



Model Number

LA39/LK39-Z/31/40a/116

Thru-beam sensor
with terminal compartment

Features

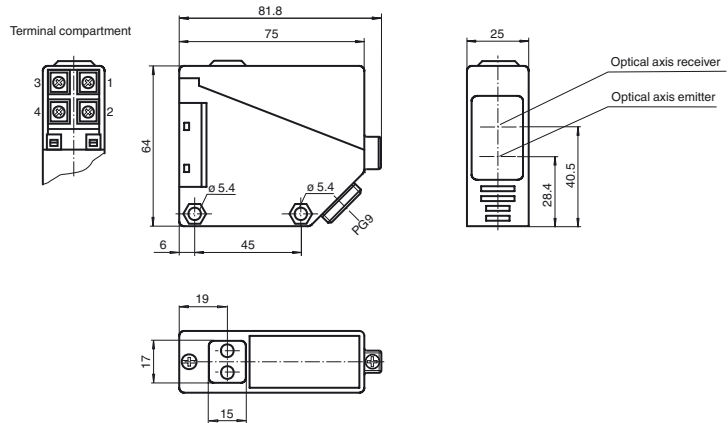
- Light/dark ON, switchable
- Timer function
- Supplied with mounting accessory
- Degree of protection IP67

Product information

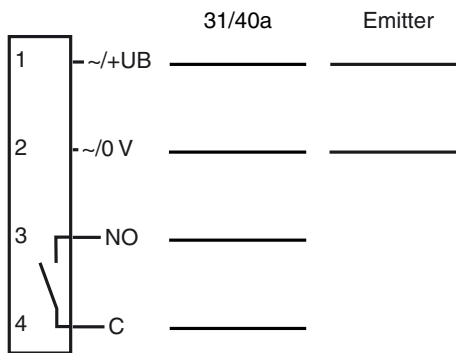
Series 39 sensors are characterized by their high performance level, compact housing design, and variety of available versions. These include thru-beam sensors with a 20 m detection range, retroreflective sensors with polarization filter for a 5 m detection range, energetic diffuse mode sensors with 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.

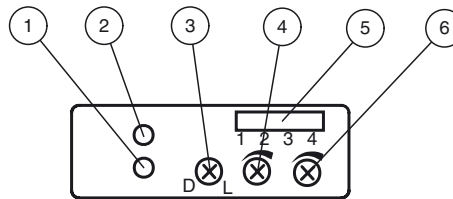
Dimensions



Electrical connection



Indicators/operating means



1	Operating display red (Transmitter)
1	Pre-fault indication red (Receiver)
2	Switch state yellow
3	Light/dark on switch
4	Sensitivity adjustment
5	Timer mode switch (version -Z)
6	Time adjuster (version -Z)

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Technical data**System components**

Emitter	LA39/116
Receiver	LK39-Z/31/40a/116

General specifications

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

Functional safety related parameters

MTTF _d	916 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)
Control elements	switch for timer function

Electrical specifications

Operating voltage	U _B	12 ... 240 V DC / 24 ... 240 V AC (50 ... 60 Hz)
Ripple		10 %
No-load supply current	I ₀	≤ 55 mA (device)
Power consumption	P ₀	≤ 3 VA
Time delay before availability	t _v	≤ 50 ms

Output

Switching type	light/dark on	
Signal output	1 relay output	
Switching voltage	≤ 240 V AC	
Switching current	max. 3 A	
Switching frequency	f	≤ 25 Hz
Response time	≤ 20 ms	
Timer function	On-/off-delay or pulse extension on choice	

Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °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

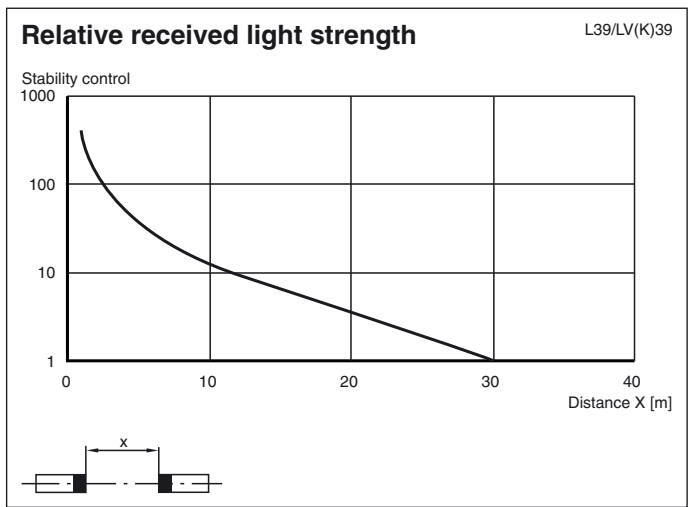
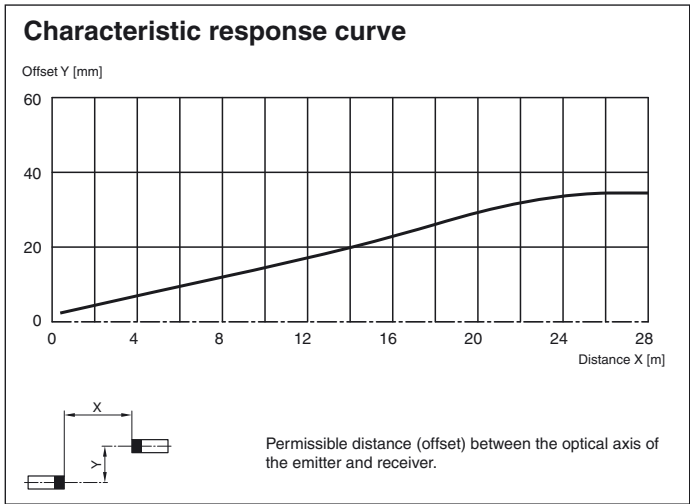
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

Accessories**OMH-RL39**

Mounting bracket for RL39 series Sensors

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

Curves/Diagrams



Light beam	Timer Mode	Light pass	Light block
One shot 	○	ON	OFF
	●	ON	OFF
	○	OFF	ON
	●	OFF	ON
Off-delay 	○	ON	OFF
	●	OFF	ON
	○	OFF	ON
	●	ON	OFF
On-delay 	○	ON	OFF
	●	OFF	ON
	○	ON	OFF
	●	OFF	ON
Normal 	○	ON	OFF
	●	ON	OFF
	○	OFF	ON
	●	OFF	ON

○ Denotes Light - ON T= 0.1 10 sec.
 ● Denotes Dark - ON

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