

TLB Series

▶ FKB-06-P

Fork light barriers

- Insensitive to outside light due to optical filtering
- Various fork sizes available
- Various aperture sizes available
- Oil resistant connecting cable
- High resolution
- Sturdy metal housing
- Alternatively version with visible red light beam or IR version

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Design

Product name:

FKB-06-(fork size)-(aperture)-(type)-P-500 (fork light barrier, 8-pin connector, cable l=500 mm)
FKB-06-(fork size)-(aperture)-(type)-P-1000 (fork light barrier, 8-pin connector, cable l=1000 mm)

Available fork sizes: (cf. dimensions page 3)

5/10 (fork width A=5 mm, fork depth B=10 mm)
10/10 (fork width A=10 mm, fork depth B=10 mm)
10/15 (fork width A=10 mm, fork depth B=15 mm)

Available types:

IR (infrared light beam)
VIS (visible red light beam)

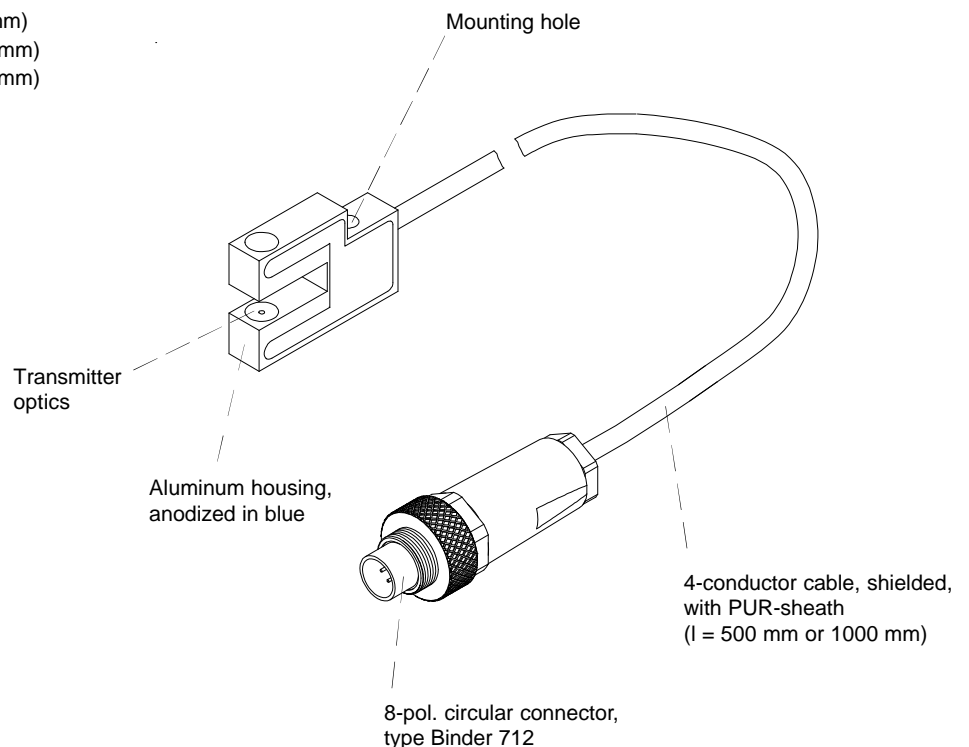
Available apertures:

for type IR:

d0.4 (circular aperture Ø 0.4 mm)
d0.6 (circular aperture Ø 0.6 mm)
d0.8 (circular aperture Ø 0.8 mm)
d1.0 (circular aperture Ø 1.0 mm)
d1.2 (circular aperture Ø 1.2 mm)


for type VIS:

d0.6 (circular aperture Ø 0.6 mm)
d0.8 (circular aperture Ø 0.8 mm)
d1.0 (circular aperture Ø 1.0 mm)
d1.2 (circular aperture Ø 1.2 mm)





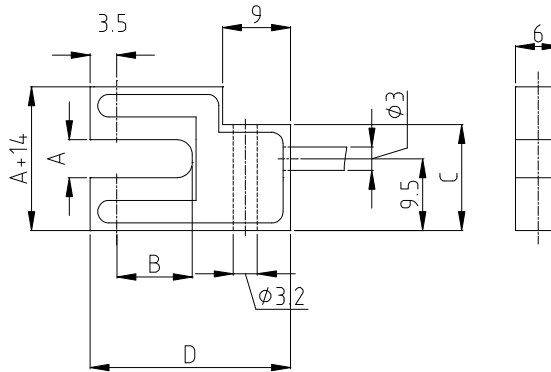
Technical Data

| | |
|---|--|
| Model | FKB-06-P |
| Transmitter | IR type: IR-LED, 905 nm, DC operation: max. opt. power < 0,4 mW, AC operation: medium opt. power < 0,4 mW VIS type: red LED 660 nm, opt. power 0,4 mW |
| Minimum detectable object | typ. 10 µm (DC operation, depending on the aperture), typ. 200 µm (AC operation) |
| Light spot dimension (at transmitter output) | IR type: Ø 0.6 mm, 0.8 mm, 1.0 mm, or 1.2 mm VIS type: Ø 0.8 mm |
| Repeatability | typ. 10 µm |
| Optical filter | IR type: Daylight rejection filter RG715 VIS type: IR rejection filter KG2 |
| Receiver aperture | IR type: Ø 0.4 mm, 0.6 mm, 0.8 mm, 1.0 mm, or 1.2 mm VIS type: Ø 0.6 mm, 0.8 mm, 1.0 mm, or 1.2 mm |
| EMC test acc. to | IEC - 801...  |
| Ambient light | up to 5000 Lux (AC operation) |
| Cable type | PUR sheath, black, 4-conductor, shielded |
| Cable length | 500 mm or 1000 mm |
| Mechanical protection | IP67 |
| Connector type | 8-pin circular connector, type Binder 712 |
| Operating temperature range | -20°C ... +80°C |
| Storage temperature range | -20°C ... +80°C |
| Housing | Aluminum, anodized in blue |
| Housing dimensions | see page 3 |

Dimensions

FKB-06-(fork size):

| Fork size | dim. A | dim. B | dim. C | dim. D |
|-----------|--------|--------|--------|---------|
| 5/10 | 5 mm | 10 mm | 14 mm | 26.5 mm |
| 10/10 | 10 mm | 10 mm | 19 mm | 26.5 mm |
| 10/15 | 10 mm | 15 mm | 19 mm | 31.5 mm |



Fork size 5/10
without inner radius

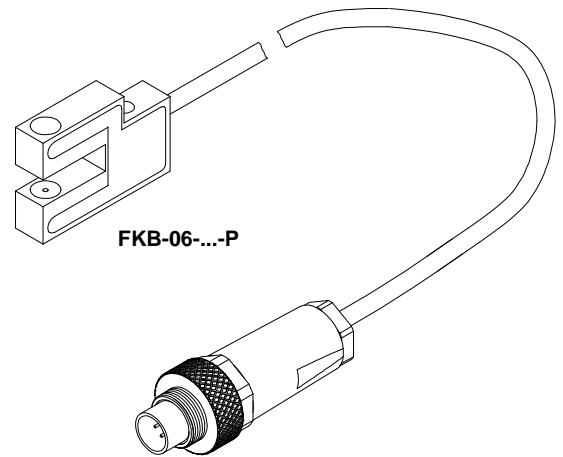
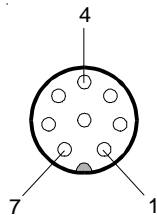
Fork sizes 10/10 and 10/15
with inner radius R=2

(All dimensions in mm)

Connector Assignment

Assignment 8-pin circular connector, type Binder 712:

| Pin: | Assignment: |
|--------|---------------------|
| 1 | n.c. |
| 2 | n.c. |
| 3 | Transmitter anode |
| 4 | Receiver collector |
| 5 | Transmitter cathode |
| 6 | Receiver emitter |
| 7 | n.c. |
| 8 | n.c. |
| Shield | |



Product Line

Fork light barriers:

FKB-06-...
FKB-06-...-P
 FKB-06-...-TPN
 FKB-06-...-TPO

FKB-06-...-BL
 FKB-06-...-BL-P
 FKB-06-...-BL-TPN
 FKB-06-...-BL-TPO

FKB-08-...
 FKB-08-...-P
 FKB-08-...-TPN
 FKB-08-...-TPO

FKB-08-...-BL
 FKB-08-...-BL-P
 FKB-08-...-BL-TPN
 FKB-08-...-BL-TPO

Split light barriers:

SLB-01
 SLB-01-P
 SLB-01-TP

SLB-02
 SLB-02-P
 SLB-02-TP

SLB-03
 SLB-03-P
 SLB-03-TP

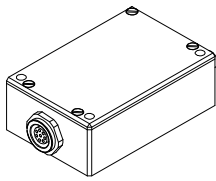
SLB-04
 SLB-04-P
 SLB-04-TPN
 SLB-04-TPO

SLB-05
 SLB-05-P
 SLB-05-TPN
 SLB-05-TPO

SLB-06
 SLB-06-P
 SLB-06-TP

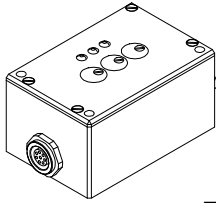
SLB-08
 SLB-08-P
 SLB-08-TP

Pulsating light amplifiers:



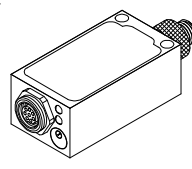
TLB-CON5

Connecting cables:
 cab-M8/4-g-2 (2m)
 cab-las5/PC (5m)



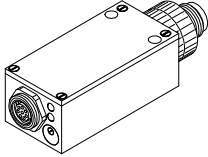
TLB-CON6

Connecting cable:
 cab-las8/702-fem (2m)



TLB-CON8

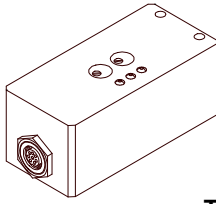
Connecting cable:
 cab-M8/3-g-2 (2m)



TLB-CON12

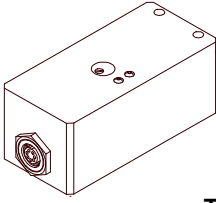
Connecting cable:
 cab-M12/5-g-2-shd (2m)

Constant light amplifiers:



TLB-CON2

Connecting cable:
 cab-las8/702-fem (2m)



TLB-CON11

Connecting cable:
 cab-las8/702-fem (2m)

