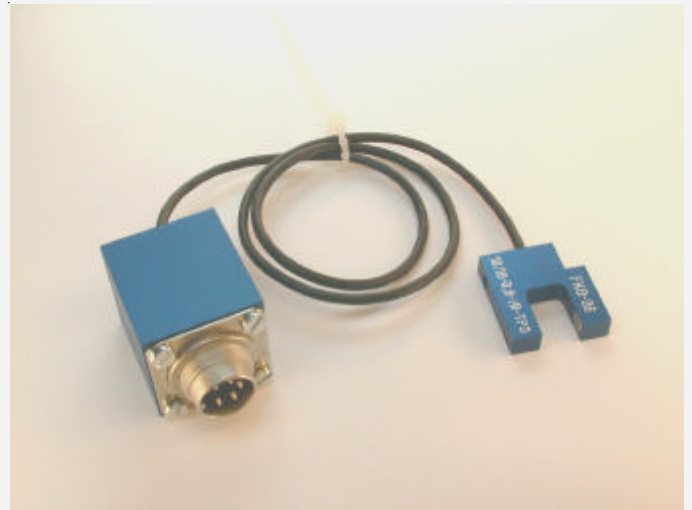


TLB Series

▶ **FKB-06-TPO**

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-06-(fork size)-(aperture)-(type)-TPO-500 (fork light barrier, tool plug with 5-pin 270° connector, cable l=500 mm)
FKB-06-(fork size)-(aperture)-(type)-TPO-1000 (fork light barrier, tool plug with 5-pin 270° 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)

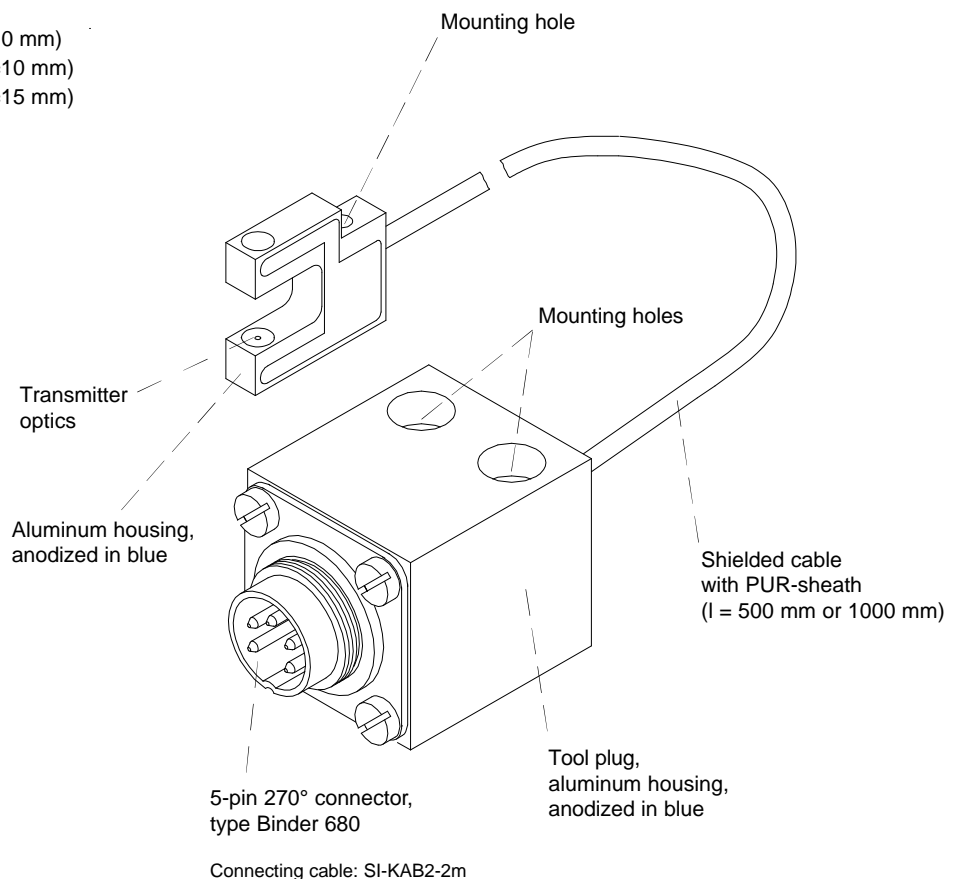
Available apertures:

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)



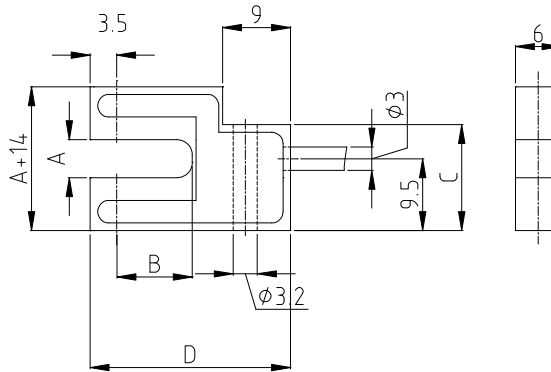

Technical Data

| | |
|---|--|
| Model | FKB-06-TPO |
| 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 | Tool plug with 5-pin 270° connector, type Binder 680 |
| 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

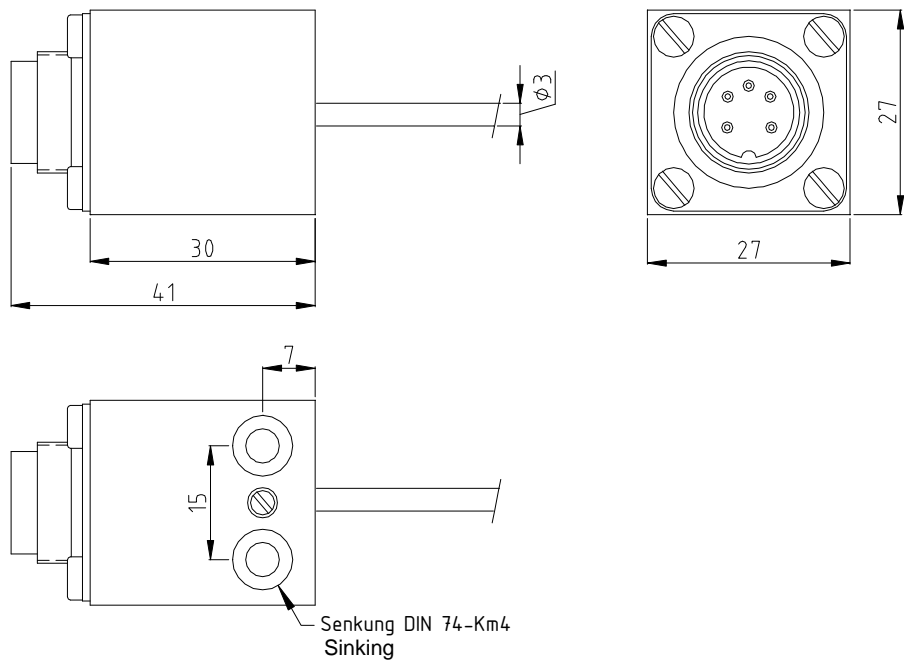
FKB-06-(fork size):

| 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)

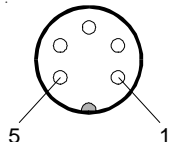
TPO (tool plug):



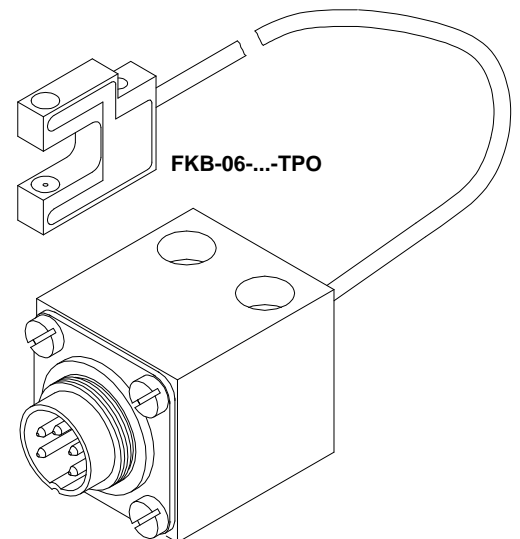
Connector Assignment

Assignment 5-pin 270° connector, type Binder 680:

| Pin: | Assignment: |
|------|--|
| 1 | Transmitter cathode / Receiver emitter |
| 2 | n.c. |
| 3 | n.c. |
| 4 | Transmitter anode |
| 5 | Receiver collector |



Connecting cable: SI-KAB2-2m
 (1x 5-pole female connector Binder Series 680,
 1x 5-pole connector Binder Series 680)





Product Line

Fork light barriers:

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

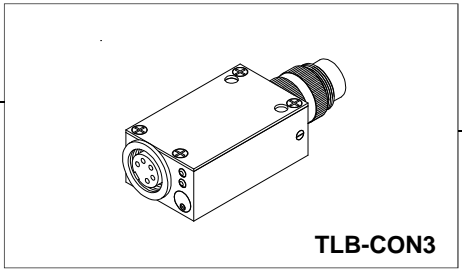
Connecting cable:
SI-KAB2 (2m)

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

Pulsating light amplifier:



Connecting cable:
SI-KAB2 (2m)

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