

TLB Series

FKB-08-...-TPN

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

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

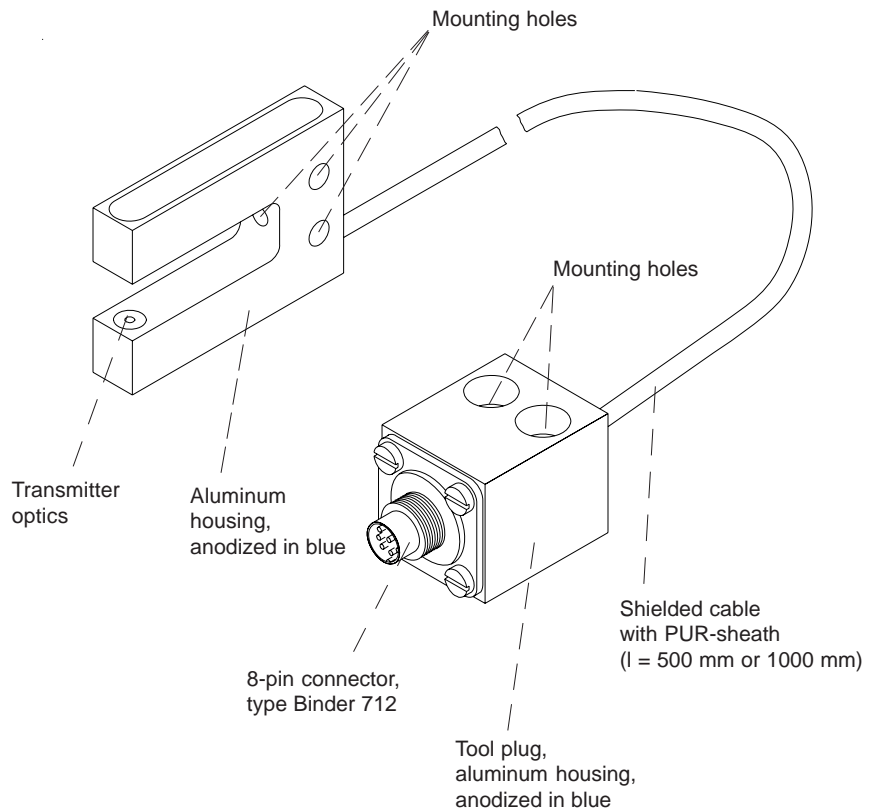
- 10/15** (fork width A=10 mm, fork depth B=15 mm)
 - 10/30** (fork width A=10 mm, fork depth B=30 mm)
 - 20/15** (fork width A=20 mm, fork depth B=15 mm)
 - 20/20** (fork width A=20 mm, fork depth B=20 mm)
 - 20/30** (fork width A=20 mm, fork depth B=30 mm)
 - 20/40** (fork width A=20 mm, fork depth 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 apertures: (circular apertures, Ø in mm)

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

Available Types:

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



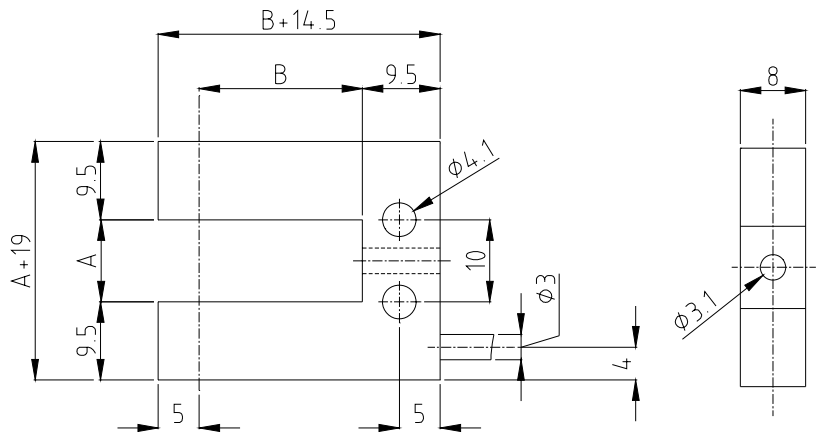

Technical Data

Model	FKB-08-TPN
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	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 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

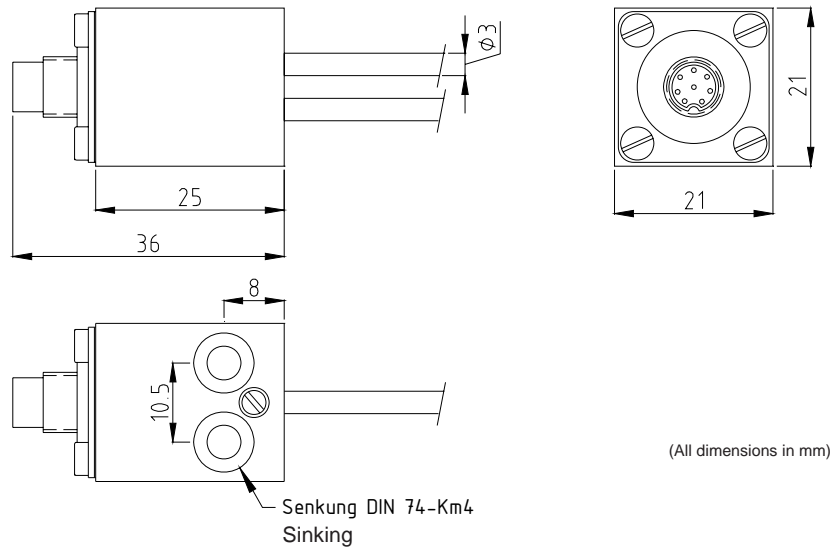
Dimensions

FKB-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



TPN (tool plug):

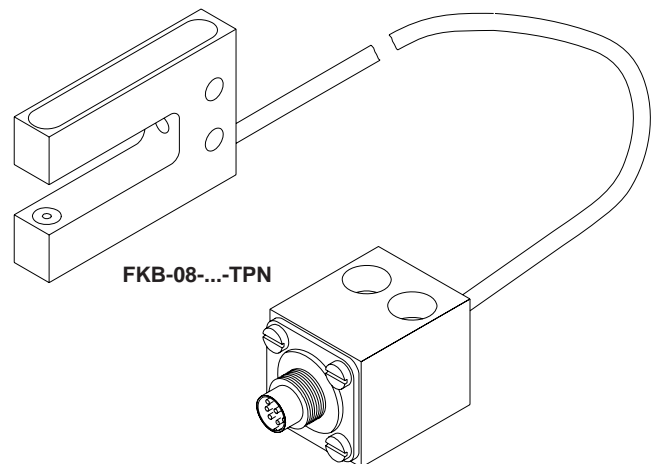
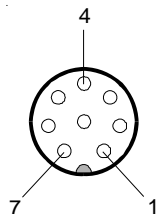


(All dimensions in mm)

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

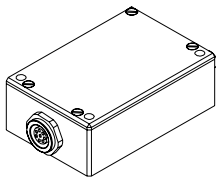
SLB-05
SLB-05-P
SLB-05-TPN
SLB-05-TPO

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

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

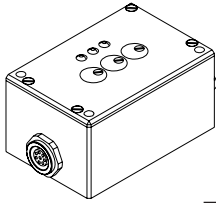
Connecting cable:
cab-tlb8/702 (2m)

Pulsating light amplifiers:



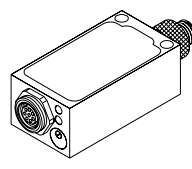
TLB-CON5

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



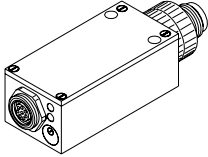
TLB-CON6

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



TLB-CON8

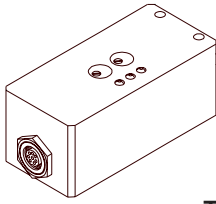
Connecting cable:
cab-M8/3-g-2 (2m)



TLB-CON12

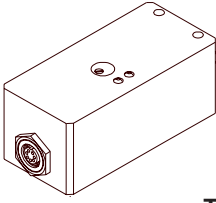
Connecting cable:
cab-M12/5-g-2-shd (2m)

Constant light amplifiers:



TLB-CON2

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



TLB-CON11

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

