

Forked light barriers

Intended use


Fork light barriers are used as part of a higher-level overall system for detecting objects.


Function

Fork light barriers work according to the principle of the through-beam light barrier. They are made of a transmitter and a receiver, each housed in one side of the common housing. The beam direction transmitter to receiver is marked with arrows on the housing sides.

The light beam emitted by the transmitter is fixed to the receiver. The output of the receiver switches its mode when the light beam is interrupted. The output function can be switched between NO (dark switching) and NC (light switching). The initial condition is indicated by a ring LED in the connector plug.

Mounting

 Avoid external light on the receiver side! The beam direction from transmitter to receiver is marked with arrows on the housing sides.

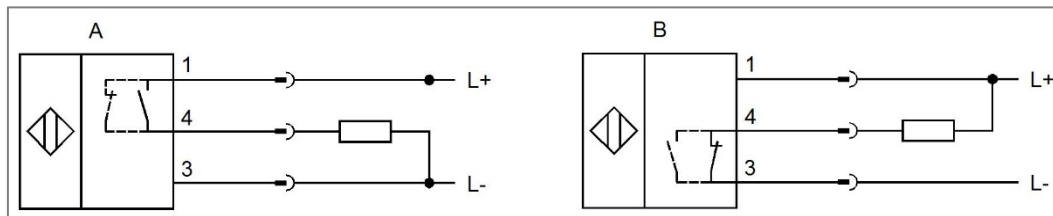
 Mount the fork light barrier so that the object to be detected can pass freely through the fork opening. Depending on the type, mounting is done with M3, M4 or M5 screws (For dimensional drawings please refer to our catalogue or on our homepage).

The device may be installed in any position, but make sure that it is installed in a vibration-free and vibration-damping manner. The device must be protected against mechanical stress, e.g. shocks or impacts.

Pay attention to the device-specific information on connection and operation. Do not operate the device outside the specified temperature limits.

Electrical connection

The electrical connection is made via a 3-pole M8 cable socket, e.g. VK200071. The device has a push-pull switching output and can be operated on both PNP and NPN control inputs.





LED display

The display is via a yellow ring LED on the connector. When the LED is constantly on, the switching output is active.

Operating ements

- Potentiometer response sensitivity:
 - The sensitivity is highest when the potentiometer is turned to the left. The smallest possible parts are recorded. The radiated power is the lowest in this case.
 - When the potentiometer is turned to the right, the sensitivity is at its lowest. So only larger parts are recorded. The radiant power is at the maximum. With this setting, the forked light barriers have a high contamination limit.
- Output function:
 - The output function (NO/NC) is set with a rotary switch. Please refer to the type plate for the required switch position. To prevent unintentional switching, the rotary switch is covered with a rubber cap.

 Always set the switch for the output function to the left or right stop!
 Intermediate positions lead to undefined initial conditions..

Maintenance and repair

Fork light barriers are almost maintenance-free. Remove deposits on the optics of the forked light barrier regularly with a soft tissue. Repair only by ipf electronic gmbh.

Warranty

The statutory warranty provisions shall be valid.

Technical data

For the technical data of the forked light barrier you are using, please refer to our catalogue or on our homepage www.ipf-electronic.com.

IO-Link

The devices are equipped with an IO-Link interface which can be used to make further settings with the assistance of an IO-Link master (e.g. VY000005) and the corresponding IODD file (download from our homepage). You can choose between 4 operating modes (standard, high resolution, power and speed), which has an effect on the resolution and the switching frequency.

Articel no.	Standard (factory setting)			High resolution (data typ.)			Power (data typ.)			Speed (data typ.)		
	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]
OG050571	0.2	0.02	10,000	0.1	0.02	5,000	1.0	0.02	250	0.2	0.02	14,000
OG100571	0.2	0.02	10,000	0.1	0.02	5,000	1.0	0.02	250	0.2	0.02	14,000
OG200572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG300572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG400572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG500572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG600572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG700572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG800572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OG900572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OGK00572	0.3	0.02	5,000	0.2	0.02	1,500	1.0	0.02	250	0.3	0.02	8,000
OGKB0572	0.5	0.02	5,000	0.3	0.02	1,500	1.5	0.02	250	0.5	0.02	8,000
OGKE0572	0.5	0.03	5,000	0.4	0.03	1,500	1.5	0.03	250	0.5	0.03	8,000
OGKG0572	0.5	0.03	5,000	0.4	0.03	1,500	1.5	0.03	250	0.5	0.03	8,000
OGLB0572	1.0	0.03	5,000	0.8	0.03	1,500	1.5	0.03	250	1.0	0.03	6,500
OGLE0572	1.0	0.03	5,000	0.8	0.03	1,500	1.5	0.03	250	1.0	0.03	6,500

Articel no.	Standard (factory setting)			High resolution (data typ.)			Power (data typ.)			Speed (data typ.)		
	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]	Resolution [mm]	Reproducibility [mm]	Switching frequency [Hz]
OG300576	0.3	0.02	5,000	0.2	0.02	1,500	2.0	0.03	200	0.3	0.02	8,000
OG500576	0.3	0.02	5,000	0.2	0.02	1,500	2.0	0.03	200	0.3	0.02	8,000
OGKE0576	0.5	0.03	5,000	0.4	0.03	1,500	3.0	0.03	200	0.5	0.03	8,000

SAFETY NOTES:

Before commissioning, please ensure that all safety instructions in the product documentation, if applicable, have been observed.!

If there is a direct risk to personal safety, the use of these products is prohibited.