



### Model Number

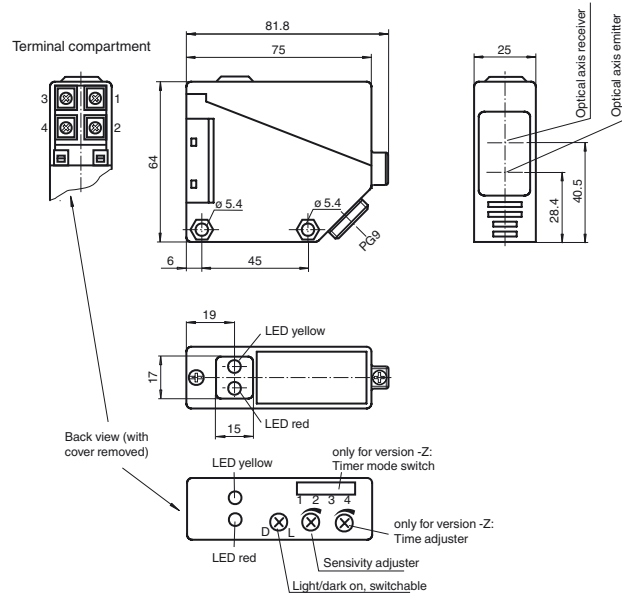
**RLK39-8-2000-Z/31/40a/116**

Diffuse mode sensor  
with terminal compartment

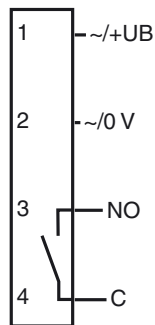
### Features

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

### Dimensions



### Electrical connection



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

Detection range	0 ... 2000 mm
Adjustment range	200 ... 2000 mm
Reference target	standard white 200 mm x 200 mm
Light source	IRED
Light type	modulated infrared light
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		rated insulation voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 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

**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
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**Compliance with standards and directives**

Directive conformity	EMC Directive 2004/108/EC
EMC Directive 2004/108/EC	EN 60947-5-2:2007+A1:2012 IEC 60947-5-2:2007+A1:2012
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

**Approvals and certificates**

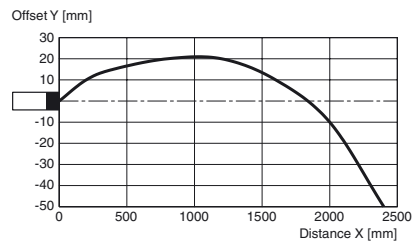
EAC conformity	TR CU 020/2011 TR CU 004/2011
Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 overvoltage category II Caution! The protection class 2 is only valid when the terminal compartment is closed.
CCC approval	Certified by China Compulsory Certification (CCC)
Approvals	CE

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

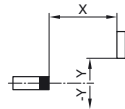
Mounting bracket for RL39 series Sensors

## Curves/Diagrams

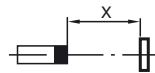
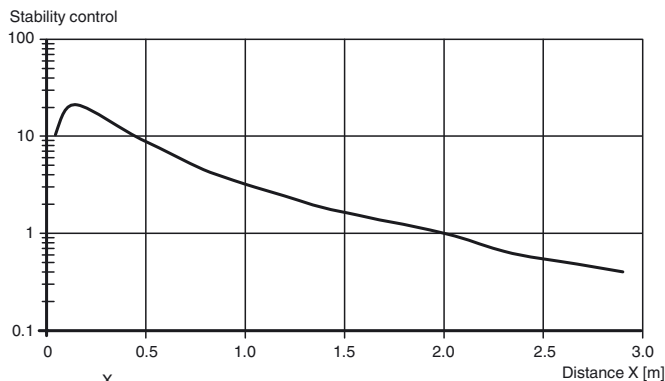
## Characteristic response curve



Permissible distance (offset)  
between optical axis and  
object.



## Relative received light strength



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

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

● Denotes Dark - ON