D-LAS Series

D-LAS1-DC-5,5x2,5(class2)-T
D-LAS1-DC-Qinv-5,5x2,5(class2)-R-HS



- Parallel aligned, visible red laser beam (P_0<1.0 mW, 670 nm), **laser class 2**
- Working range up to 25 m
- High switching frequency (300 kHz)
- Analog output 0V...+11V 300 kHz (-3 dB)
- Switching output Qinv (PNP, dark-switching)
- Optics cover made of glass
- Sturdy metal housing (brass, nickel-plated)
- Compact design (M18)
- Alignment aid by means of green LED
- Additional input with switching signal (on/off)

Design

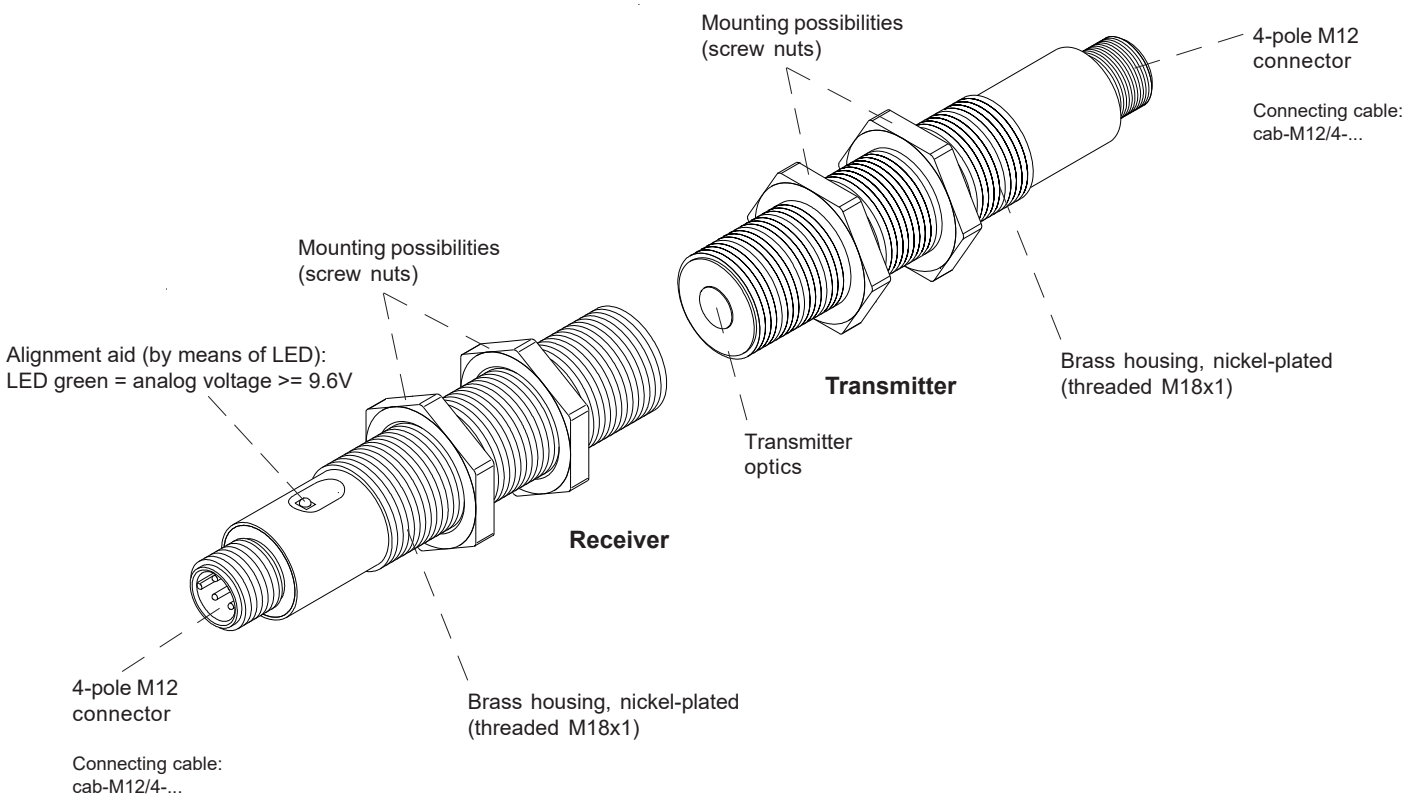
Product name:

D-LAS1-DC-5,5x2,5(class2)-T (Transmitter)
D-LAS1-DC-Qinv-5,5x2,5(class2)-R-HS (Receiver)

Qinv = Switching output: pnp dark-switching (pnp n.o.)
HS = High Speed (300 kHz)

Accessories: (p. 4)

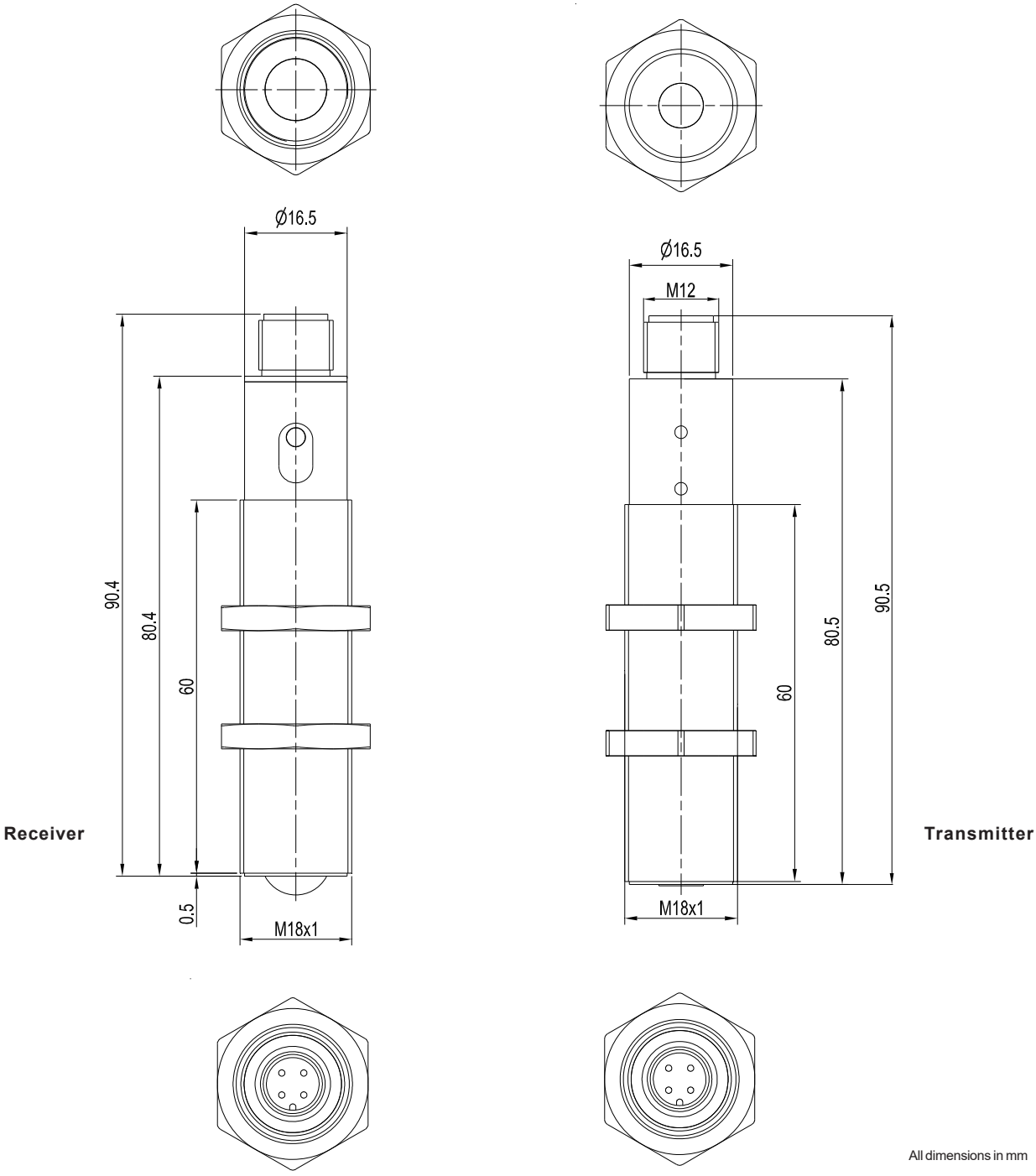
FL-18 (mounting flange)
WFL-18 (mounting flange angle type)



Technical Data

Type	**D-LAS1-DC-5,5x2,5(class2)-T (Transmitter)** **D-LAS1-DC-Qinv-5,5x2,5(class2)-R-HS (Receiver)**
Light source (laser)	Solid state laser, 670 nm, DC operation, <1mW opt. power, laser class 2 acc. to DIN EN 60825-1. The use of this laser transmitter requires no additional protective measures.
Max. range (working distance)	up to 25m
Size of laser beam	at 0m: 5.5mm x 2.5mm at 25m: Ø approx. 15mm
Optical filter	Interference filter
Voltage supply	+24VDC (± 10%), reverse-polarity protection, overload protection
Alternating current/ direct current supply	DC operation
Ambient light	up to 5000 Lux
Current consumption	Transmitter: typ. 30mA Receiver: typ. 40mA
Current control input I-CONTROL	0V...+5V: Laser power decreases linearily with increasing voltage +5V...+24V: Laser OFF
Monitor output	Analog output 0V...+11V (300kHz -3dB)
Enclosure rating	IP67
Operating temperature range	-20°C ... +50°C
Storage temperature range	-20°C ... +85°C
Housing material	Brass, nickel-plated
Housing dimensions	Transmitter: M18x1, length approx. 90.5 mm (incl. M12 connector) Receiver: M18x1, length approx. 90.4 mm (incl. M12 connector)
Type of connector	Transmitter respectively receiver: 4-pole M12 connector
Connecting cable	Each for transmitter and for receiver: cab-M12/4-g-... or cab-M12/4-w-...
Max. switching current	100 mA, short-circuit-proof
EMC test acc. to	DIN EN 60947-5-2 CE
Switching frequency	typ. 300kHz
Alignment aid (by means of LED)	Alignment aid by means of LED (at the receiver): LED lights up GREEN for analog voltage >= 9.6V
Additional input with switching signal (on/off)	Pin 4: Additional input with switching signal on/off: 0V = beam off +5V ... +24V = beam on

Dimensions



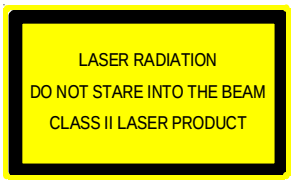
All dimensions in mm

Laser Warning

The laser transmitter of the D-LAS1-DC-5,5x2,5(class2)-T complies with laser class 2 according to EN 60825-1. No additional protective measures are required when using this transmitter.

The laser transmitter of the D-LAS1-DC-5,5x2,5(class2)-T is supplied with a laser warning label „CLASS II Laser Product“.

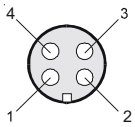




Connector Assignment

Transmitter
(4-pole M12 connector, shielded)

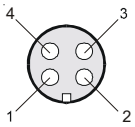
Pin No.:	Color:	Assignment:
1	brn	+24VDC (± 10%)
2	wht	I-CONTROL (0...+24V)
3	blu	GND (0V)
4	blk	Additional input with switching signal (on/off)



Connecting cable:
cab-M12/4-...

Receiver - Type Qinv (pnp dark-switching):
(4-pole M12 connector, shielded)

Pin No.:	Color:	Assignment:
1	brn	+24VDC (± 10%)
2	wht	ANALOG (0V...+11V)
3	blu	GND (0V)
4	blk	OUTPUT INV

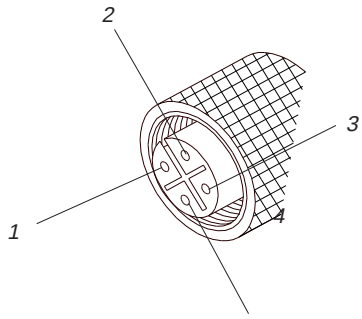


Connecting cable:
cab-M12/4-...

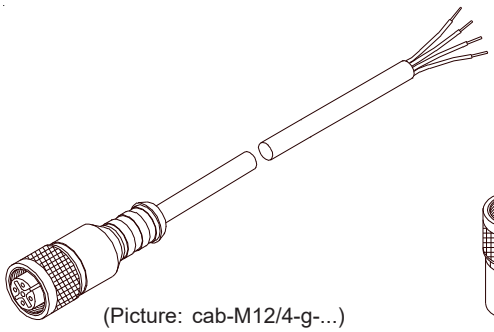
Connecting Cables

Available connecting cables:

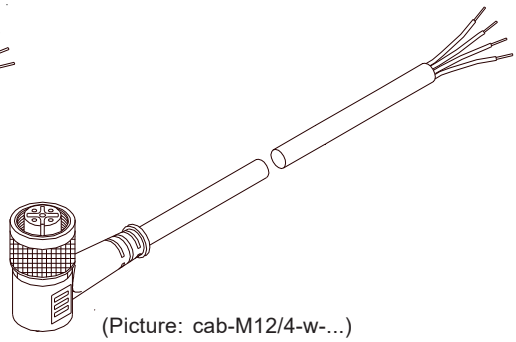
cab-M12/4-g-2m	Length: 2m	Outer jacket: PUR	
cab-M12/4-g-5m	Length: 5m	Outer jacket: PUR	
cab-M12/4-w-2m	Length: 2m	Outer jacket: PUR	angle type 90°
cab-M12/4-w-5m	Length: 5m	Outer jacket: PUR	angle type 90°



(4-pole M12
fem. connector)



(Picture: cab-M12/4-g-...)



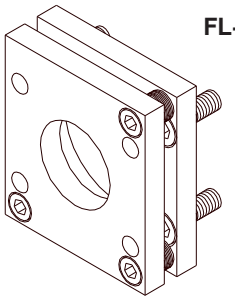
(Picture: cab-M12/4-w-...)

Accessories

Mounting flanges:
(please order separately, cf. separate data sheets):

FL-18 (flange)
WFL-18 (angle flange, 90°)

FL-18



WFL-18

