

Model Number

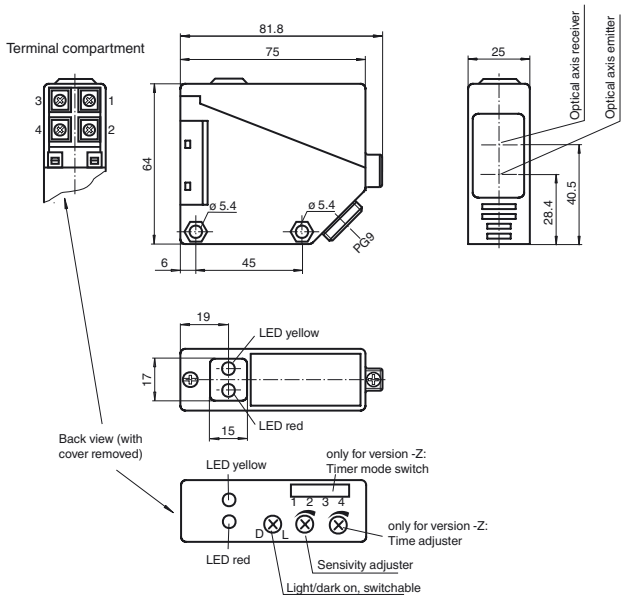
RLK39-8-2000-Z/31/40a/116

Diffuse mode sensor
with terminal compartment

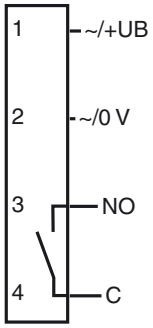
Features

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

Dimensions



Electrical connection



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Technical data

General specifications		
Detection range		0 ... 2000 mm
Adjustment range		75 ... 2000 mm
Reference target		standard white 200 mm x 200 mm
Light source		IRED
Light type		modulated infrared light
Ambient light limit		10000 Lux
Functional safety related parameters		
$MTTF_d$		803 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Function indicator		LED yellow: switching state LED red: pre-fault indication
Control elements		Detection range adjuster, light/dark switch
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	≤ 35 mA
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
Standard conformity		
Standards		EN 60947-5-2
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		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

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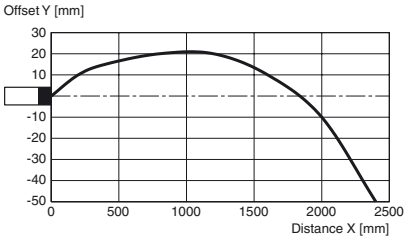
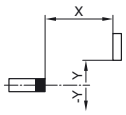
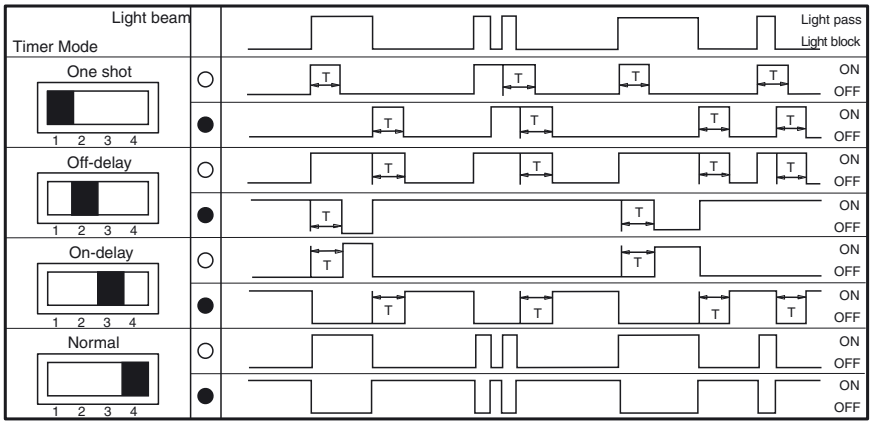
Curves/Diagrams

Characteristic response curve



Permissible distance (offset) between optical axis and object.





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

● Denotes Dark - ON

Additional Information

Conventional use:

The reflex light scanner contains the emitter and receiver in a single housing. The light from transmitter is beamed back from the recorded object is evaluated by the receiver. The detection range depend on the object colour. With dark or very small objects the detection range reduces.

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 so that the sensor does not become misaligned.

Instructions for adjustment:

Adjust the sensor on the background. If the yellow LED illuminates, the detection range needs to be reduced with the detection range adjuster, until the yellow LED goes off.

Object detection check:

Position the object into the light beam. Position light spot on object. If the object is detected, the yellow LED illuminated. If it does not light up, further to adjust the detection range with the potentiometer, until the yellow LED lights up.
The red LED flashes if reception deteriorates (e.g. soiled lenses or by maladjustment) and when falling short of the stability control.

Iustration:

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

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