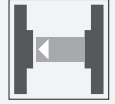


Thru-beam sensor

LD39/LV39/30/40a/116/126a



- Stability alarm indicator and output (static)
- Light-on/dark-on, switchable
- Supplied with mounting accessory
- Degree of protection IP67

Thru-beam sensor, 20 m detection range, infrared light, light/dark on, DC version, NPN output, sensitivity adjuster, pre-fault output, terminal compartment



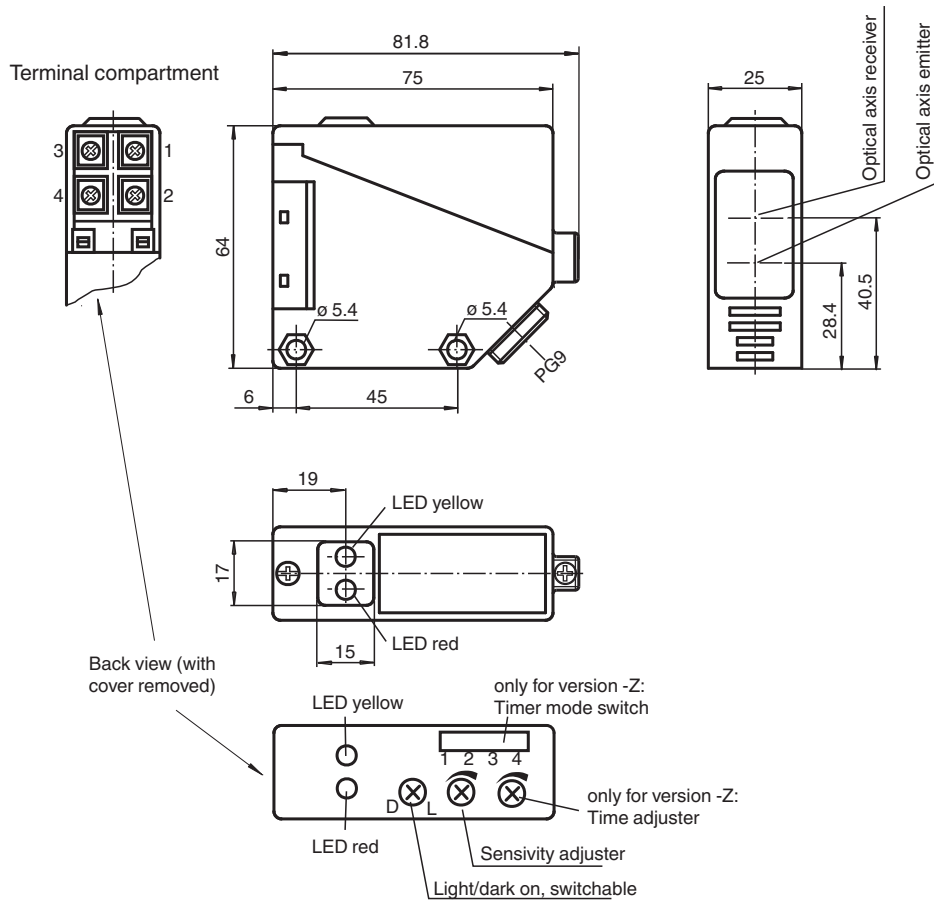
Function

Series 39 sensors are characterized by their high performance level, compact housing design, and variety of available versions. These include thru-beam sensors with a 20 m detection range, retroreflective sensors with polarization filter for a 5 m detection range, energetic diffuse mode sensors with an 800 mm and 2000 mm detection range, and a background suppression sensor with 500 mm detection range. Fitted in a robust plastic housing, this series is ideal for tough industrial applications. The sensors are supplied with 10 V to 30 V DC, or 24 V to 240 V AC/DC. Various transistor and relay outputs are available as signal outputs. Standard features include pre-fault diagnostics and pre-fault output. The switching element function can be changed using the light/dark switch.

Application

- Object tracking in material handling, and the packaging sector
- Material flow monitoring
- Bin occupancy check in storage technology
- Fine positioning in high-bay warehouses
- Presence and height monitoring on pallet conveyors
- Single-beam protection for automatic industrial gates and elevator doors
- Protection at automatic gates

Dimensions



Technical Data

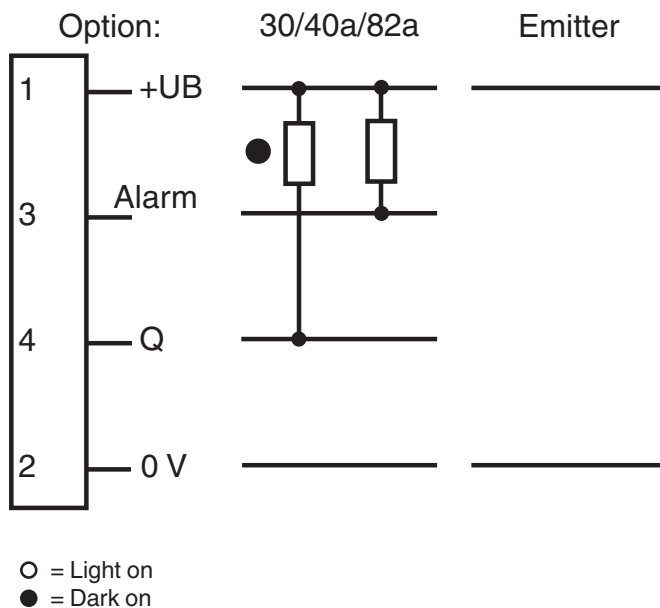
System components	
Emitter	LD39/116
Receiver	LV39/30/40a/116/126a
General specifications	
Effective detection range	0 ... 20 m
Threshold detection range	25 m
Adjustment range	2 ... 25 m
Reference target	receiver
Light source	LED
Light type	modulated infrared light
Ambient light limit	IEC / EN 60947-5-2 , 10000 Lux
Functional safety related parameters	
MTTF _d	800 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Indicators/operating means	
Operation indicator	LED red (emitter)
Function indicator	LED yellow: switching state (receiver) LED red: pre-fault indicator, flashing (receiver)
Control elements	Sensing range adjuster, light-on/dark-on changeover switch
Electrical specifications	
Operating voltage	U _B 10 ... 30 V DC

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Technical Data

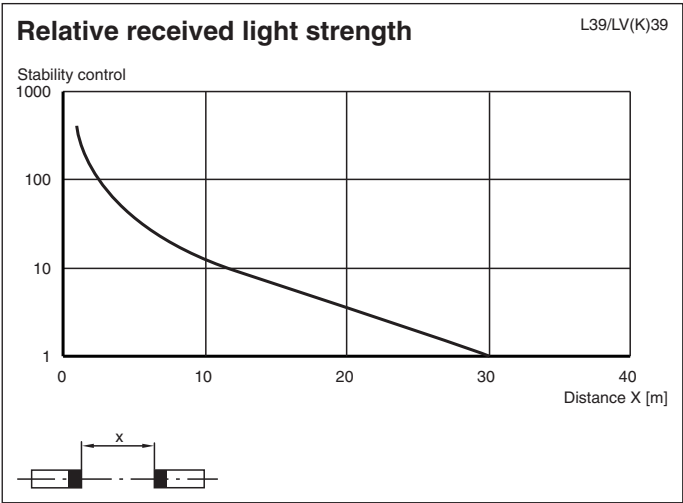
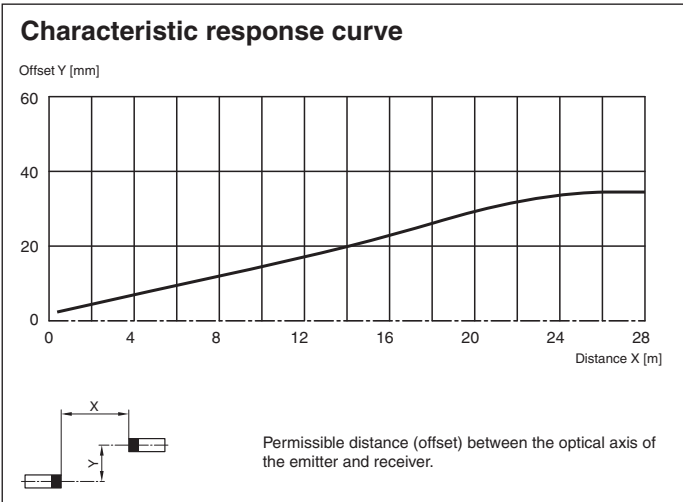
Ripple		10 %
No-load supply current	I_0	$\leq 20 \text{ mA (device)}$
Time delay before availability	t_v	$\leq 300 \text{ ms}$
Output		
Stability alarm output		1 NPN, active when falling short of the stability control
Switching type		light/dark on
Signal output		1 NPN output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		$\leq 30 \text{ V DC}$
Switching current		max. 200 mA , resistive load
Voltage drop	U_d	$\leq 3 \text{ V}$
Switching frequency	f	$\leq 300 \text{ Hz}$
Response time		$\leq 1.5 \text{ ms}$
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated $\leq 36 \text{ V}$
Approvals		CE
Ambient conditions		
Ambient temperature		$-25 \dots 55 \text{ }^\circ\text{C} (-13 \dots 131 \text{ }^\circ\text{F})$
Storage temperature		$-40 \dots 70 \text{ }^\circ\text{C} (-40 \dots 158 \text{ }^\circ\text{F})$
Mechanical specifications		
Housing width		25 mm
Housing height		64 mm
Housing depth		75 mm
Degree of protection		IP67
Connection		terminal compartment PG9, $\leq 2.5 \text{ mm}^2$
Material		
Housing		PBT
Optical face		PMMA
Mass		Emitter: approx. 90 g receiver: approx. 100 g
General information		
Scope of delivery		Mounting aid

Connection Assignment




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Characteristic Curve



Accessories

	OMH-RL39	Mounting bracket for RL39 series Sensors
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Function Principle

The thru-beam sensor requires a pair of devices for operation, comprising a light transmitter and a light receiver. The emitter and receiver must be arranged in optical alignment with each other. The infrared light from the emitter is detected by the receiver and evaluated.