



**Model Number**

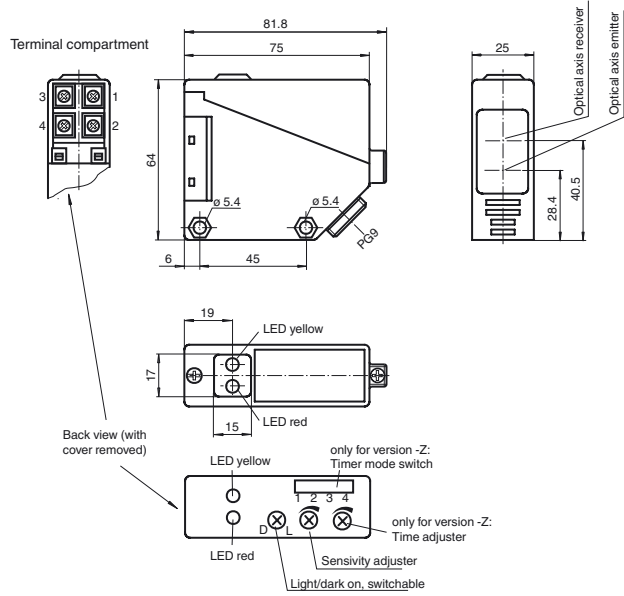
**RLK39-54-Z/31/40a/116**

Retroreflective sensor  
with terminal compartment

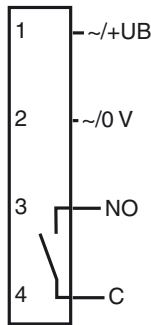
**Features**

- Glare protected with polarization filter
- 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 ... 5 m
Reflector distance	0.1 ... 5 m
Threshold detection range	6 m
Reference target	H50 reflector
Light source	LED red
Light type	modulated visible red light
Polarization filter	yes
Ambient light limit	IEC / EN 60947-5-2 , 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	Sensing range adjuster, light-on/dark-on changeover 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>	≤ 50 mA
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 <sub>0</sub>	≤ 3 VA
Time delay before availability	t <sub>v</sub>	≤ 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
Timer function		On-/off-delay or pulse extension on choice

**Conformity**

Product standard	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**

Housing width	25 mm
Housing height	64 mm
Housing depth	75 mm
Degree of protection	IP67
Connection	terminal compartment PG9, ≤ 2.5 mm <sup>2</sup>
Material	
Housing	PBT
Optical face	PMMA
Mass	approx. 110 g

**General information**

Scope of delivery	Mounting aid , Reflector
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**Approvals and certificates**

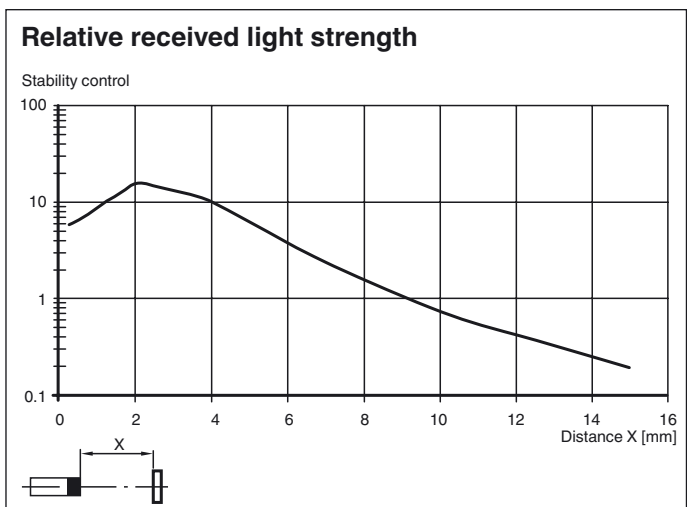
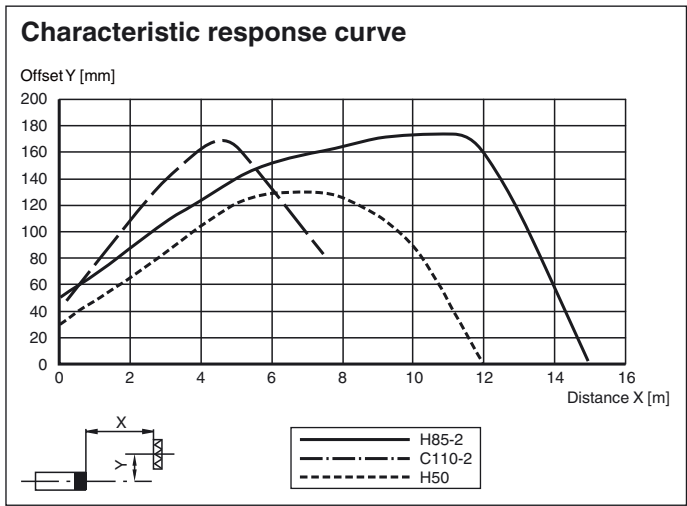
EAC conformity	TR CU 020/2011 TR CU 004/2011
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

**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



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

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

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