TLB Series

TLB-CON1/1 Constant light amplifier

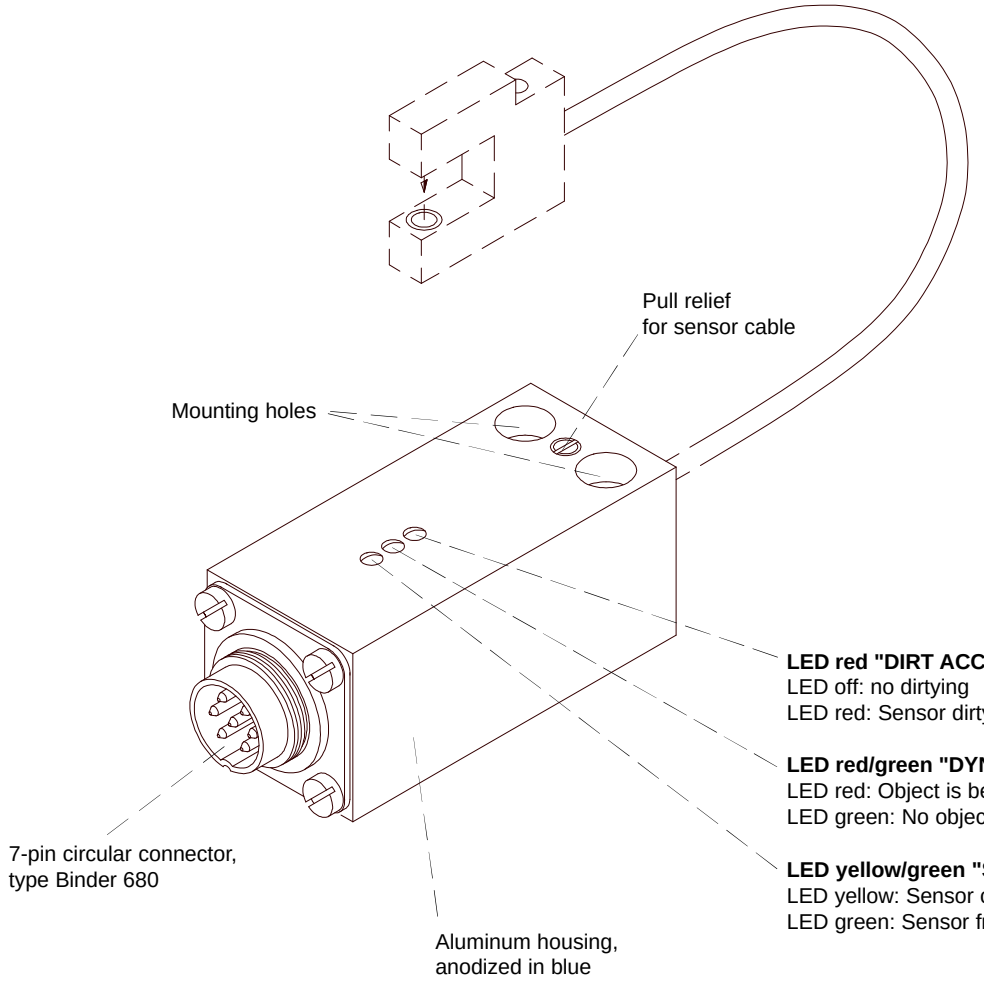
- Sensitivity and gain adjustable by means of two potentiometers (inside the housing)
- Switching state indication by means of a yellow/green LED
- Dynamic and static output, analog output
- Threshold correction can be activated
- High switching frequency (typ. 25 kHz)
- Dirt accumulation indication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

Design

Product name:

TLB-CON1/1

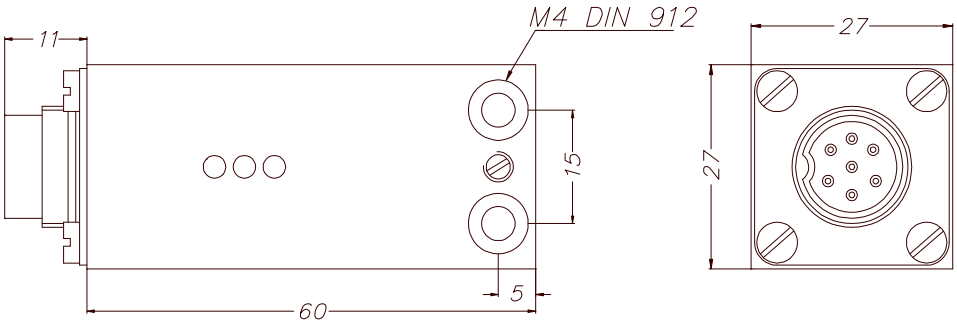
for use with fork light barriers of TLB Series (cf. page 4):
FKB-06-...
FKB-06-...-BL
FKB-08
FKB-08-...-BL



Technical Data

Model	TLB-CON1/1
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 normallly 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 normallly 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
Switcing 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 plug, 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... CE

Dimensions



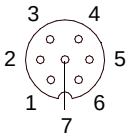
(All dimensions in mm)

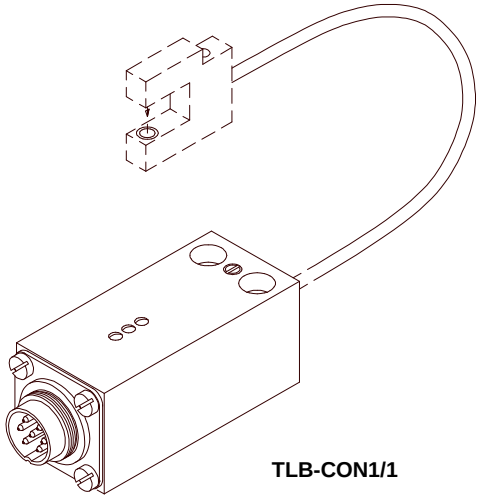
Connector Assignment

Assignment 7-pin circular connector, type Binder 680:

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

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





TLB-CON1/1

Setting

Procedure for the adjustment of potentiometer and jumper:

a) Unscrew the 4 slotted screws

b) Unscrew the 2 plastic screws (pull relief of the two cables)

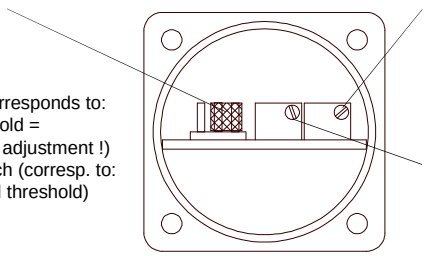
c) Carefully pull the electronic unit out of the aluminum housing

d) 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)



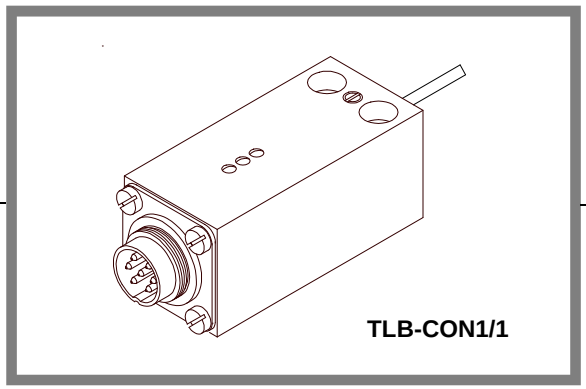
Potentiometer for adjustment of gain
Increase of analog signal:
Rotation counter-clockwise
(10-step potentiometer)

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

Product Line

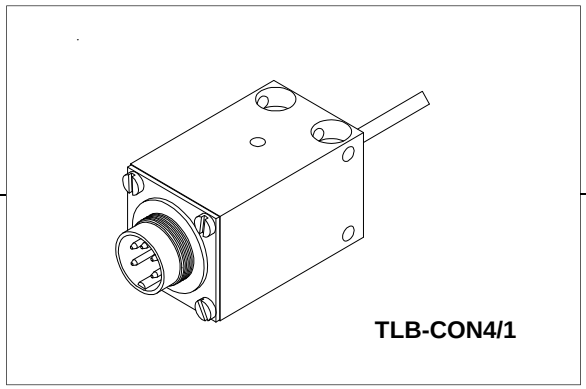
Constant light amplifiers in tool plug housing:

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



TLB-CON1/1

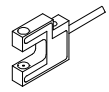
Connecting cable: cab-agl5 (2m)



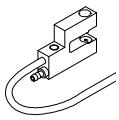
TLB-CON4/1

Fork light barriers:

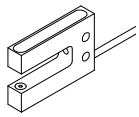
FKB-06-...



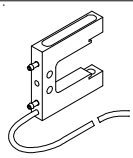
FKB-06-...-BL



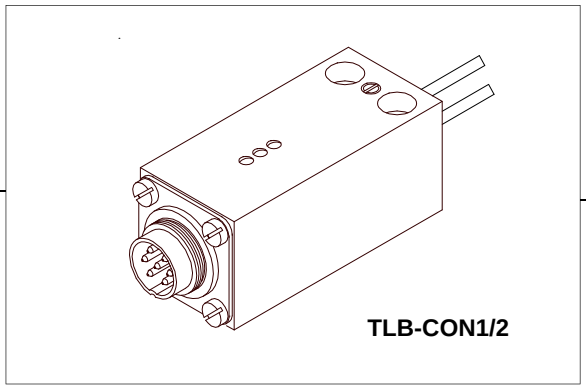
FKB-08-...



FKB-08-...-BL

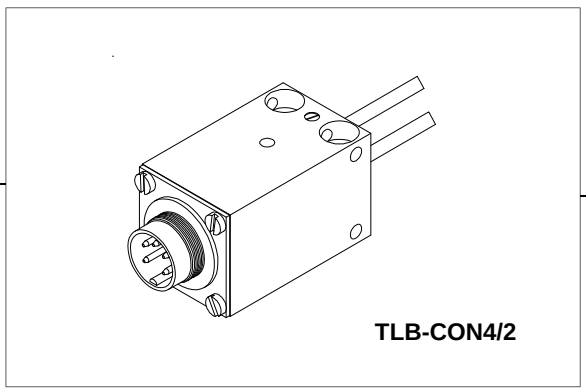


Connecting cable: cab-las-agl7 (2m)



TLB-CON1/2

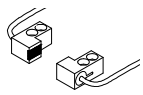
Connecting cable: cab-agl5 (2m)



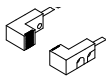
TLB-CON4/2

Split light barriers

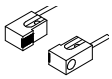
SLB-01



SLB-02

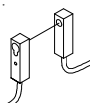


SLB-03



SLB-04

SLB-05



SLB-08