

Applications



LB 03



One-Way Light Barrier

Ordering information

Article no.	Designation
F111.61000	LB 03 /NA
F111.61020	LB 03 /NP
F111.61040	LB 03 /PA
F111.61060	LB 03 /PP
F511.51221	Cover plate, Luran

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Note:

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D04 011 E 05/03 preliminary



One-Way Light Barrier

Simple and reliable

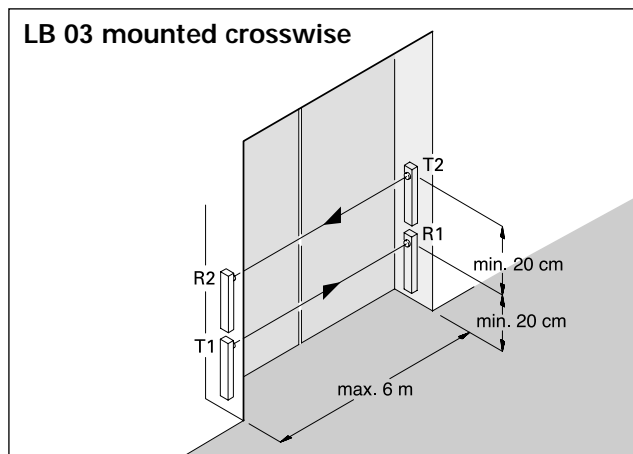
The LB 03 can be used for many applications. It is suitable for use wherever simple and reliable safeguarding by means of light barriers is required – up to a range of 6 m. This comprehensive one-way light barrier system particularly convinces with its high functional reliability, and the use of tried-and-tested technology ensures that excellent quality is achieved.

The LB 03 light barrier was developed on the basis of the proven Bircher Reglomat PLP 6 light barrier series. Like the PLP 6 series, it is characterized by its small design which enables space-saving and easy mounting, making it ideally suited for direct installation in profiles.

Installation and startup

The light barrier is suitable for use in accordance with IP65. Due to the fastening hole, it can easily be screw-fastened directly to the profile.

Of course it is also possible to mount two light barriers next to one another. The following installation requirements must be complied with:



The only adjustment that must be made when starting up the light barrier is the alignment of the transmitter and receiver. Alignment is made easier by the red LED on the receiver, which is visible from behind. The LED lights up as soon as the receiver «sees» the light emitted by the transmitter, which means the path for the light beam is free. In order to guarantee mechanical protection, e.g. against vandalism, the IR elements cannot be positioned from the outside when the unit is mounted.

The four versions

The LB 03 type is also electrically compatible with the PLP. With the four different output types, all requirements of the interface are met. The LB 03 is available either with an NPN or PNP output. In addition, the switching mode of the output can either be active or passive. Active means that the output switches when the path for the light beam is free. In passive switching mode, the output switches on detection of an object.

Your benefit

- high functional reliability due to the use of proven technology
- one light barrier for the entire range from 0 to 6 m
- low current consumption
- vandal-proof
- no adjustments / no programming necessary
- easy installation
- increased insensitivity to disturbing light

Testing

The function of the LB 03 light barrier can be tested by switching off the operating voltage (+UB). The fact that there is no separate test input for transmitter switch-off makes both the installation and the test procedure a lot easier.

Electrical connection

Installation of the LB 03 light barrier is much easier than with the previous model or similar products. In particular the fact that there is no test input makes electrical connection of the LB 03 very easy and uncomplicated.

Furthermore, the connection cable is soldered to the electronics PCB and firmly sealed in the housing. The light barrier is protected against polarity reversal and the output of the receiver is short-circuit proof.

Technical data

Operating voltage +UB	11-30 V DC
Operating voltage	max. 35 mA
Connection cable	transmitter: 2 x 0.25 mm ² , length 6 m receiver: 3 x 0.25 mm ² , length 6 m
Operating range	0-6 m
Technology	active infrared (AIR), approx. 880 nm
Aperture angle	± 8°
Signal output (versions)	LB 03 /NA: NPN active LB 03 /PA: PNP active LB 03 /NP: NPN passive LB 03 /PP: PNP passive
Switching voltage	max. 30 V DC
Switching current	max. 100 mA
Function indication	LED red, lights up when light path is free
Testing	transmitter switch-off with operating voltage (+UB), test active if +UB ≤ 5 V DC
Housing material	PMMA
Housing dimensions	11.6 x 85.2 x 9.2 mm
Weight	approx. 240 g
Protection class	suitable for use in acc. with IP65
Operating temperature	-20° C to +60° C
Air humidity	0% to 90% relative
Electromagnetic compatibility	EMC in accordance with directive 89/336 EEC, CE

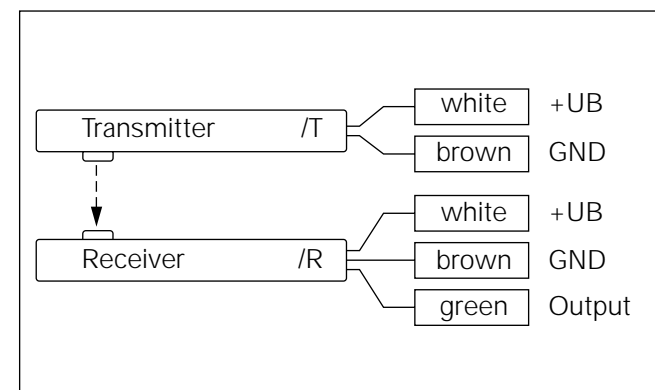
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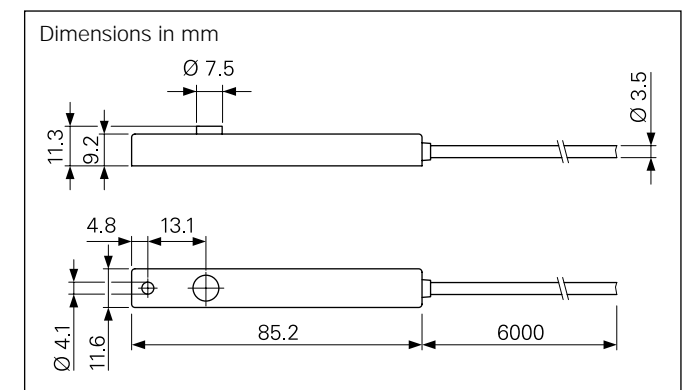
Notes

protected against polarity reversal at 24 V DC and +20° C
fixed cable connection, cable colour grey
2x signal reserve
pulsed approx. 20 kHz
open collector, short-circuit proof, response and drop-out time max. 5 ms
permanent current
at the back of receiver
response and drop-out time max. 10 ms
colour black
W x H x D (with optic system T = 11.3 mm)
per set incl. cable
without condensation
EN 61000-6-2 / EN 61000-6-3

Connection diagram



Dimensions



Accessories – Cover plate, Luran

