

D-LAS Series

► D-LAS90

- Optics cover made of glass
- Various apertures available
- Max. range typ. 100 m (depends on aperture used)
- Min. detectable object typ. 0.1 mm
- Interference filter
- Switching frequency 1 kHz
- Sturdy metal housing
- Laser class 2 product



Design

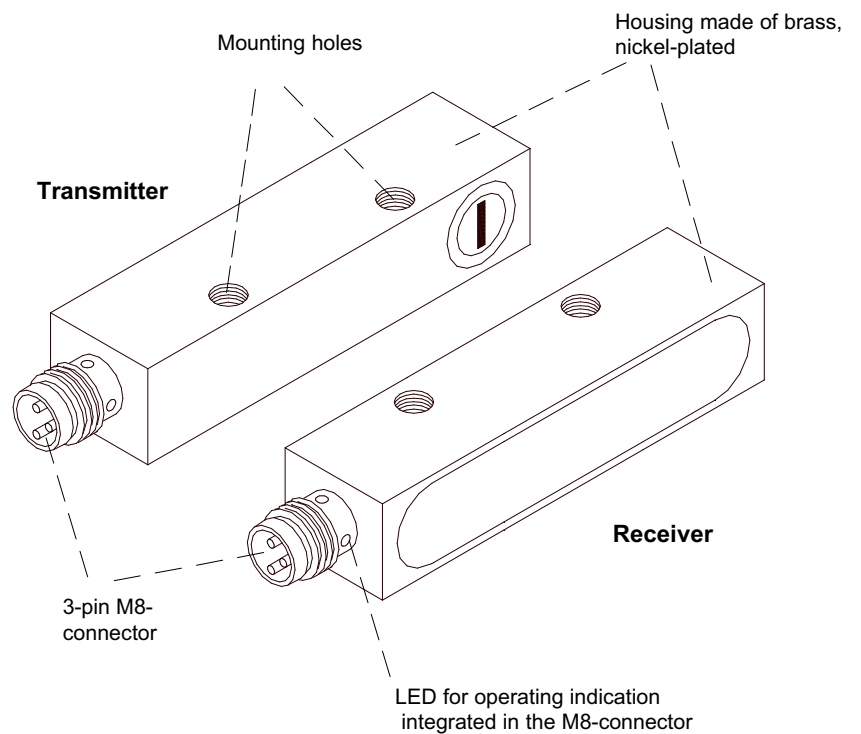
Product name:

Transmitter: D-LAS90-(aperture)*-T

**Receiver: D-LAS90-Q-(aperture)*-R
D-LAS90-Qinv-(aperture)*-R**

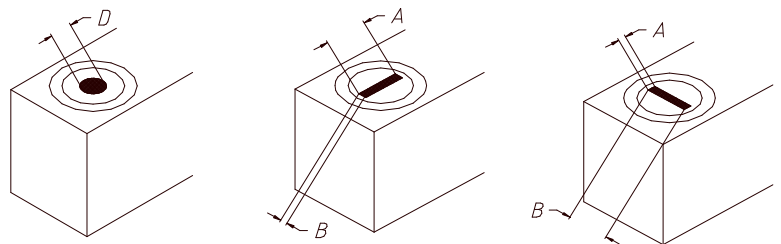
Q = Switching output:
nnp dark-switching (nnp n.o.)/
pnp bright-switching (pnp n.c.)

Qinv = Switching output:
pnp dark-switching (pnp n.o.)/
nnp bright-switching (nnp n.c.)




***Available apertures**

Round apertures (Ø in mm):	Rectangular apertures (AxB in mm):	
d0.3	0.3 x 1	(1 x 0.3)
d0.5	0.3 x 1.5	(1.5 x 0.3)
d0.7	0.3 x 3	(3 x 0.3)
d1.0	0.5 x 1	(1 x 0.5)
d2.0	0.5 x 4	(4 x 0.5)
	0.75 x 2	(2 x 0.75)
	0.75 x 3	(3 x 0.75)





Technical Data

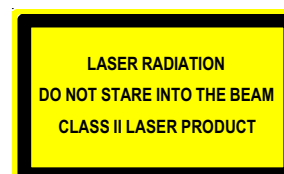
Model	D-LAS90
Laser	Solid state laser, 670 nm, AC-operation, 1 mW max. opt. power, laser class 2 acc. to DIN EN 60825. The use of these laser transmitters therefore requires no additional protective measures.
Max. range	100 m (depends on the aperture used)
Min. detectable object	typ. 1% of aperture size
Reproducibility	typ. 1% of aperture size
Optical filter	Interference filter
Voltage supply	+12VDC ... +32VDC, protected against polarity reversal, overload protected
Pulsating light or continuous light operation	AC-operation, 100 kHz
Ambient light	up to 5000 Lux (depends on the aperture used)
Current consumption	Transmitter: typ. 60 mA Receiver: typ. 30 mA
Max. size of aperture	Round aperture: max. Ø 2.0 mm, rectangular aperture: max. 4 mm x 0.5 mm
Current control input ICONTROL	0V ... +5V: Laser power decreases linearly with increasing voltage +5V ... +24V: Laser OFF
Type of protection	IP67
Operating temperature range	-20°C ... +50°C
Storage temperature range	-20°C ... +85°C
Housing material	Brass, nickel-plated
Housing dimensions	Transmitter respectively receiver: approx. 55 mm x 14 mm x 12 mm
Connector type	M8, 3-pin
Max. switching current	100 mA, short-circuit-proof
EMC test acc. to	IEC - 801... 
Switching frequency	typ. 1 kHz



Laser Warning

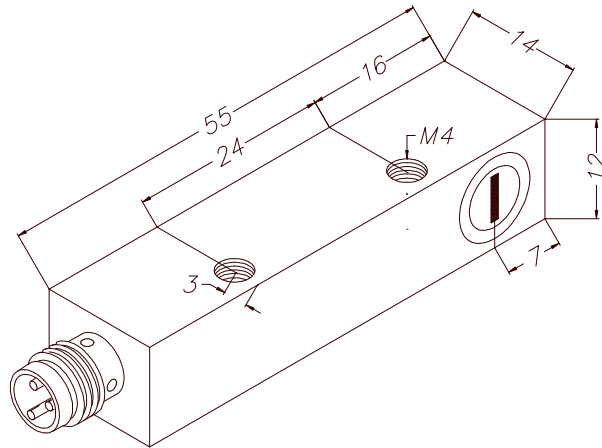
The transmitters of the laser one-way light barriers of D-LAS Series comply with laser class 2 according to EN 60825. The use of these laser transmitters therefore requires no additional protective measures.

The transmitters of the D-LAS Series are supplied with a laser warning label.



Dimensions

D-LAS90 transmitter
D-LAS90 receiver



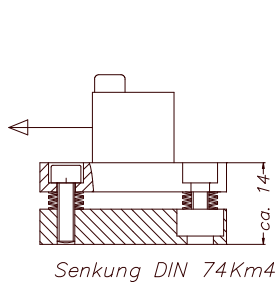
(All dimensions in mm)

Mounting

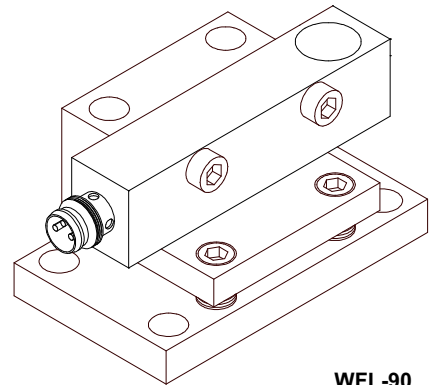
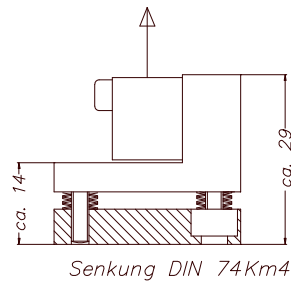
Mounting accessories:
(please order separately)

Mounting flange FL-90
Mounting flange WFL-90

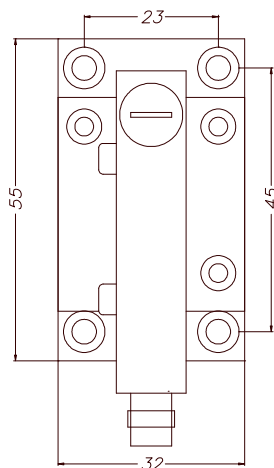
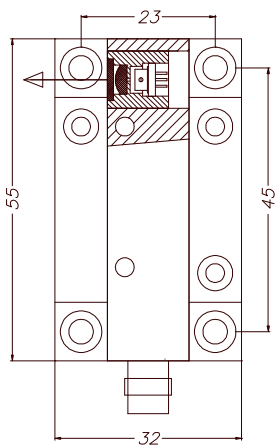
FL-90



WFL-90



WFL-90



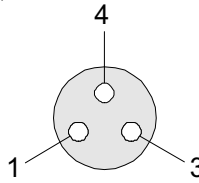
(All dimensions in mm)

Connector Assignment

Receiver
(3-pin M8-connector)

Type Q (npn dark-switching / pnp bright-switching):

Pin No.:	Color:	Assignment:
1	brn	+12VDC...+32VDC
3	blu	GND (0V)
4	blk	OUTPUT



Transmitter
(3-pin M8-connector)

Pin No.:	Color:	Assignment:
1	brn	+12VDC...+32VDC
3	blu	GND (0V)
4	blk	I-CONTROL (0...+24V)

Type Qinv (pnp dark-switching / npn bright-switching):

Pin No.:	Color:	Assignment:
1	brn	+12VDC...+32VDC
3	blu	GND (0V)
4	blk	OUTPUT INV

Connecting Cables

Available connecting cables:

cab-M8/3-g-2	Length: 2m	Outer jacket: PUR	
cab-M8/3-g-5	Length: 5m	Outer jacket: PUR	
cab-M8/3-w-2	Length: 2m	Outer jacket: PUR	angle type
cab-M8/3-w-5	Length: 5m	Outer jacket: PUR	angle type
cab-M8/3-w-npn-2	Length: 2m	Outer jacket: PUR	angle type, LED
cab-M8/3-w-npn-5	Length: 5m	Outer jacket: PUR	angle type, LED
cab-M8/3-w-pnp-2	Length: 2m	Outer jacket: PUR	angle type, LED
cab-M8/3-w-pnp-5	Length: 5m	Outer jacket: PUR	angle type, LED

