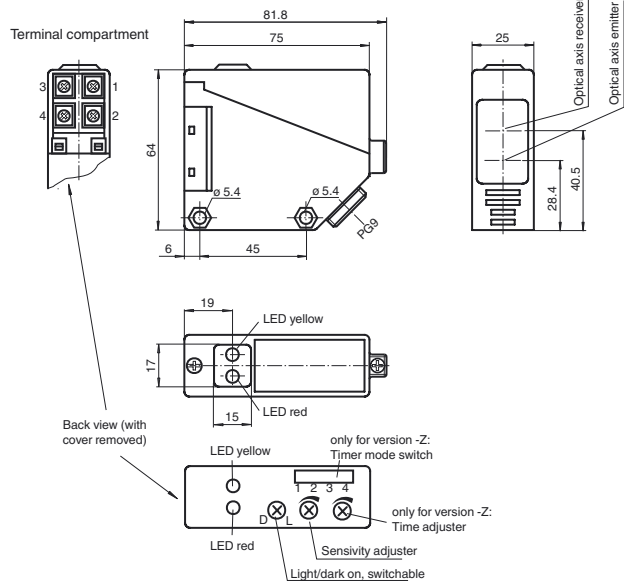## Model Number

RLK39-8-800-Z/31/40a/116

Diffuse mode sensor
with terminal compartment
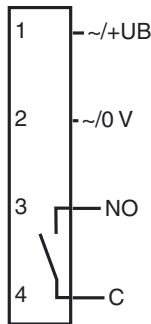
Features

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

Dimensions

Terminal compartment

81.8
75
64
6
45
ø 5.4
ø 5.4
PG9
3 1
4 2

25
Optical axis receiver
Optical axis emitter
40.5
28.4

Back view (with cover removed)

19
17
15
LED yellow
LED red

LED yellow
LED red
D L
Light/dark on, switchable
Sensivity adjuster
only for version -Z: Timer mode switch
only for version -Z: Time adjuster
1 2 3 4

Electrical connection

1 — ~/+UB
2 — ~/0 V
3 — NO
4 — C

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

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Technical data

General specifications
Detection range	0 ... 800 mm
Adjustment range	65 ... 800 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

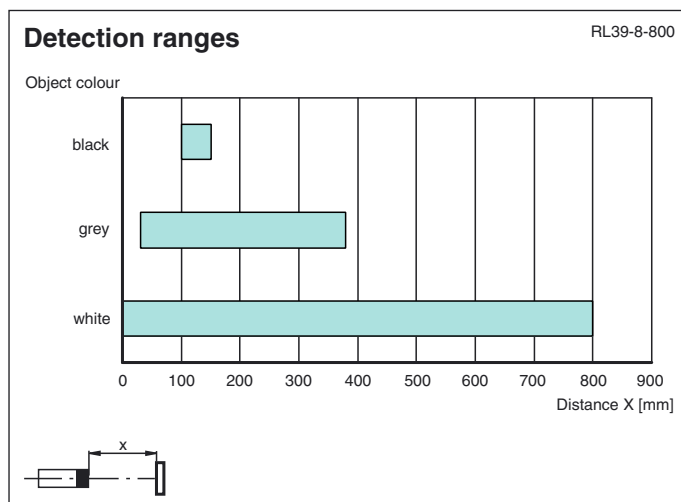### Compliance with standards and directives
Directive conformity	EMC Directive 2004/108/EC
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates
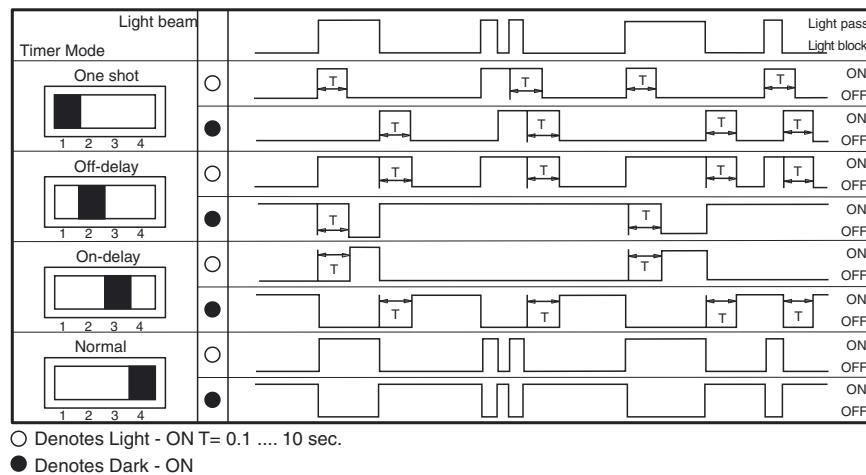|	
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

Accessories

OMH-RL39
Mounting bracket for RL39 series Sensors

Detection ranges
RL39-8-800

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

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Timer Mode diagram: Light beam / Timer Mode with One shot, Off-delay, On-delay, Normal modes.

○ 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.

lustration:

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

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