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
**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**

![Transmitter and Receiver Diagram]
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:**
  - **Signal output:**
    - LBDoor TB12.N./TB.12.D.N.: NPN output, all short-circuit-proof, with reverse polarity protection, with open collector
    - Max. 100 mA
    - ≤ 1.5 VDC
    - 62.5 Hz
    - 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:** EN 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

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### Note
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