



**Model Number**

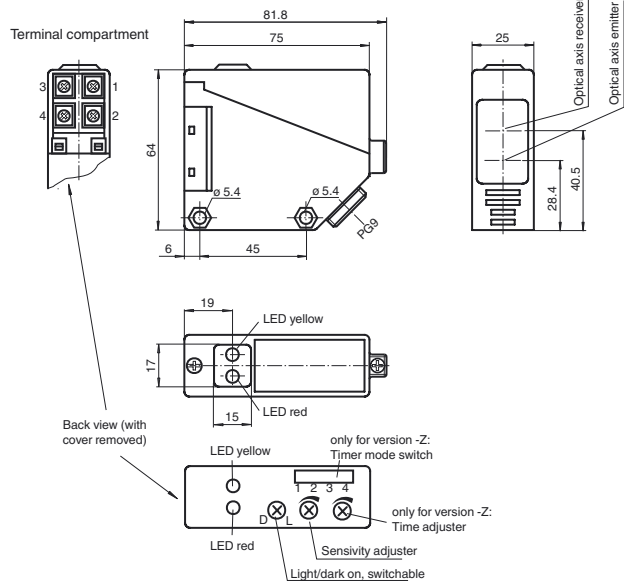
**RLK39-55-Z/31/35/40a/116**

Retroreflective sensor  
with terminal compartment

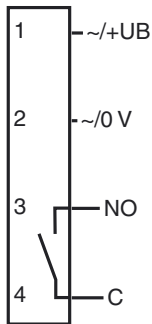
**Features**

- Visible red light
- Light/dark ON, switchable
- Timer function
- Degree of protection IP67

**Dimensions**



**Electrical connection**



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

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**Technical data****General specifications**

Effective detection range	0 ... 20 m
Reflector distance	0.1 ... 20 m
Threshold detection range	25 m
Reference target	H85 reflector
Light source	LED red
Light type	modulated visible red light
Polarization filter	no
Ambient light limit	10000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	803 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

Function indicator	LED yellow: switching state LED red: pre-fault indication
Control elements	sensitivity adjustment
Control elements	Light/Dark switch
Control elements	switch for timer function

**Electrical specifications**

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

**Standard conformity**

Standards	EN 60947-5-2
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**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 <sup>2</sup>
Material	
Housing	PBT
Optical face	PMMA
Mass	110 g

**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**

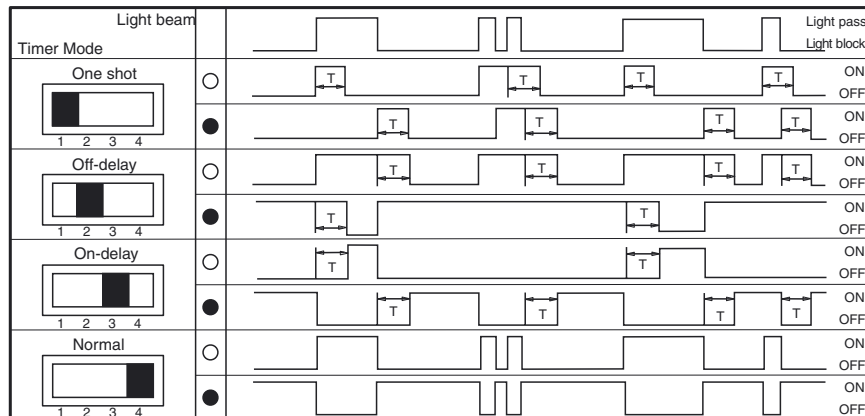
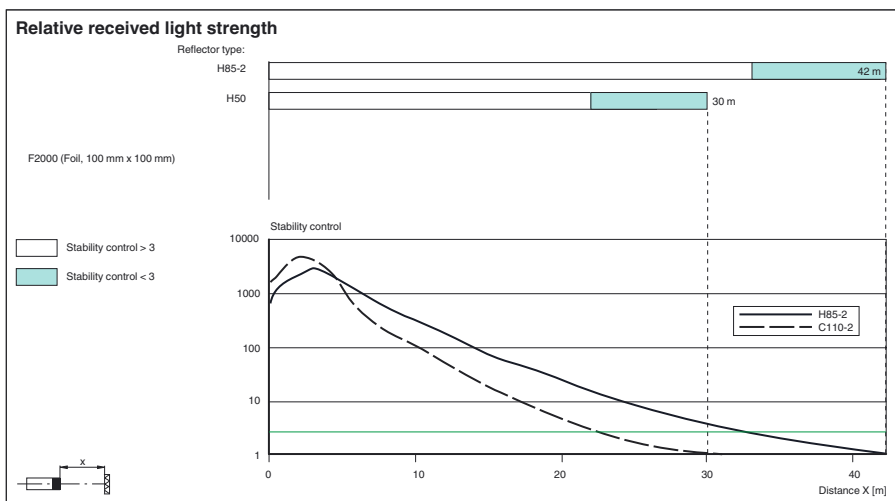
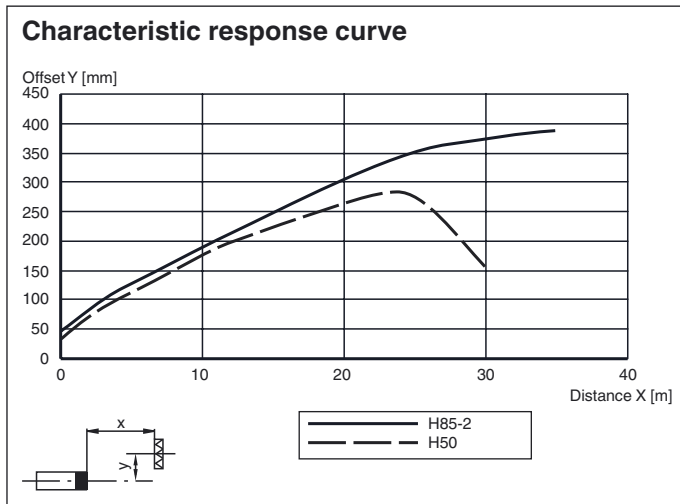
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

**Accessories****OMH-RL39**

Mounting bracket for RL39 series Sensors

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

Curves/Diagrams



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

Additional Information

Conventional use:

The reflex light beam switch contains the emitter and receiver in a single housing. The light from transmitter is beamed back from a reflector to the receiver. If an object interrupts the light beam the switching function is initiated.

Mounting instructions:

The sensor can be fastened over the through-holes directly or with the included mounting bracket. The base surface must be flat to avoid distorting the housing during mounting. It is advisable to secure the bolts and screws with washers to prevent misalignment of the sensor.

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**Instructions for adjustment:**

Connect the sensor to operating voltage, the LED green lights up constantly.

Mount suitable reflector opposite light beam switch and align roughly.

The exact adjustment takes by swivelling the sensor horizontally and vertically. With optimum light reception the yellow LED lights up constantly. In case of bad alignment, the red LED lights up.

**Object detection check:**

Move the object into the light beam. If the object is recorded, the yellow LED goes off. If it isn't going off, reduce the sensitivity with the potentiometer until it goes off. It should light up constantly again when the object is removed.

The red LED lights up if reception deteriorates (e.g. soiled lenses or by maladjustment ) and when falling short of the stability control.

**Illustration:**

We recommend that you clean the optical interfaces and check the plug-in connections and screw connections at regular intervals.