



Model Number

BB10-P-6118/33/35/59/103

Thru-beam sensor
with fixed cable

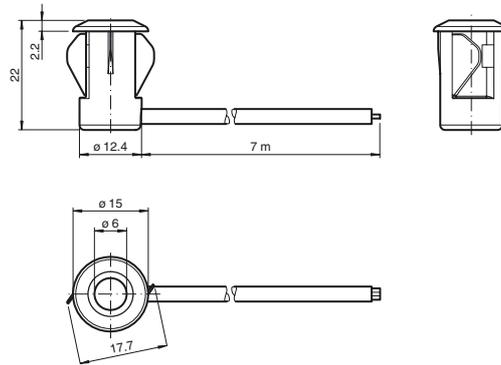
Features

- Single-beam miniature photoelectric sensor, ideal for installing in frames or contours
- Integrated circuit
- Plug-in style housing for 13 mm hole
- Dark on version

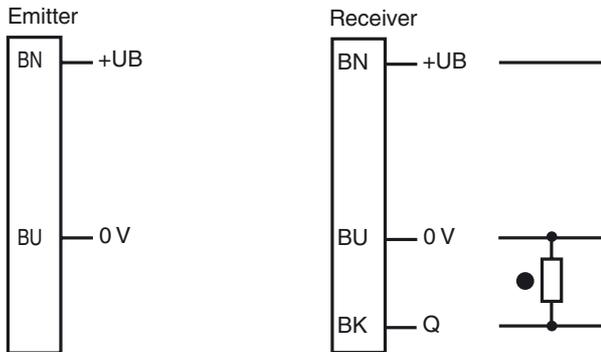
Product information

There is no simpler way of installing a sensor: drill the hole, clip in the sensor and you're done. What's more, the BB10 plug-in sensors for doors and turnstiles offer top performance at an extremely attractive price. The switching mechanism is integrated in the compact, self-contained and temperature-stable housing, making the BB10 suitable even for extremely cold regions with temperatures as low as -40°C.

Dimensions

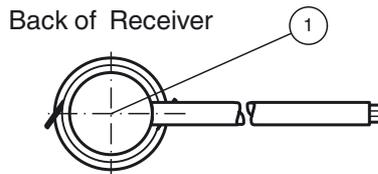


Electrical connection



- = Light on
- = Dark on

Indicators/operating means



1	Signal display	red
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Technical data

System components

Emitter	BB10-T-6118
Receiver	BB10-R-F1/33/35/59/103/115-7m

General specifications

Effective detection range	0 ... 2 m
Threshold detection range	2.5 m
Light source	IREL
Light type	modulated infrared light , 880 nm
Diameter of the light spot	approx. 250 mm at a distance of 2 m
Angle of divergence	Emitter: +/- 3 ° Receiver: +/- 10 ° at max. sensing range ; typical
Optical face	frontal
Ambient light limit	halogen light 100000 Lux ; according to EN 60947-5-2:2007

Functional safety related parameters

MTTF _d	795 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function indicator	LED red: lights up when receiving the light beam ; flashes when falling short of the stability control; OFF when light beam is interrupted
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Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
No-load supply current	I ₀	Emitter: ≤ 20 mA Receiver: ≤ 10 mA

Output

Switching type	dark on	
Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA	
Voltage drop	U _d	≤ 1.5 V DC
Switching frequency	f	100 Hz
Response time		5 ms

Conformity

Product standard	EN 60947-5-2
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Ambient conditions

Ambient temperature	-40 ... 60 °C (-40 ... 140 °F) , fixed -20 ... 60 °C (-4 ... 140 °F) , movable
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	90 % , noncondensing

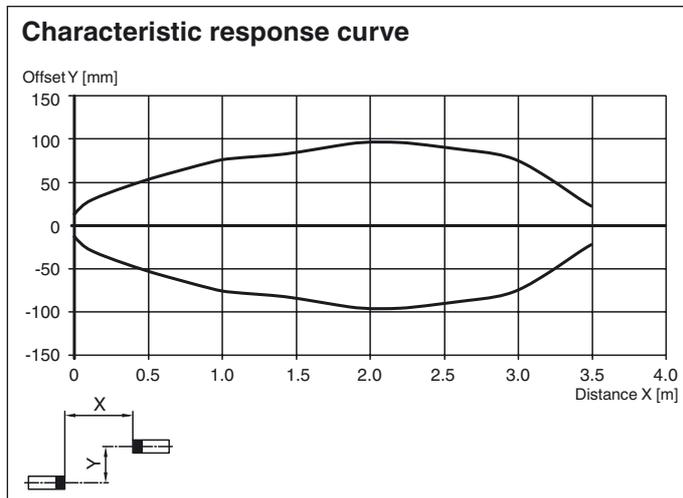
Mechanical specifications

Degree of protection	IP67
Connection	7 m fixed cable Receiver: grey ; Emitter: black
Material	
Housing	PC , black
Optical face	Plastic pane
Mass	approx. 100 g per device

Approvals and certificates

CCC approval	CCC approval / marking not required for products rated ≤36 V
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Curves/Diagrams

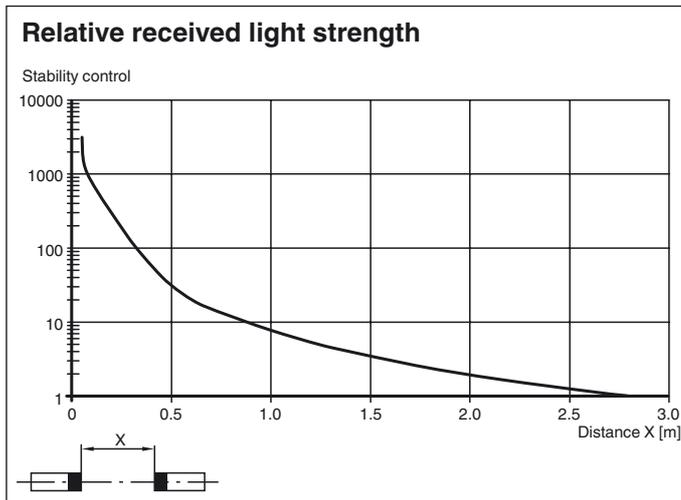


Typical applications

- Monitoring function for turnstiles
- Activation function for restarting escalators
- Monitoring of industrial gates
- Person detection for automatic doors and gates

Detection area





Operating principle

The thru-beam sensor requires two devices for operation; a light source and a light receiver. The light source and receiver must be optically aligned with one another in a single line. The infrared light emitted from the source is recorded by the receiver and evaluated.

The sensor detects both people and objects for as long as an object interrupts the detection beam, regardless of movement and surface structure.