



Model Number

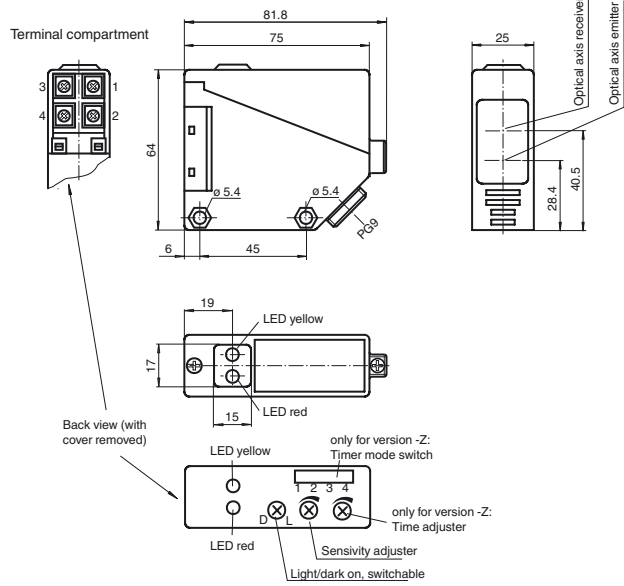
RL39-8-2000/30/40a/116/126a

Diffuse mode sensor
with terminal compartment

Features

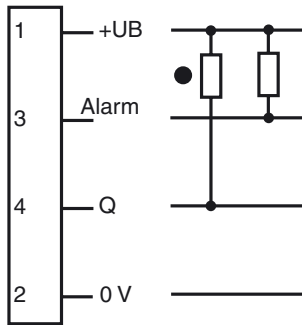
- Infrared light
- Light/dark ON, switchable
- Protection degree IP67

Dimensions



Electrical connection

Option: 30/40a/116/126a



- = Light on
- = Dark on

Release date: 2011-10-17 08:42 Date of issue: 2011-10-17 088824_eng.xml

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
Approvals	CE
Ambient light limit	10000 Lux

Indicators/operating means

Function display	LED yellow: switching state LED red: pre-fault indication
Controls	Detection range adjuster, light/dark switch

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I_0	≤ 35 mA
Time delay before availability	t_v	≤ 50 ms

Output

Output of the pre-fault indication	1 NPN, active when falling short of the stability control	
Switching type	light/dark on	
Signal output	1 NPN output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 200 mA	
Voltage drop	U_d	≤ 3 V
Switching frequency	f	≤ 300 Hz
Response time		≤ 1.5 ms

Standard conformity

Standards	EN 60947-5-2
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Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
Storage temperature	-40 ... 55 °C (-40 ... 131 °F)

Mechanical specifications

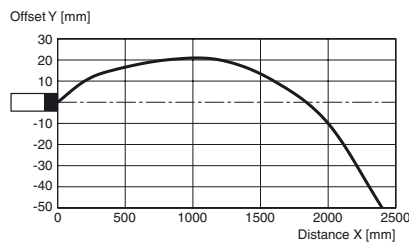
Protection degree	IP67
Connection	terminal compartment PG9, ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	PMMA
Mass	100 g

Approvals and certificates

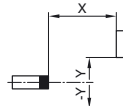
CCC approval	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.
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Curves/Diagrams

Characteristic response curve



Permissible distance (offset) between optical axis and object.



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.

Illustration:

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