

# TLB Series

## ▶ FKB-08-...-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



## Design

### Product name:

- FKB-08-(fork size)-(aperture)-(type)-P-500** (fork light barrier, 8-pin connector, cable l=500 mm)  
**FKB-08-(fork size)-(aperture)-(type)-P-1000** (fork light barrier, 8-pin connector, cable l=1000 mm)

#### Available fork sizes: (dimensions cf. page 3) for type IR and VIS:

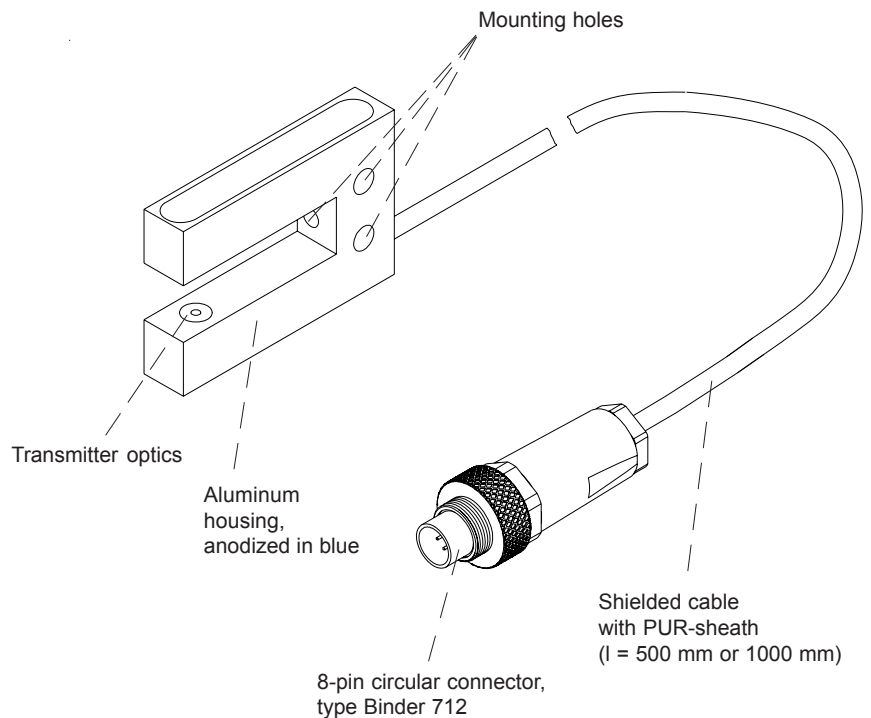
- 10/15** (fork width A=10 mm, fork depth B=15 mm)
  - 10/30** (fork width A=10 mm, fork depth B=30 mm)
  - 20/15** (fork width A=20 mm, fork depth B=15 mm)
  - 20/20** (fork width A=20 mm, fork depth B=20 mm)
  - 20/30** (fork width A=20 mm, fork depth B=30 mm)
  - 20/40** (fork width A=20 mm, fork depth B=40 mm)
  - 20/60** (fork width A=20 mm, fork depth B=60 mm)
  - 20/80** (fork width A=20 mm, fork depth B=80 mm)
  - 30/15** (fork width A=30 mm, fork depth B=15 mm)
  - 30/30** (fork width A=30 mm, fork depth B=30 mm)
- for type IR:
- 40/40** (fork width A=40 mm, fork depth B=40 mm)
  - 40/60** (fork width A=40 mm, fork depth B=60 mm)
  - 40/80** (fork width A=40 mm, fork depth B=80 mm)
  - 80/50** (fork width A=80 mm, fork depth B=50 mm)
  - 100/60** (fork width A=100 mm, fork depth B=60 mm)

#### Available Types:

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

#### Available apertures: (circular apertures, Ø in mm)

Size	Type IR	Type VIS
<b>10/15</b>	d0.6, d0.8, d1.0	d0.6, d0.8, d1.0
<b>10/30</b>	d0.6, d0.8, d1.0	d0.6, d0.8, d1.0
<b>20/15</b>	d0.8, d1.0	d0.8, d1.0
<b>20/20</b>	d0.8, d1.0	d0.8, d1.0
<b>20/30</b>	d0.8, d1.0	d0.8, d1.0
<b>20/40</b>	d0.8, d1.0	d0.8, d1.0
<b>20/60</b>	d0.8, d1.0	d0.8, d1.0
<b>20/80</b>	d0.8, d1.0	d0.8, d1.0
<b>30/15</b>	d0.8, d1.0, d1.2	d0.8, d1.0, d1.2
<b>30/30</b>	d0.8, d1.0, d1.2	d0.8, d1.0, d1.2
<b>40/40</b>	d1.0, d1.2	---
<b>40/60</b>	d1.0, d1.2	---
<b>40/80</b>	d1.0, d1.2	---
<b>80/50</b>	d1.5	---
<b>100/60</b>	d1.5	---



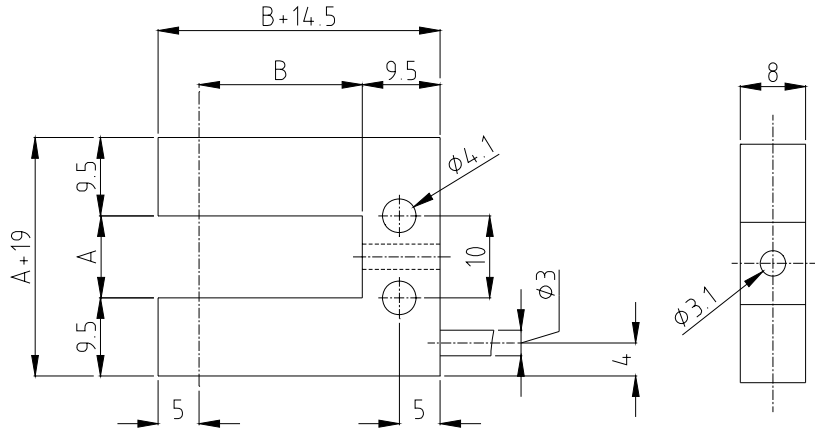

**Technical Data**

Model	FKB-08-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 0.6 mm, 0.8 mm, 1.0 mm, 1.2 mm, or 1.5 mm (depends on fork size) VIS type: Ø 0.6 mm, 0.8 mm, 1.0 mm, or 1.2 mm (depends on fork size)
EMC test acc. to	DIN EN 60947-5-2
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-pole 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-08-(fork size):

Fork size	dim. A	dim. B
10/15	10 mm	15 mm
10/30	10 mm	30 mm
20/15	20 mm	15 mm
20/20	20 mm	20 mm
20/30	20 mm	30 mm
20/40	20 mm	40 mm
20/60	20 mm	60 mm
20/80	20 mm	80 mm
30/15	30 mm	15 mm
30/30	30 mm	30 mm
40/40	40 mm	40 mm
40/60	40 mm	60 mm
40/80	40 mm	80 mm
80/50	80 mm	50 mm
100/60	100 mm	60 mm

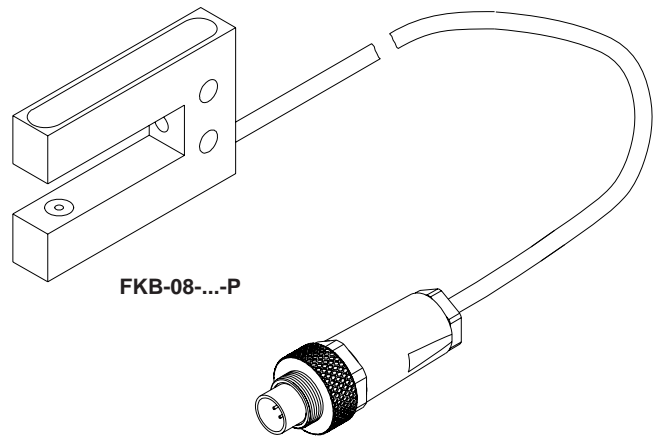
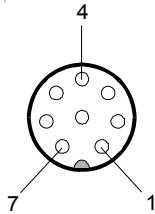


(All dimensions in mm)

**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

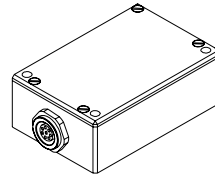
SLB-04  
SLB-04-P  
SLB-04-TPN  
SLB-04-TPO

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

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

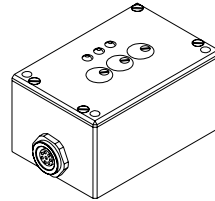
SLB-08  
SLB-08-P  
SLB-08-TP

**Pulsating light amplifiers:**



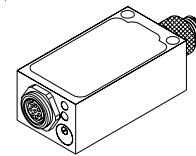
**TLB-CON5**

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



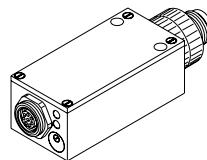
**TLB-CON6**

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



**TLB-CON8**

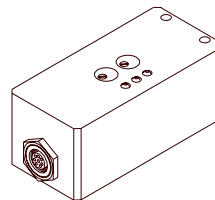
Connecting cable:  
cab-M8/3-g-2 (2m)



**TLB-CON12**

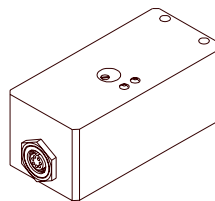
Connecting cable:  
cab-M12/4-g-2-shd (2m)

**Constant light amplifiers:**



**TLB-CON2**

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



**TLB-CON11**

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