



Model Number

LA39/LK39/31/40a/116

Thru-beam sensor
with terminal compartment

Features

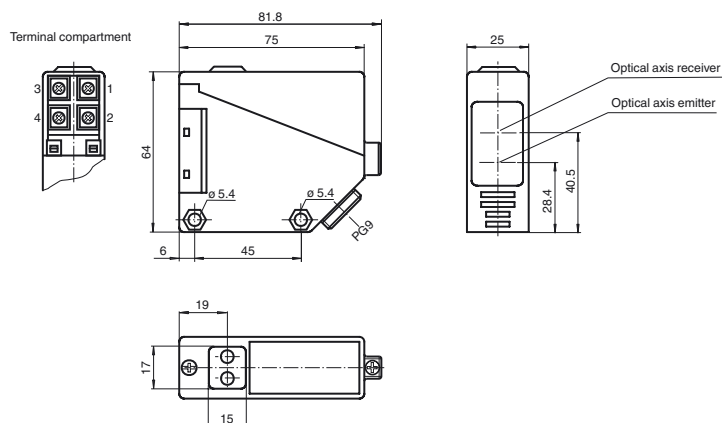
- Light/dark ON, switchable
- Supplied with mounting accessory
- Degree of protection IP67

Product information

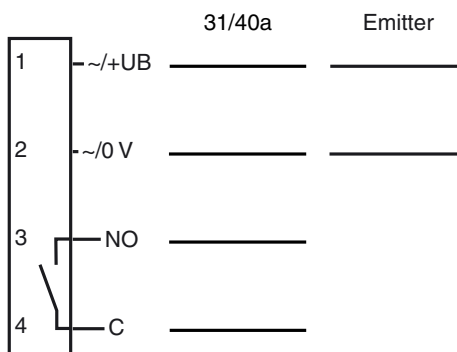
Series 39 sensors are characterized by their high performance level, compact housing design, and variety of available versions. These include thru-beam sensors with a 20 m detection range, retroreflective sensors with polarization filter for a 5 m detection range, energetic diffuse mode sensors with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

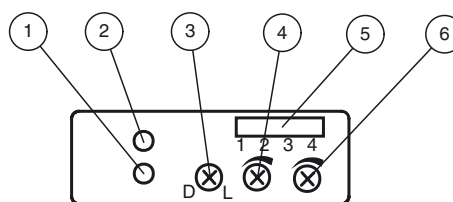
Dimensions



Electrical connection



Indicators/operating means



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

**Technical data****System components**

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

General specifications

Effective detection range	0 ... 20 m
Threshold detection range	25 m
Adjustment range	2 ... 25 m
Reference target	receiver
Light source	IRED
Light type	modulated infrared light
Ambient light limit	IEC / EN 60947-5-2 , 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 LED red: pre-fault indication
Control elements	Sensing range adjuster, light-on/dark-on changeover switch

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	≤ 60 mA receiver and emitter
Protection class		II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Caution! The protection class 2 is only valid when the terminal compartment is closed. output circuit has basic insulation to control circuit according to IEC/EN 61140
Power consumption	P ₀	≤ 3 VA
Time delay before availability	t _v	≤ 300 ms

Output

Switching type	light/dark on
Signal output	1 relay output
Switching voltage	max. 240 V AC ; 150 V DC
Switching current	max. 3 A
Switching power	DC: max. 90 W AC: max. 750 VA
Switching frequency	f ≤ 25 Hz
Response time	≤ 20 ms

Conformity

Product standard	EN 60947-5-2
------------------	--------------

Ambient conditions

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

Mechanical specifications

Housing width	25 mm
Housing height	64 mm
Housing depth	75 mm
Degree of protection	IP67
Connection	terminal compartment PG9, ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	PMMA
Mass	Emitter: approx. 90 g receiver: approx. 110 g

General information

Scope of delivery	Mounting aid
-------------------	--------------

Approvals and certificates

EAC conformity	TR CU 020/2011 TR CU 004/2011
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

Operating principle

The thru-beam sensor requires a pair of devices for operation, comprising a light transmitter and a light receiver. The emitter and receiver must be arranged in optical alignment with each other. The infrared light from the emitter is detected by the receiver and evaluated.

Accessories**OMH-RL39**

Mounting bracket for RL39 series
Sensors

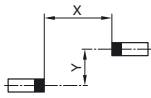
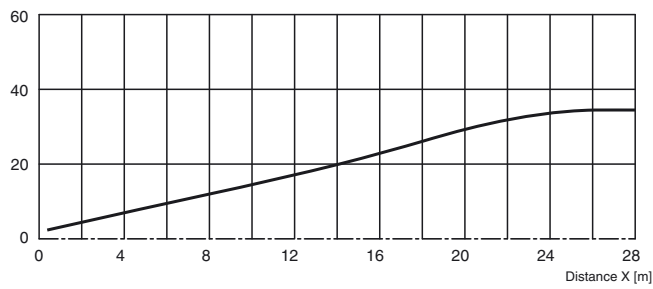
Other suitable accessories can be found at
www.pepperl-fuchs.com



Curves/Diagrams

Characteristic response curve

Offset Y [mm]

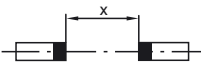
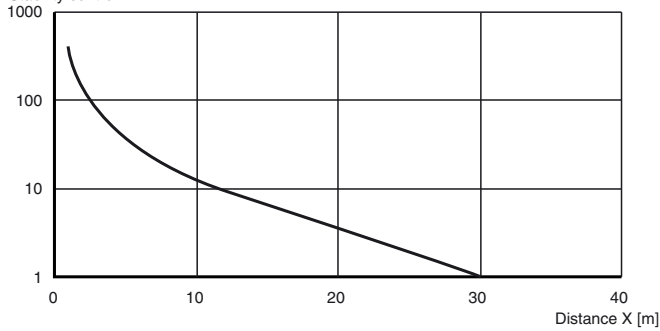


Permissible distance (offset) between the optical axis of the emitter and receiver.

Relative received light strength

L39/LV(K)39

Stability control





SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

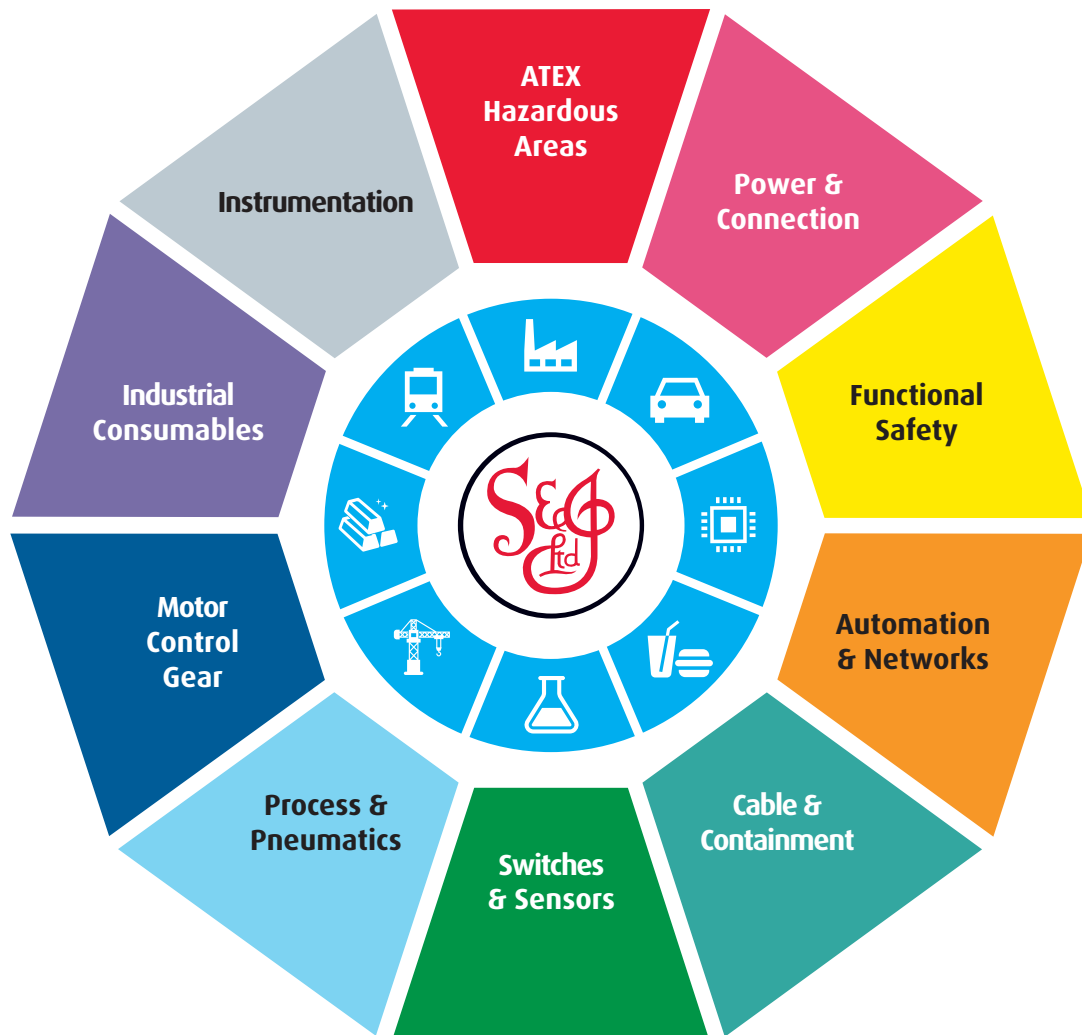
At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

www.scatts.co.uk