



# LBDDoor

Single-beam miniature light barrier in button design  
for automatic doors, escalators and industrial doors

## Robust, reliable, compact

- Durable and watertight housing with IP67
- Insensitive to extraneous light
- Suitable for mounting in pairs thanks to narrow aperture angle

# LBDoor

## Single-beam miniature light barrier in button design

### Light barrier for detecting people and objects

The LBDoor light barrier in button design is an impressive product thanks to its great performance and numerous possible uses. As well as providing reliable monitoring of closing edges on sliding and industrial doors, LBDoor is also ideal collision protection for revolving doors or an ideal pulse generator for restarting escalators. The light barrier in button design also detects occupancy of security gates. The circuit is integrated in the compact, fully encapsulated and temperature-stable housing. LBDoor is therefore suited to use in very cold regions down to  $-40^{\circ}\text{C}$  and with IP67 is also ideal in wet environments.

### Compact design

Thanks to its small dimensions, the sensor system can be easily integrated in door frames and fitted without any problems.



## Benefits

### Start-up

- Ideal for installing in frames or profiles
- Plug-in housing for 13 mm hole
- Narrow aperture angle, suitable for mounting in pairs

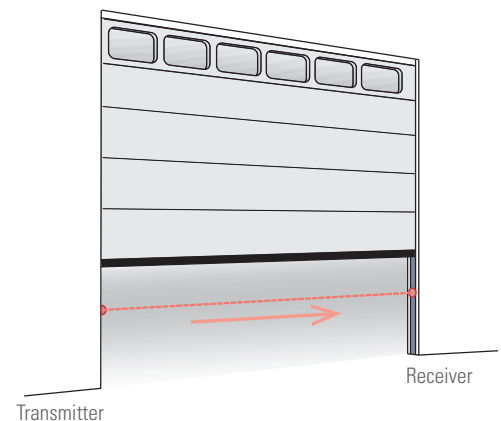
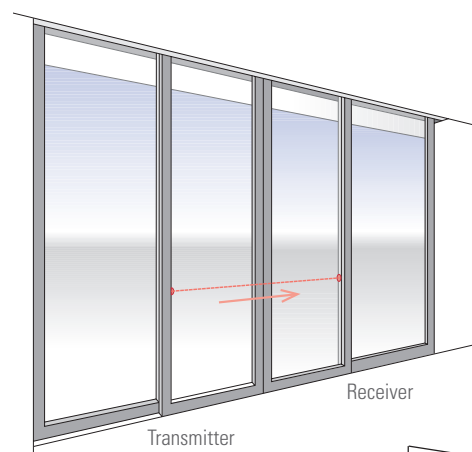
### Durable and reliable

- Outstanding detection of shiny and reflective objects
- Watertight housing with IP67
- Can also be used in very cold regions down to  $-40^{\circ}\text{C}$

### Safety

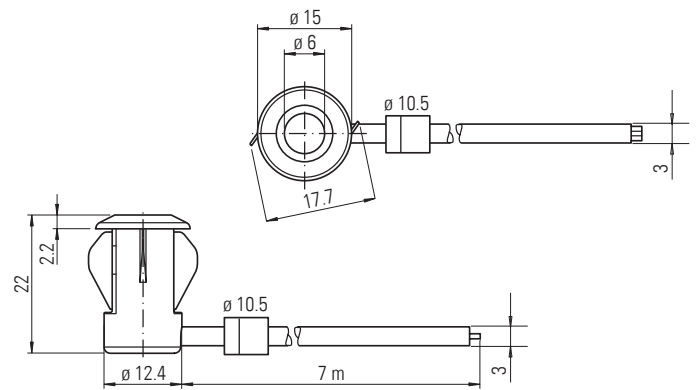
- Various frequencies to prevent devices affecting one another
- Integrated circuit

## Functional principle





## Dimensions



## Applications

### Situation

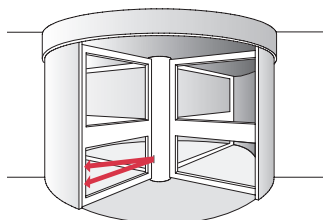
Bottom edge of door panels of a revolving door

### Solution

To protect the door panel by means of trapping and collision protection

### Benefits

- Early, reliable and contact-free detection of people
- Unobtrusive protection system



### Situation

Escalator

### Solution

To detect people and initiation of restart when in energy-saving mode

### Benefits

- Optimised flow of people and energy consumption because the escalator is activated when passengers approach it
- Easier to integrate in overall system thanks to small dimensions



### Situation

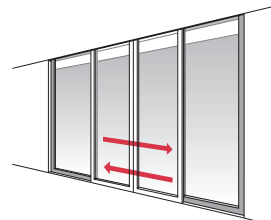
Primary closing edge of a sliding door

### Solution

To protect the primary closing edge on sliding doors to prevent accidents resulting from people getting trapped

### Benefits

- Simple and point-based protection in door opening
- Space saving integration in door profile



### Situation

Primary closing edge of a vertical closing industrial door

### Solution

To protect the primary closing edge on vertical industrial doors and to prevent collisions with people, goods or vehicles

### Benefits

- Virtually invisible protection system
- The industrial door is held open during activation



## Technical data

### Mechanical data

Housing material	PC
Weight	100 g per device
Colour	Receiver grey, Transmitter black
Light exit	Plastic lens

### Technological data

Operating range	0–6 m
Range limit	8 m
Light transmitter	IREC
Type of light	Infrared, modulated light, 880 nm
Light spot diameter	approx. 1300 mm at a distance of 6 m
Aperture angle	Transmitter $\pm 8^\circ$ Receiver $\pm 10^\circ$
Light exit	Frontal
Light immunity	Halogen light 100'000 lux; in acc. with EN 60947-5-2:2007
Function indication	LED red: lights up when the transmitter beam is received; flashes when the operating reserve is exceeded; off when beam is interrupted

### Electrical data

Operating voltage	10–30 VDC
Standby current	Transmitter $\leq 20$ mA Receiver $\leq 10$ mA
Connection type	7 m PVC fixed cable with 3-pin JST plug connector, diameter = 1.5 mm <sup>2</sup>
Test input	Transmitter deactivated at 0 V
Output	
Switching type	LBDoor TB12.N./TB.12.P. bright switching, LBDoor TB12.D.P./TB.12.D.N. dark switching
Signal output	LBDoor TB12.N./TB.12.D.N. 1 NPN output, LBDoor TB12.P./TB.12.D.P. 1 PNP output, all short-circuit-proof, with reverse polarity protection, with open collector
Switching voltage	Max. 30 VDC
Switching current	Max. 100 mA
Voltage drop	$\leq 1.5$ VDC
Switching frequency	62.5 Hz
Response time	8 ms

### Ambient conditions

Ambient temperature	–40°C to +60°C laid permanently, –20°C to +60°C mobile
Storage temperature	–40°C to +70°C
Relative air humidity	< 90%, non-condensing
Protection class	IP67

### Standards

EMC Directive 2004/108/EC	EN 60947-5-2:2007
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007
CCC approval	Products with a max. oper- ating voltage $\leq 36$ V do not require approval and do not therefore have CCC labelling

## Ordering information

### Item no. Description

**370565** **LBDoor TB12.D.N.**  
One-way light barrier,  
NPN, Dark on

**370567** **LBDoor TB12.N.**  
One-way light barrier,  
NPN, Light on

**370566** **LBDoor TB12.D.P.**  
One-way light barrier,  
PNP, Dark on

**370568** **LBDoor TB12.P.**  
One-way light barrier,  
PNP, Light on



### BBC Bircher Smart Access

Wiesengasse 20  
8222 Beringen  
Switzerland  
Tel. +41 52 687 11 11  
info@bircher.com  
www.bircher.com

### Note

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