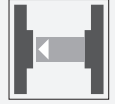


Thru-beam sensor

LA39/LK39-Z/31/40a/116



- Light-on/dark-on, switchable
- Timer function
- Supplied with mounting accessory
- Degree of protection IP67

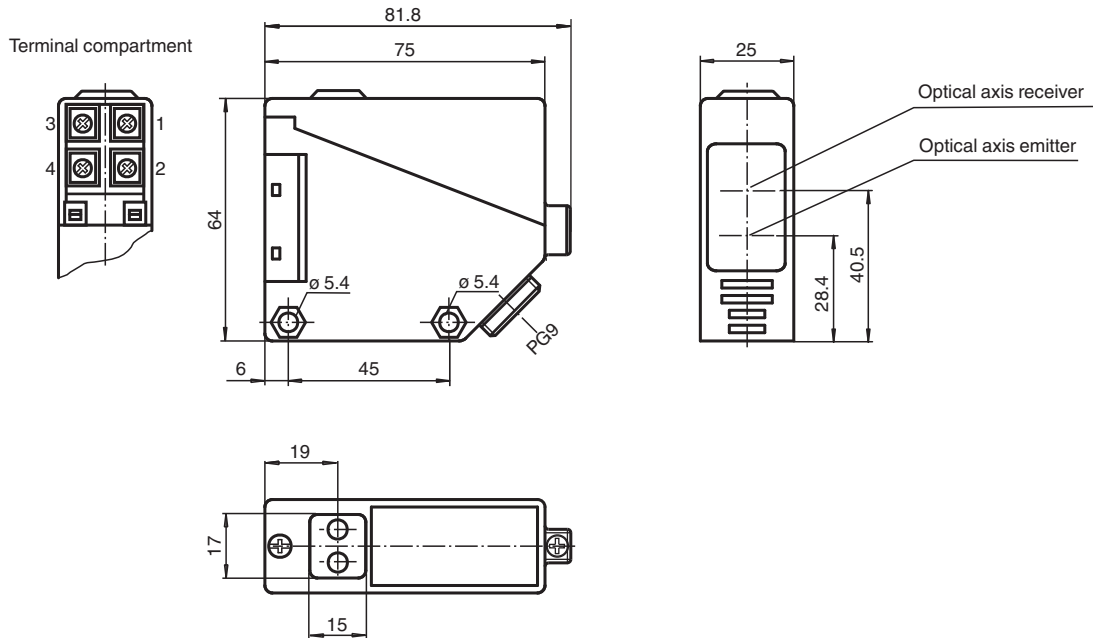
Thru-beam sensor, 20 m detection range, infrared light, light/dark on, AC/DC version, relay contact output, sensitivity adjuster, timer function, terminal compartment



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.

Dimensions



Technical Data

System components	
Emitter	LA39/116
Receiver	LK39-Z/31/40a/116
General specifications	
Effective detection range	0 ... 20 m
Threshold detection range	25 m
Adjustment range	2 ... 25 m
Reference target	receiver
Light source	IRED
Light type	modulated infrared light
Ambient light limit	10000 Lux
Functional safety related parameters	
MTTF _d	916 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 LED red: pre-fault indication
Control elements	Sensing range adjuster, light-on/dark-on changeover switch
Control elements	switch for timer function
Electrical specifications	

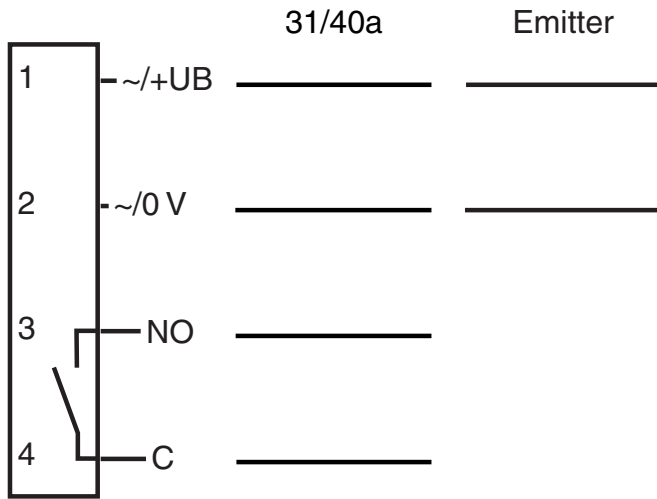
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

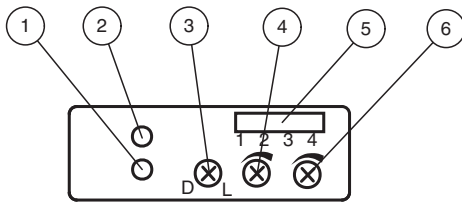
Technical Data

Operating voltage	U_B	12 ... 240 V DC / 24 ... 240 V AC (50 ... 60 Hz)
Ripple		10 %
No-load supply current	I_0	≤ 60 mA receiver and emitter
Protection class		II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Caution! The protection class 2 is only valid when the terminal compartment is closed. output circuit has basic insulation to control circuit according to IEC/EN 61140
Power consumption	P_0	≤ 3 VA
Time delay before availability	t_v	≤ 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
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
CCC approval		Certified by China Compulsory Certification (CCC)
Approvals		CE
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 ²
Material		
Housing		PBT
Optical face		PMMA
Mass		Emitter: approx. 90 g receiver: approx. 110 g
General information		
Scope of delivery		Mounting aid

Connection Assignment

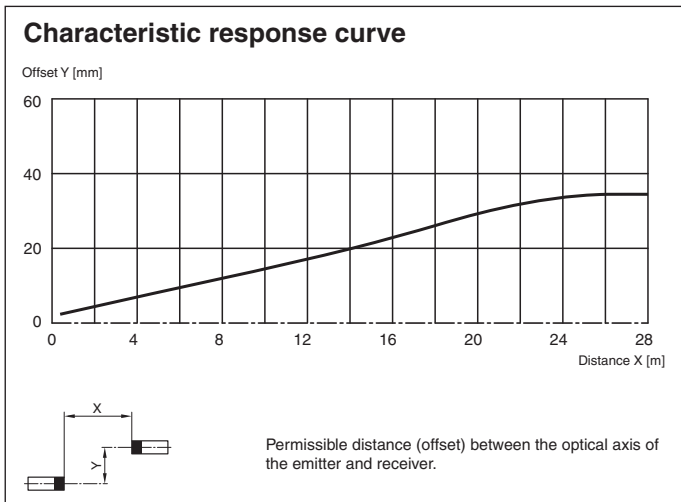


Assembly



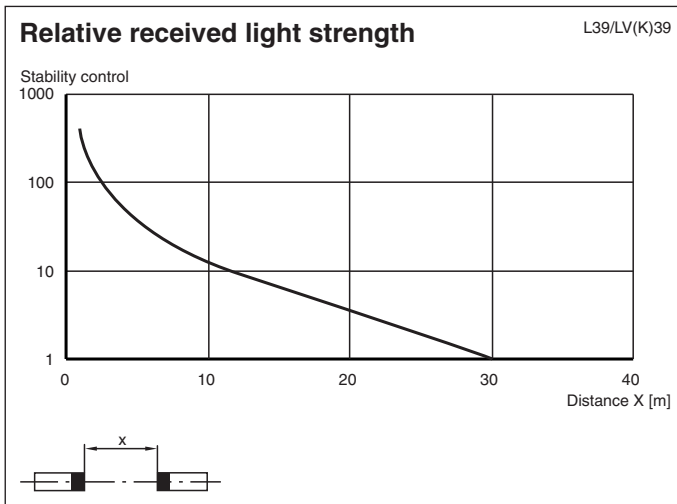
1	Operating display red (Transmitter)
1	Pre-fault indication red (Receiver)
2	Switch state yellow
3	Light/dark on switch
4	Sensitivity adjustment
5	Timer mode switch (version -Z)
6	Time adjuster (version -Z)

Characteristic Curve



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Characteristic Curve



Application



Mounting

**Timerfunktion
Fonction de temporisation
Funzione timer**

**Timer function
Función del timer**

Zeitgeber Modus
Timer Mode
Mode temporisation
Modo Temporizador
Modo di controllo di tono

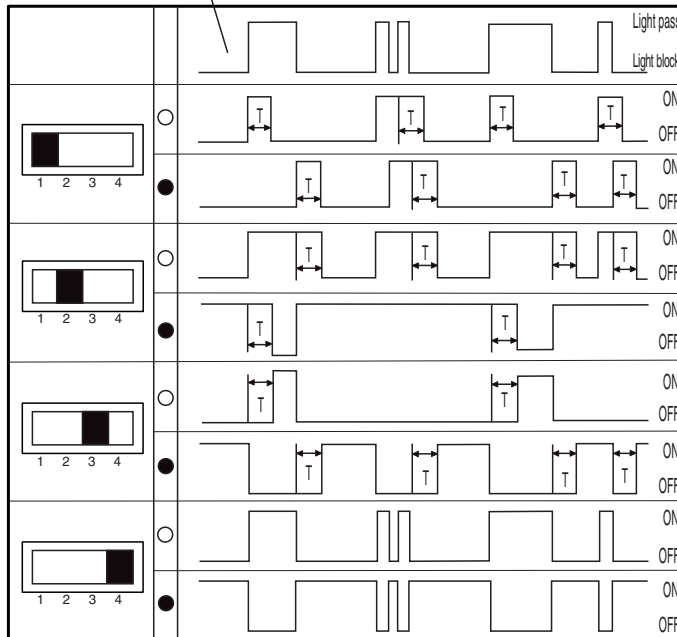
Lichtstrahl, light beam, faisceau lumineux,
barrera de luz, raggio di luce

Impulsausgang
One shot
Sortie impulsions
Salida de impulso
Uscita d'impulsi

Aus-Verzögerung
Off-delay
Retard OFF
Retardo a la desconexión
Ritardo di spegnimento


Ein-Verzögerung
On-delay
Retard ON
Retardo a la conexión
Ritardo di accensione

Normal
Normal
Normal
Normale



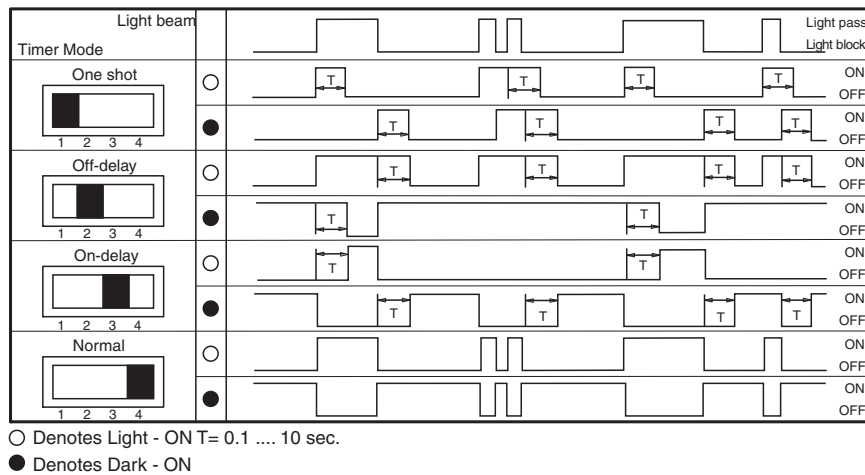
- Kennzeichnung der Hell-Schaltung (T= 0,1 s bis 10 s).
Denotes Light-ON (T= 0.1 s ... 10 s).
Sensibilité à la lumière (T= 0,1 s ... 10 s).
Indicación conmut. claro (T= 0,1 s ... 10 s).
Commutazione in presenza di luce (T= 0,1 s ... 10 s).
- Kennzeichnung der Dunkel-Schaltung
Denotes Dark-ON
Sensibilité à l'obscurité
Indicación conmut. oscuro
Commutazione per assenza di luce

Accessories

	OMH-RL39	Mounting bracket for RL39 series Sensors
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Configuration



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.

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

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