

# TLB Series

## ► FKB-06-M8

### Fork light barriers

- Insensitive to outside light due to optical filtering
- Various fork sizes available
- Various aperture sizes available
- 4-pin M8-connector
- High resolution
- Sturdy metal housing
- Alternatively version with visible red light beam or IR version
- For connection with amplifier TLB-CON12-M8

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## Design

### Product name:

**FKB-06-(fork size)-(aperture)-(type)-M8**

**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)

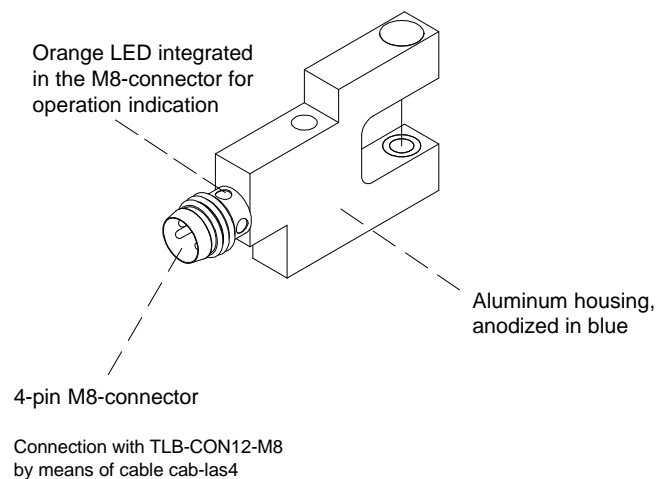
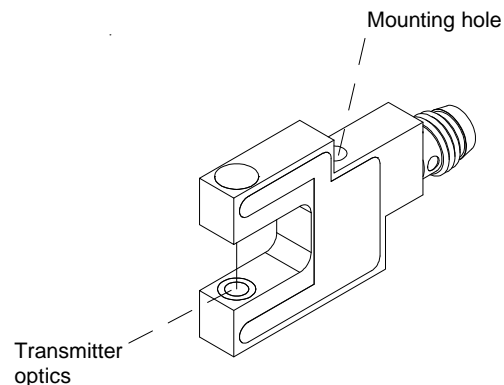
**Available apertures:**

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)



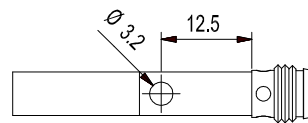
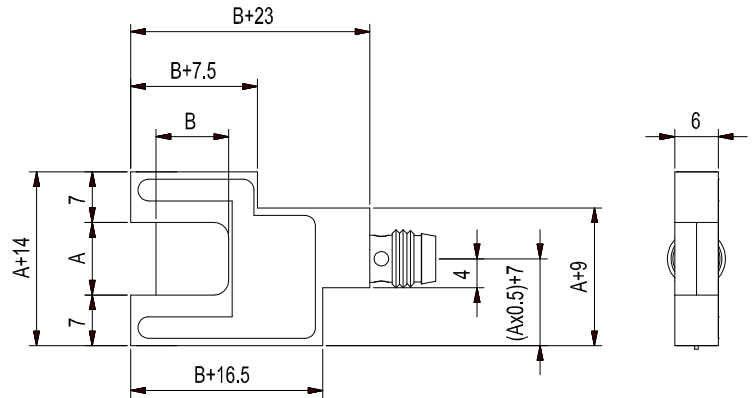

**Technical Data**

<b>Model</b>	<b>FKB-06-M8</b>
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)
Connector type	4-pin M8-connector
Connecting cable	cab-las4 (available in various lengths 1m, 1.5m, 2m, 3m, or 5m)
Operation indication	by means of an orange LED integrated in the M8-connector
Mechanical protection	IP67
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



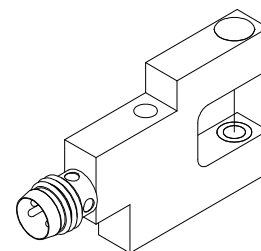
Fork size 5/10 without inner radius  
 Fork sizes 10/10 and 10/15 with inner radius R=2

(All dimensions in mm)

Connector Assignment

Connector assignment 4-pin M8-connector:

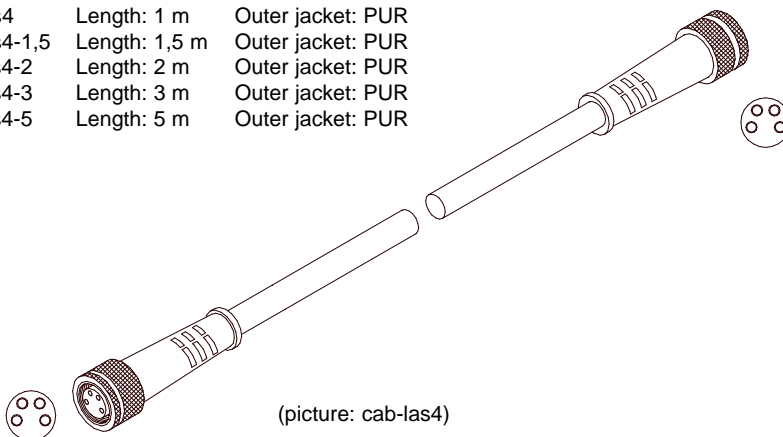
Pin No.:	Assignment:
1	Transmitter anode
2	Transmitter cathode + receiver emitter
3	n.c.
4	Emitter cathode



FKB-06-...-M8

Connecting cable for connection with TLB-CON12-M8:

cab-las4	Length: 1 m	Outer jacket: PUR
cab-las4-1,5	Length: 1,5 m	Outer jacket: PUR
cab-las4-2	Length: 2 m	Outer jacket: PUR
cab-las4-3	Length: 3 m	Outer jacket: PUR
cab-las4-5	Length: 5 m	Outer jacket: PUR

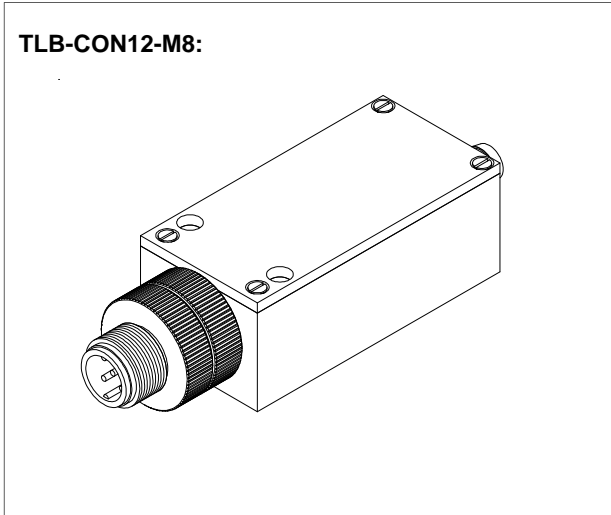


(picture: cab-las4)

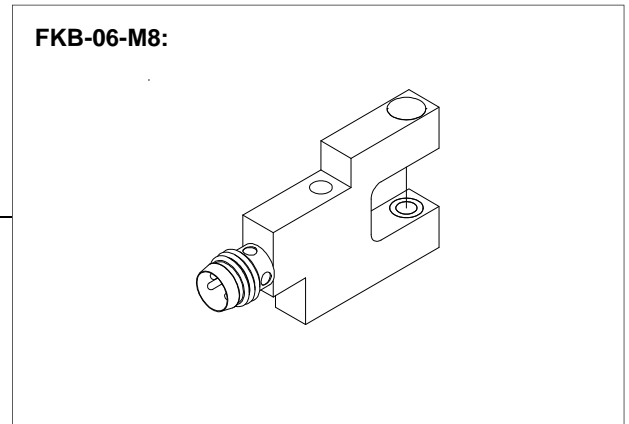


Product Line

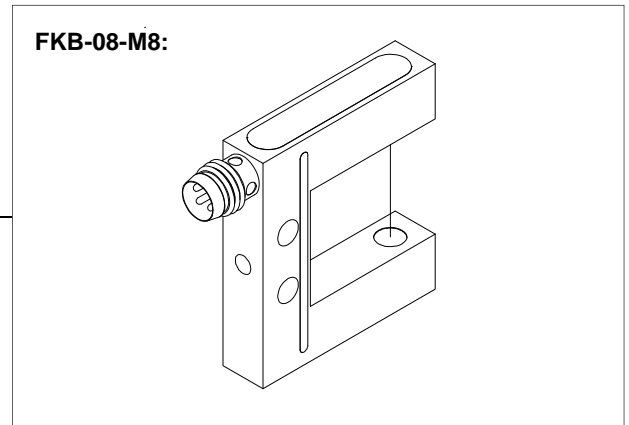
TLB-CON12-M8:



FKB-06-M8:



FKB-08-M8:



Connecting cable:  
cab-las4



Interfacing

Connection of TLB-CON12-M8:

Up to 8 amplifiers of type TLB-CON12-M8 can be connected to the die control unit via an interface box of type:

- BOX-M12/4** (4-fold)
- BOX-M12/6** (6-fold, see picture opposite)
- BOX-M12/8** (8-fold)

