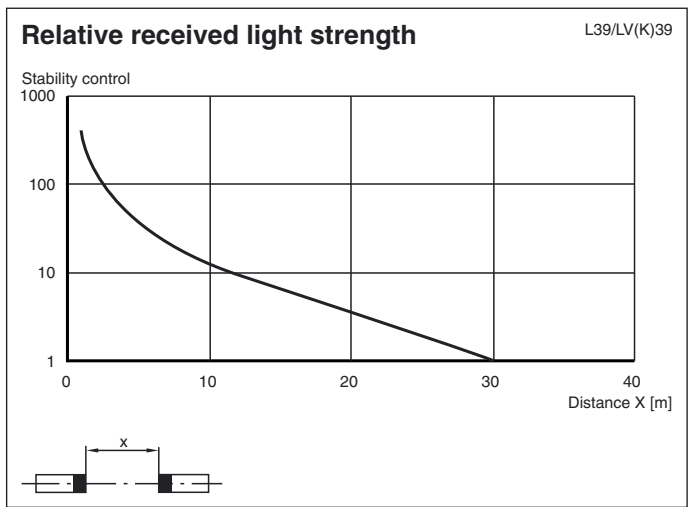
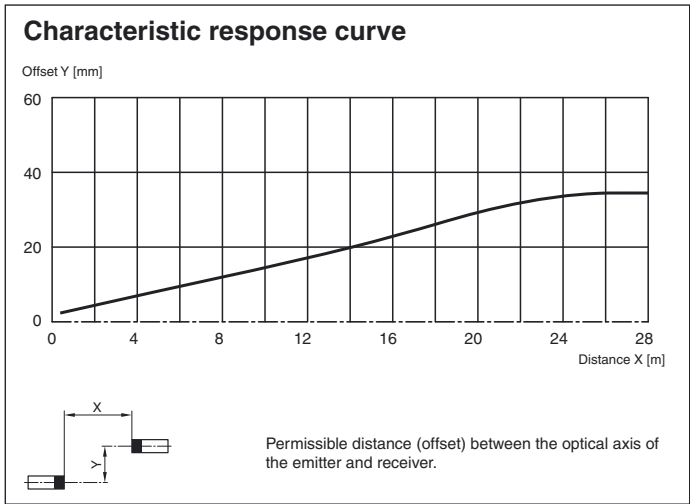
CCC approval	CCC approval / marking not required for products rated ≤36 V
Approvals	CE

Accessories**OMH-RL39**

Mounting bracket for RL39 series Sensors

Other suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams



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

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