

# TLB Series

## ▶ TLB-CON1/2 Constant light amplifier

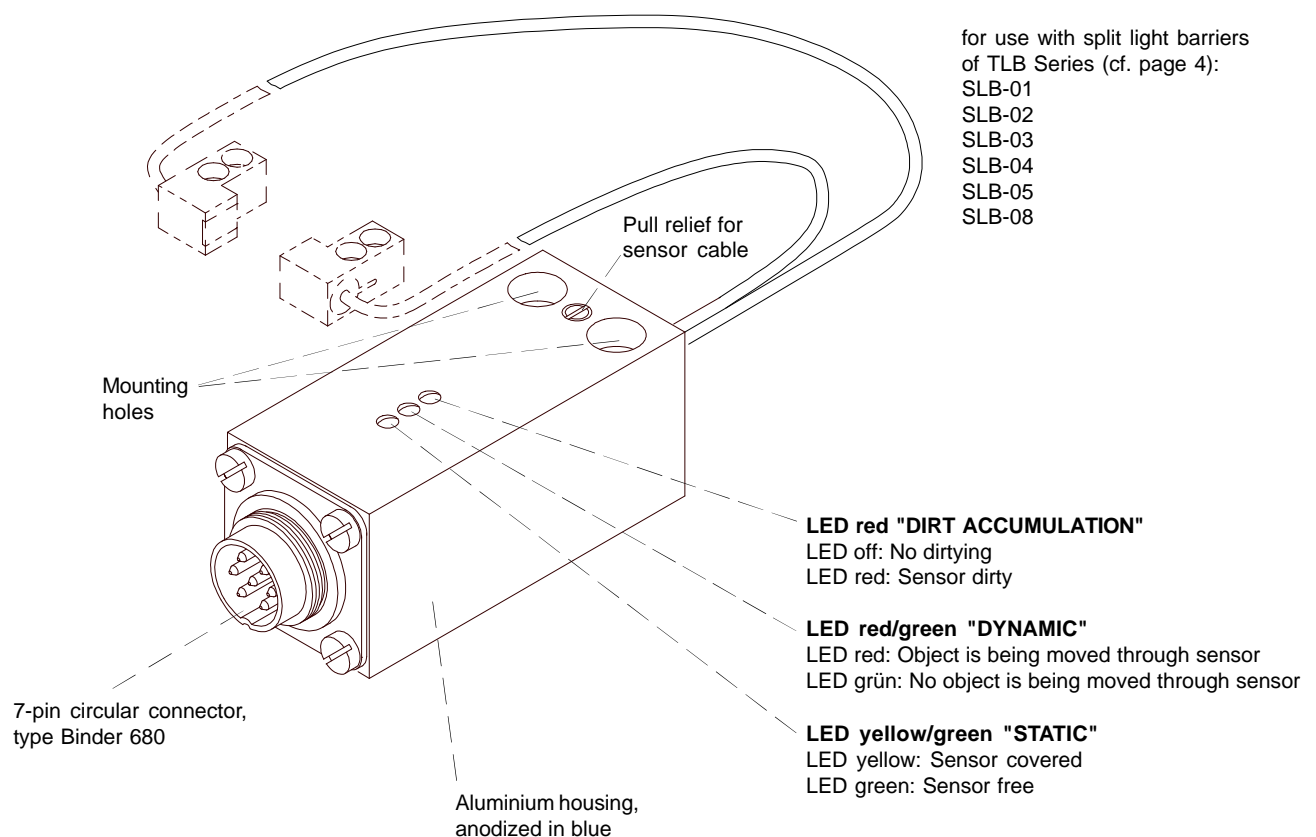
- Sensitivity and gain adjustable by means of two potentiometers (inside the housing)
- Switching state indication by means of a yellow/green LED
- Dynamic and static output, analog output
- Threshold correction can be activated
- High switching frequency (typ. 25 kHz)
- Dirt accumulation indication by means of a red LED
- Bright- and dark-switching
- Push-pull output stage (appropriate for npn and pnp)



## Design

### Product name:

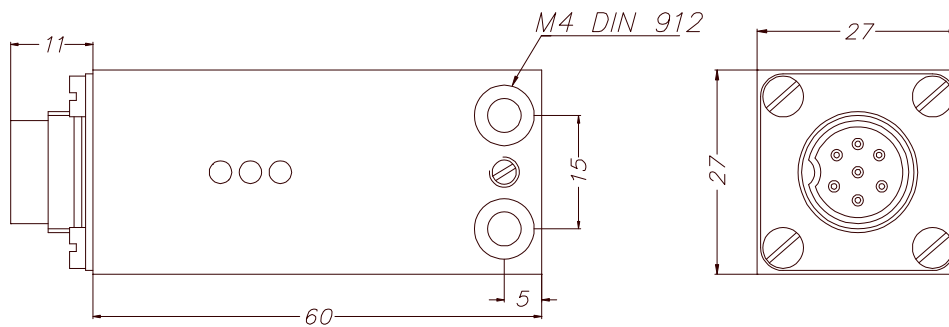
TLB-CON1/2




**Technical Data**

Model	TLB-CON1/2
Voltage supply	+12VDC ... +32VDC ripple 10% max.
Current consumption	with sensor: typ. 80 mA
Operating temperature range	-20°C ... +60°C
Storage temperature range	-20°C... +85°C
Housing	Aluminum, anodized in blue; dimensions approx. 60 mm x 27 mm x 27 mm
Mechanical protection	IP 64
Threshold correction	adjustable by means of 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	2x dynamic (pulse length 15 ms) 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)
Potentiometer for gain	10-step potentiometer (integrated in the housing)
Potentiometer for trigger threshold	10-step potentiometer (integrated in the housing)
Dirt accumulation indication	by means of a red LED
Switching state indication STATIC	yellow/green LED (yellow= sensor covered, green = sensor free)
Switching state indication DYNAMIC	red/green LED (red = object is moved through sensor, green = no object is moved through sensor)
Connector type	Connection to PLC: 7-pin flange connector, type Binder 680 Connection to sensor by means of sensor cable
Connecting cable	cab-las-agl7 (l=2m)
Switching frequency	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



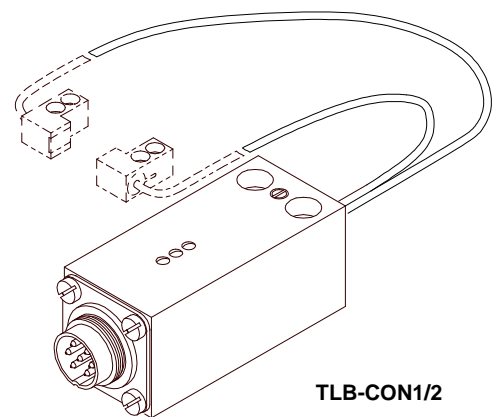
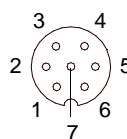
(All dimensions in mm)

Connector Assignment

Assignment 7-pin circular connector, type Binder 680:

Pin-No.:	(Color)	Assignment:
1	(blu)	Output ANALOG (0V...+10V)
2	(grn)	Output DIGITAL STATIC INV $\uparrow$
3	(gry)	Output DIGITAL DYNAMIC $\downarrow$ (15 ms)
4	(red)	Output DIGITAL DYNAMIC INV $\uparrow$ (15 ms)
5	(brn)	+Ub (+12VDC...+32VDC)
6	(wht)	GND (0V)
7	(yel)	Output DIGITAL STATIC $\downarrow$

Connecting cable: cab-las-agl7 (l=2m)



TLB-CON1/2

Setting

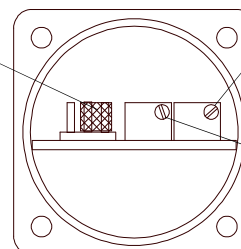
Procedure for the adjustment of potentiometer and jumper:

- Unscrew the 4 slotted screws
- Unscrew the 2 plastic screws (pull relief of the two cables)
- Carefully pull the electronic unit out of the aluminum housing
- Carry out settings of potentiometers and of jumper

Jumper for selection of threshold: static or dynamic

Jumper at the right: static (corresponds to: fix threshold = standard adjustment !)

Jumper at the left: dynamisch (corresp. to: corrected threshold)



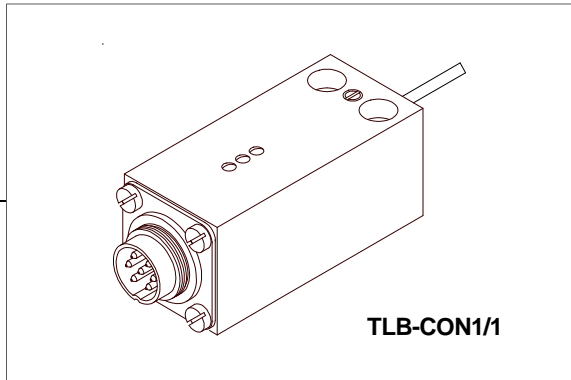
**Potentiometer for adjustment of gain**  
Increase of analog signal:  
Rotation counter-clockwise  
(10-step potentiometer)

**Potentiometer for adjustment of threshold**  
Increase of sensitivity:  
Rotation counter-clockwise  
(10-step potentiometer)

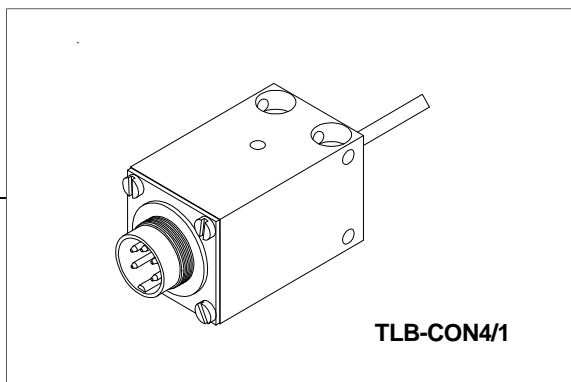
Product Line

Constant light amplifiers in tool plug housing:

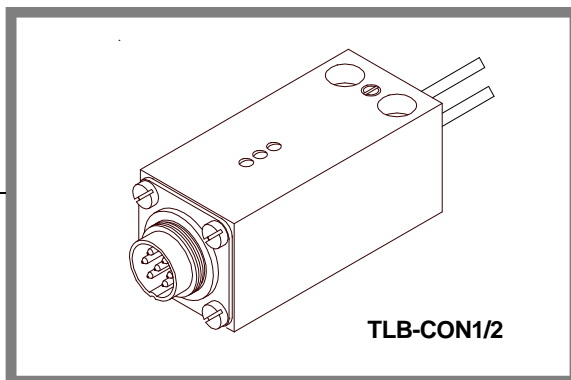
Connecting cable:  
cab-las-agl7 (2m)



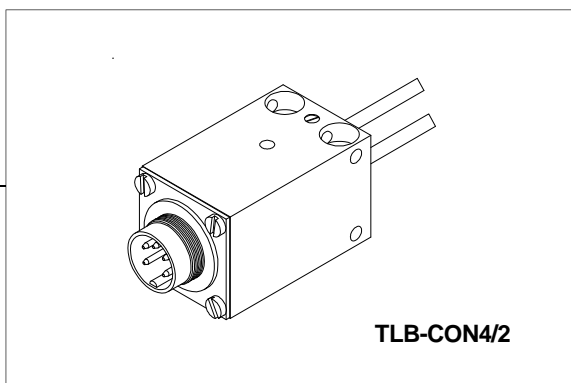
Connecting cable:  
cab-agl5 (2m)



Connecting cable:  
cab-las-agl7 (2m)

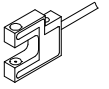


Connecting cable:  
cab-agl5 (2m)

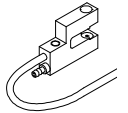


Fork light barriers:

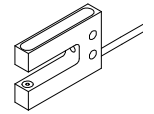
FKB-06-...



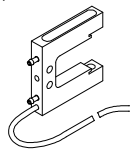
FKB-06-...-BL



FKB-08-...

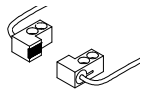


FKB-08-...-BL

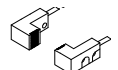


Split light barriers:

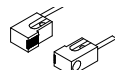
SLB-01



SLB-02



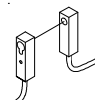
SLB-03



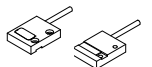
SLB-04



SLB-05



SLB-06



SLB-08

