

# TLB Series

## ▶ TLB-CON2 Constant light amplifier

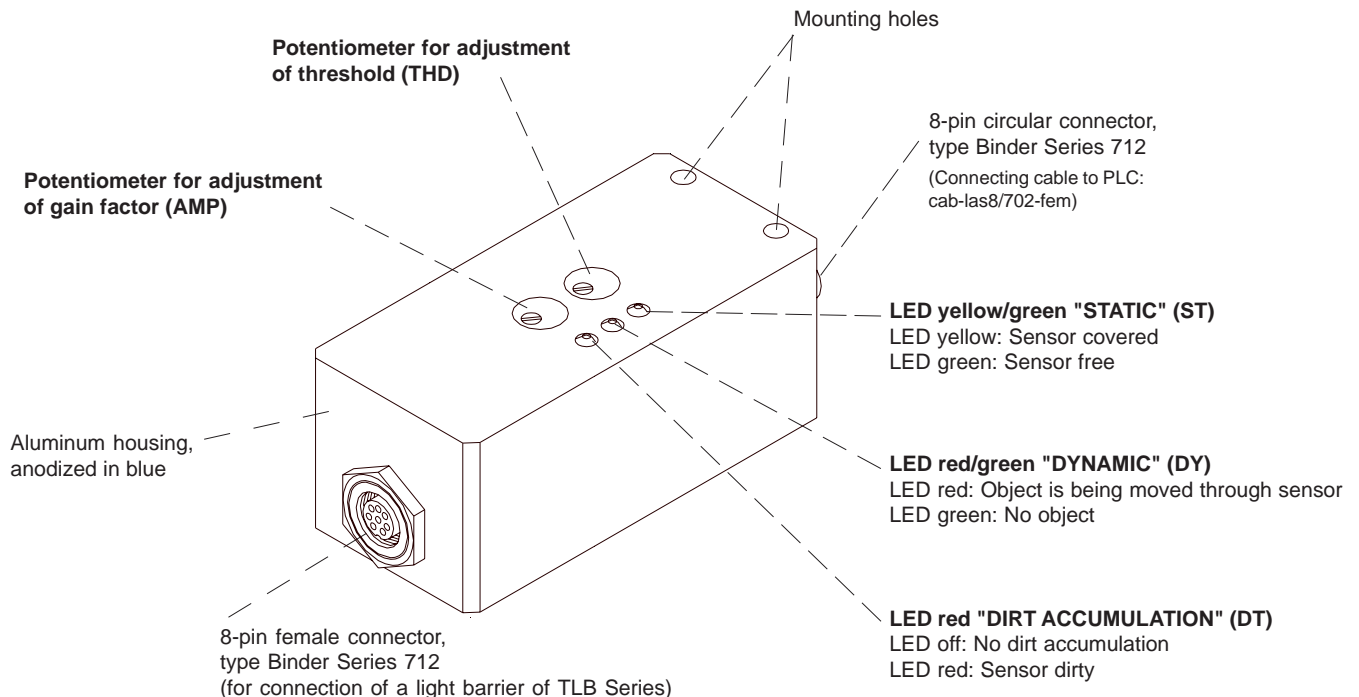
- For connection of fork light barriers FKB-... or split light barriers SLB-... with 8-pole connector (type P, TP, or TPN)
- Bright- and dark-switching
- Outputs short-circuit protected
- High switching frequency (typ. 25 kHz)
- Switching state indication by means of a yellow/green-LED
- Push-pull output stage (appropriate for npn and pnp)
- Sturdy aluminum housing



## Design

### Product name:

TLB-CON2



Suitable for connection of fork light barriers or split light barriers of TLB Series with 8-pole connector (cf. page 4):

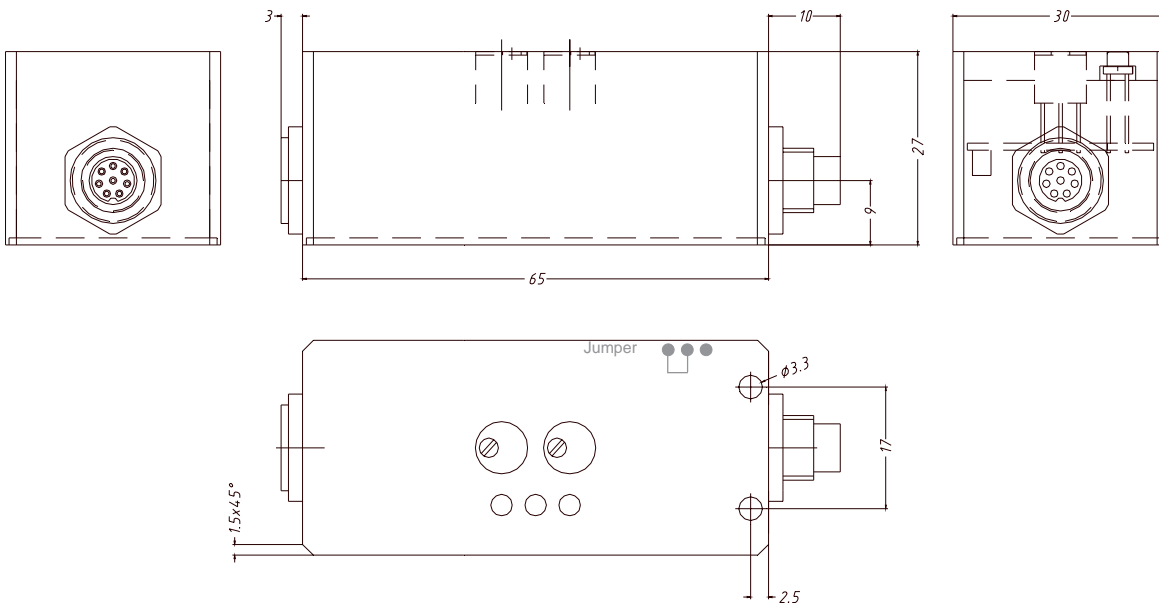
FKB-...-P  
 FKB-...-TPN  
 FKB-...-BL-P  
 FKB-...-BL-TPN  
 SLB-...-P  
 SLB-...-TP  
 SLB-...-TPN



**Technical Data**

Model	TLB-CON2
Voltage supply	+12VDC ... +32VDC Ripple 10% max.
Current consumption	with TLB light barrier: typ. 80 mA
Operating temperature range	-20°C ... +60°C
Storage temperature range	-20°C ... +85°C
Housing	Material: Aluminum, anodized in blue Dimensions: approx. 65 mm x 27 mm x 30 mm
Mechanical protection	IP 64
Threshold correction	Adjustable via integrated jumper
Output ANALOG	0V ... +10V
Output DIGITAL STATIC	2x static: Q: npn dark-switching (npn normally open) / pnp bright-switching (pnp normally closed) Qinv: npn bright-switching (npn normally closed) / pnp dark-switching (pnp normally open)
Output DIGITAL DYNAMIC	1x dynamic (pulse length 15 ms): Q: npn dark-switching (npn normally open) / pnp bright-switching (pnp normally closed) (Alternatively: Qinv: npn bright-switching (npn normally closed) / pnp dark-switching (pnp normally open)
Potentiometer for gain	3-revolutions potentiometer integrated in the housing
Potentiometer for trigger threshold	3-revolutions potentiometer integrated in the housing
Dirt accumulation indication	LED red
Switching state indication STATIC	via yellow/green LED
Switching state indication DYNAMIC	via red/green LED
Connector type	Connection to PLC: 8-pin circular connector, type Binder 712 Connection to TLB light barrier: Via cable integrated at the light barrier
Switching state indication	Typ. 25 kHz
Max. switching current	200 mA, short circuit protection
Band width analog signal	50 kHz (-3dB)
EMC test acc. to	IEC - 801...

Dimensions



(All dimensions in mm)

Setting

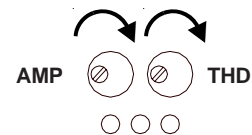
**Jumper for adjustment or threshold correction**  
(Jumper under housing cover)

Jumper setting:

- Jumper at the right = Threshold correction TC (standard adjustment !)
- alternatively: Jumper at the left = Fixed threshold

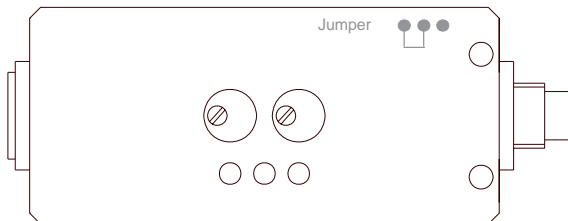
**Potentiometer for adjustment of gain factor (AMP)**

Rotation clockwise:  
Increase of analog signal  
(3-revolutions potentiometer)



**Potentiometer for adjustment of threshold (THD)**

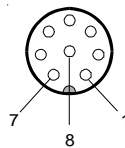
Rotation clockwise:  
Increase of sensitivity  
(3-revolutions potentiometer)



Connector Assignment

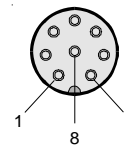
**8-pin circular connector, type Binder 712**  
(Connection to PLC):

Pin-No.:	(Color)	Belegung:
1	(wht)	GND (0V)
2	(brn)	+Ub
3	(grn)	THD
4	(yel)	DIRT
5	(gry)	OUT
6	(pnk)	OUT/
7	(blu)	PULSE
8	(red)	ANALOG (0V ... +10V)



**8-pin female connector, type Binder 712**  
(Connection to TLB light barrier):

Pin-No.:	Assignment:
1	Transmitter cathode 3
2	GND (0V)
3	Transmitter anode (+12V)
4	Receiver collector
5	Transmitter cathode 1
6	Receiver emitter
7	Transmitter cathode 2
8	GND (0V)

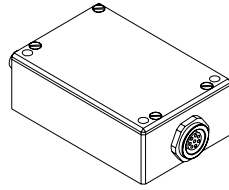


Connecting cable: cab-las8/702-fem (l=2m)

Product Line

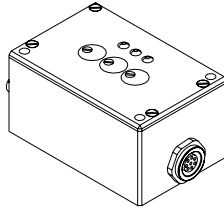
Pulsating light amplifiers:

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



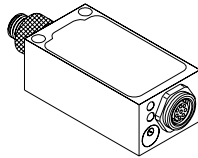
TLB-CON5

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



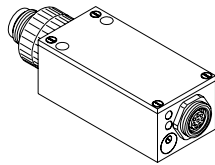
TLB-CON6

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



TLB-CON8

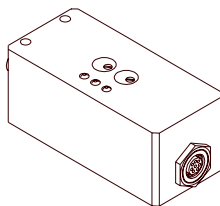
Connecting cable:  
cab-M12/5-g-2-shd (2m)



TLB-CON12

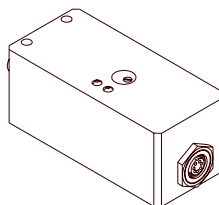
Constant light amplifiers:

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



TLB-CON2

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



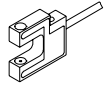
TLB-CON11

Connecting cable for  
types ...-TPN and ...-TP:  
cab-tlb8/702 (2m)

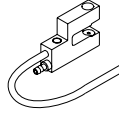
Fork light barriers:

(Connection via 8-pol. connector 712)

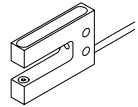
FKB-06-...-P  
FKB-06-...-TPN



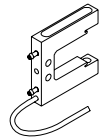
FKB-06-...-BL-P  
FKB-06-...-BL-TPN



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



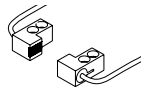
FKB-08-...-BL-P  
FKB-08-...-BL-TPN



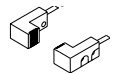
Split light barriers:

(Connection via 8-pin connector 712)

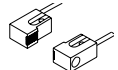
SLB-01-P  
SLB-01-TP



SLB-02-P  
SLB-02-TP



SLB-03-P  
SLB-03-TP



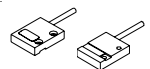
SLB-04-P  
SLB-04-TPN



SLB-05-P  
SLB-05-TPN



SLB-06-P  
SLB-06-TPN



SLB-08-P  
SLB-08-TPN

