

Manual

Normal intended use

Laser fork light barriers are used as part of a much wider system for detecting the presence of objects.

EC-conformity

EMC-Directive emitted interference DIN EN 61000-6-3
 interference resistance DIN EN 61000-6-2

Low voltage directive 73/23/EWG / 93/68/EWG



Safety notes

Laser fork light barriers are not admissible for safety applications, especially in situations where human safety depends on how the equipment works.

The operator of the wider system, e.g. a piece of machinery, shall be responsible for adhering to the national and international safety and accident prevention rules that apply to the specific case in which the equipment is used.

When planning machinery and using laser fork light barriers, make sure that you adhere to the specific safety and accident prevention rules that apply to the situation, e.g.:

- EN 60204, electrical equipment of machines
- EN 292, safety of machines, general design principles
- DIN 57100 part 410, protection against hazardous shock currents


Installation and electrical connection work related to the laser fork light barriers should only be performed by qualified electricians in accordance with the applicable rules and regulations and when the machinery is **switched off** and the **electric current is isolated**. **The machine must be secured from being switched on again.**


Function

Laser fork light barriers work according to the principle established by through-beam sensors. They consist of a transmitter and a receiver which are housed in each 'limb' of a common housing. The transmitter to receiver beam direction is marked on the housing limbs using arrows. The transmitter diode complies with laser protection class 1.

The light beam emitted by the transmitter is permanently directed towards the receiver. The receiver output switches its status when the light beam is disrupted. The output function can be switched between 'NO' (dark-on mode) and 'NC' (light-on mode). The output state is indicated via a ring LED in the connector plug.

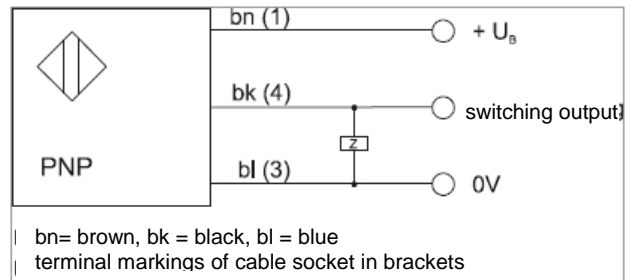
Installation

 Avoid exposure to external light on the part of the receiver!

 Mount the laser fork light barriers in such a way that the object to be detected can freely pass the fork opening. Depending on the model, installation takes place using M3, M4 or M5 screws (For a dimensional drawing, see data sheet 'eINLI1000' in our catalog and/or on our homepage)

Electrical connection

The electric circuitry is connected via a 3-pin M8 cable socket, e.g. **VK200071**.



LED display

The indicator functions by means of a yellow ring LED on the plug connector. When the LED is illuminated constantly, the switching output is activated.

Control elements


- Potentiometer sensitivity:

The equipment is most sensitive when the potentiometer is at the left stop. This is where the smallest parts are detected. At the same time, irradiation is at its lowest level.

The equipment is least sensitive when the potentiometer is at the right stop. This is where only large parts are detected. At the same time, irradiation is at its highest level. At this setting, the laser fork light barriers have a high soiling reserve.

- Output function:

The (NO/NC) output function can be set in most models using a rotary switch. For the respective switch setting that is necessary, please see the rating plate. In order to avoid unintentional switching, the rotary switch is covered with a rubber cap.

 In each case, move the start function switch to the maximum setting (to the right or left)! Intermediate settings lead to non-defined start states.

Maintenance and repair

Laser fork light barriers are practically maintenance-free. On a regular basis, remove any deposits on the lens of the fork light barrier using a soft cloth.

Repairs should only be carried out by ipf electronic gmbh.

Warranty

Statutory warranty conditions apply.

Technical Data

For technical data applicable to your fork light barrier, please refer to data sheet 'eINLI1000' in our catalog and/or on our homepage.



Laserclass 1 product
IEC 60825-1: 2007
entspricht 21 CFR, Part 1040.10
mit Ausnahme der Abweichungen
gemäß Laser Notice No. 50, Juni 2007