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Smart Access





LBDoor

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

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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°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

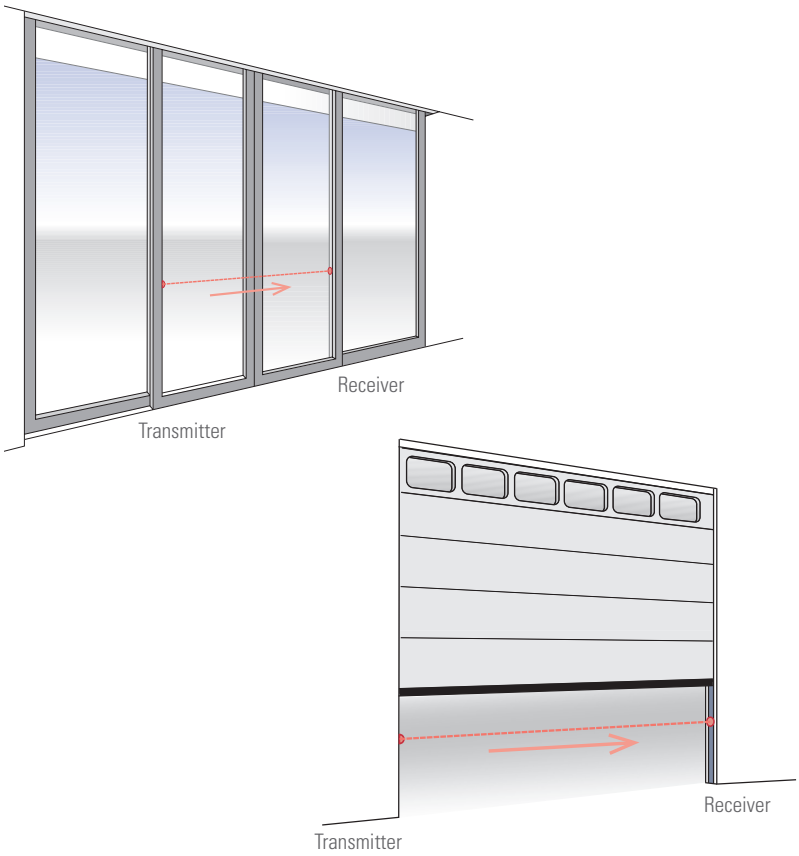
Durable and reliable

- Outstanding detection of shiny and reflective objects
- Watertight housing with IP67
- Can also be used in very cold regions down to –40°C

Safety

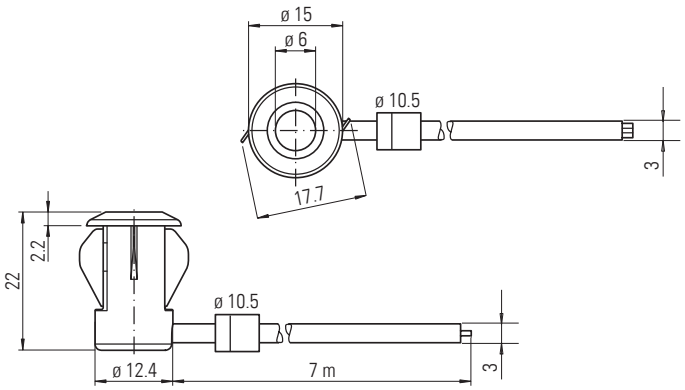
- Various frequencies to prevent devices affecting one another
- Integrated circuit

Functional principle





Dimensions



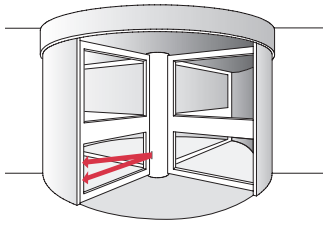


Applications

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

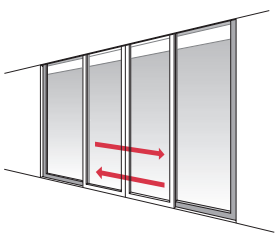
Benefits
- Optimised flow of people and energy consumption because the escalator is activated when passengers approach it
- Easier to integrate in overall system thanks to small dimensions



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	IRED
Type of light	Infrared, modulated light, 880 nm
Light spot diameter	approx. 1300 mm at a distance of 6 m
Aperture angle	Transmitter ± 8° Receiver ± 10°
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 ≤ 20 mA Receiver ≤ 10 mA
Connection type	7 m PVC fixed cable with 3-pin JST plug connector, diameter = 1.5 mm²
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	≤ 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. operating voltage ≤ 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



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Note
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