

LD39/LV39/32/40a/82a/116

thru-beam sensor

LD39/LV39/32/40a/82a/116

with terminal compartment

CE

- ◆ Pre-fault indication and output (static)
- ◆ Light/dark ON, switchable
- ◆ Supplied with mounting accessory
- ◆ Protection degree IP67



General specifications

Effective detection range	0 ... 20 m
Threshold detection range	30 m
Light source	LED
Approvals	CE
Adjustment range	800 ... 30000 mm
Reference target	receiver
Light type	infrared, modulated light
Ambient light limit	10000 Lux

Indicators/operating means

Operating display	LED red (emitter)
Function display	LED yellow: switching state (receiver) LED red: pre-fault indicator, flashing (receiver)
Operating elements	sensitivity adjuster (receiver)
Operating elements	Light/dark switch (receiver)

Electrical specifications

Operating voltage	10 ... 30 V DC
Ripple	10 %
No-load supply current I_0	≤ 55 mA (device)
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 switching
Signal output	1 PNP output, short-circuit proof, protected from reverse polarity, open collector
Switching voltage	≤ 30 V DC
Switching current	≤ 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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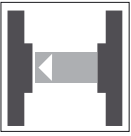
Ambient conditions

Ambient temperature	-25 ... 55 °C (248 ... 328 K)
Storage temperature	-40 ... 55 °C (233 ... 328 K)

Mechanical specifications

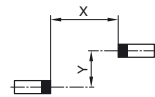
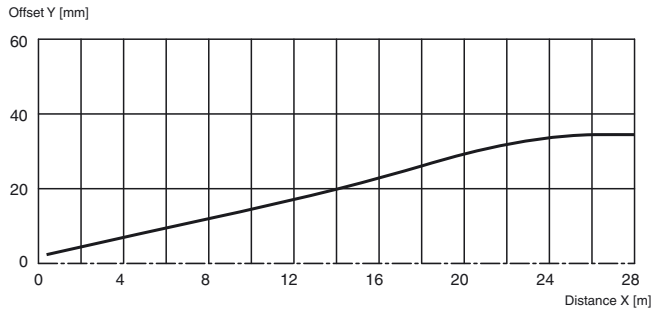
Protection degree	IP67
Connection	terminal compartment PG9, ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	PMMA
Mass	emitter: 90 g receiver: 100 g

Release date: 2007-04-18 15:13 Date of issue: 2007-04-18 088805_ENG.xml



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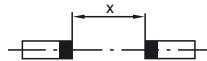
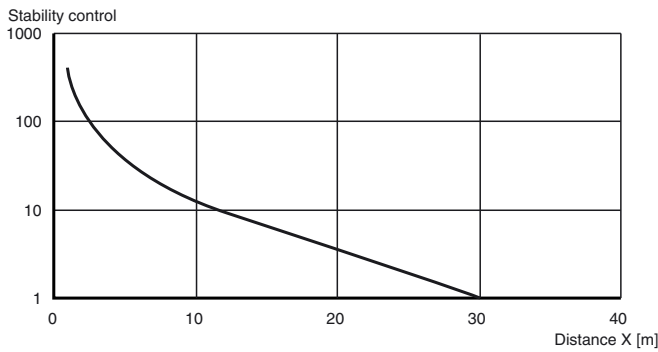
Characteristic response curve



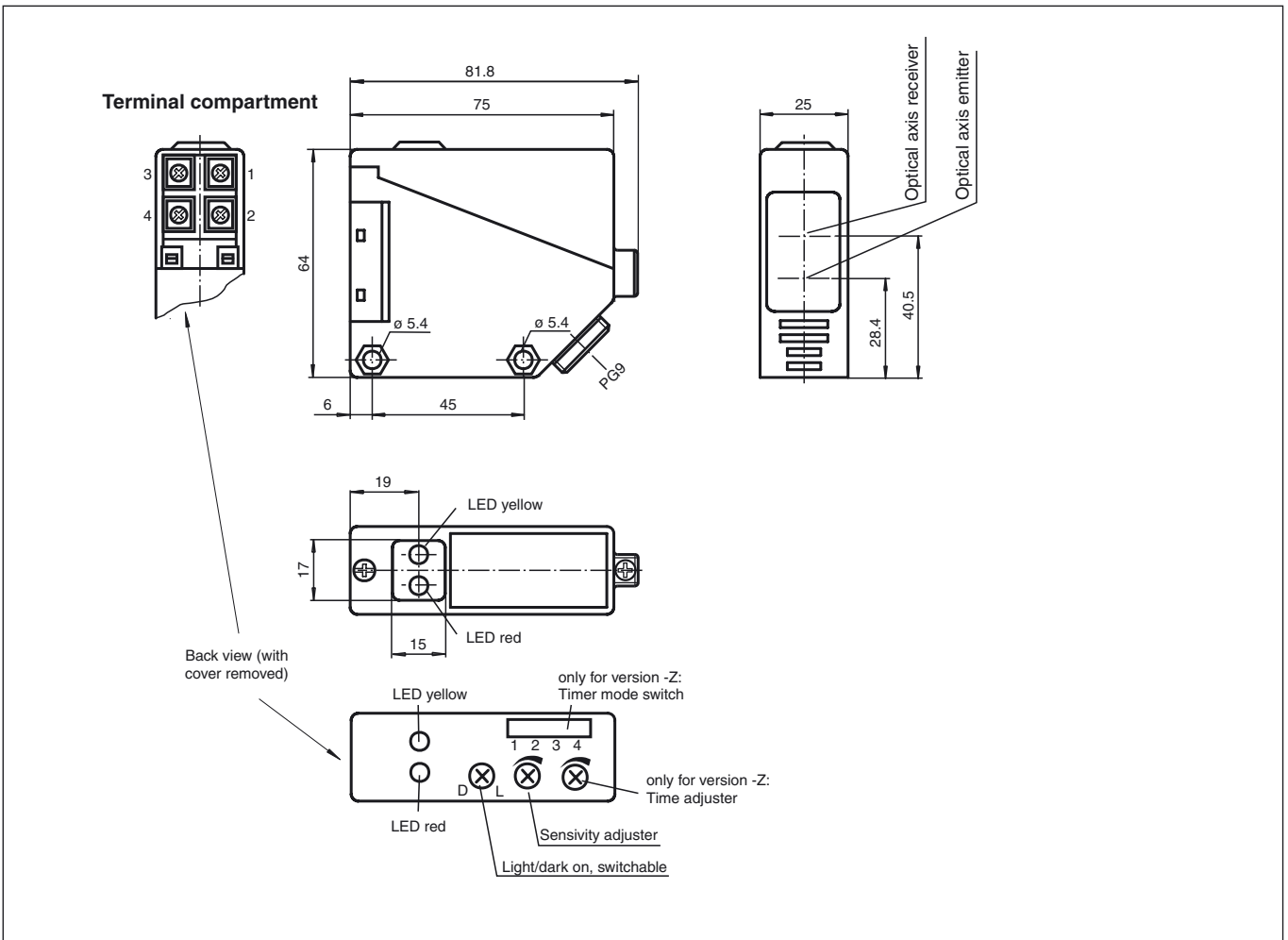
Permissible distance (offset) between the optical axis of the emitter and receiver.

Relative received light strength

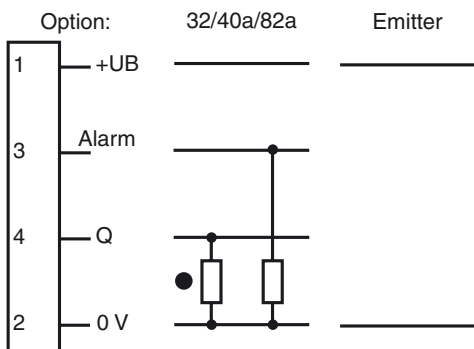
L39/LV(K)39



Dimensions



Electrical connection



○ = light on, ● = dark on

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Additional Information

Conventional use:

The emitter and receiver of the single path light beam switch are housed in different cases that are separated from each other. The emitter transmits directly to receiver. If an object interrupts the light beam the switching function is initiated.

Mounting instructions:

The sensor can be fastened over the through-holes directly or with the included support angle. The base surface must be flat to avoid distorting the housing during mounting. It is advisable to secure the bolts and screws with washers to prevent misalignment of the sensor.

Instructions for adjustment:

Emitter and receiver mount to opposite each other and align roughly. The exact adjustment takes by swivelling the emitter or receiver horizontally and vertically. With optimum light reception the yellow LED (only receiver) lights up constantly. In case of bad alignment, the red LED lights up.

Object detection check:

Move the object into the light beam. If the object is recorded, the yellow LED switch off. If it doesn't go off, reduce the sensitivity with the potentiometer until it goes off. It should light up constantly again when the object is removed.

The red LED lights up 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.