

D-LAS Series

► D-LAS90-VACU

- Suitable for use in the vacuum (HV, UHV)
- Parallel laser light with homogeneous light distribution in round or rectangular cross-section detects smallest objects
- Enables precise positioning
- Visible laser beam
- Class 2 laser product
- Housing made of special steel



Design

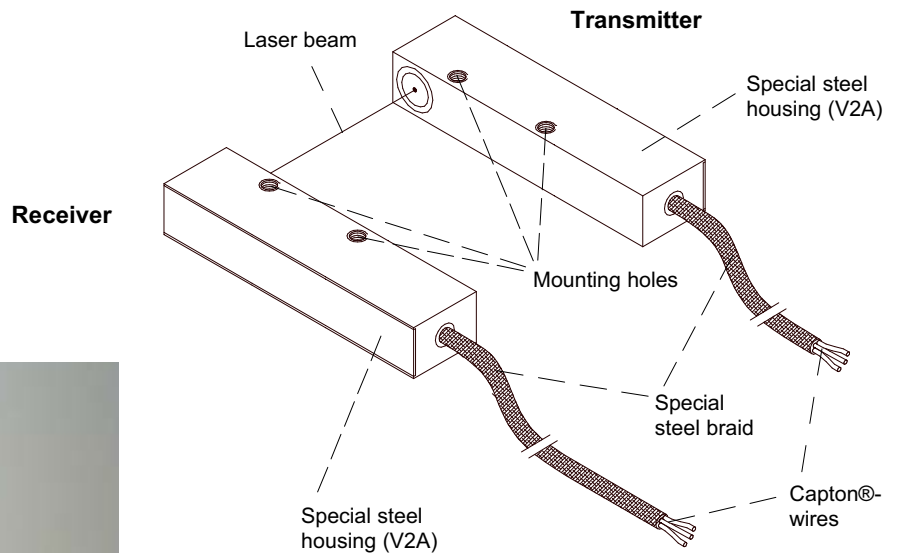
Product name:

Transmitter: D-LAS90-VACU-(aperture)*-T-1m (cable length 1m)
 D-LAS90-VACU-(aperture)*-T-2m (cable length 2m)

Receiver: D-LAS90-VACU-(aperture)*-R-1m (cable length 1m)
 D-LAS90-VACU-(aperture)*-R-2m (cable length 2m)

*Available apertures

d0.3 (circular aperture Ø 0.3 mm)
 d0.5 (circular aperture Ø 0.5 mm)



D-LAS90-VACU-R with special steel shield and Capton®-wires



Technical Data

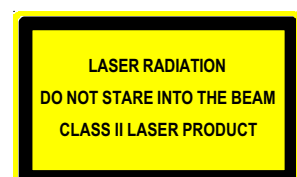
Model	D-LAS90-VACU
Laser	Solid state laser, 670nm, AC-operation, 1mW max. optical output, Laser class 2 acc. to DIN EN60825. The use of this laser transmitter therefore requires no additional protective measures.
Max. range	500 mm with aperture d0.3 1000 mm with aperture d0.5
Min. detectable object	0.1mm with aperture d0.3 0.3mm with aperture d0.5
Reproducibility	20µm with aperture d0.3 40µm with aperture d0.5
Optical filter	Interference filter
Voltage supply	+12VDC...+32VDC, protected against polarity reversal, overload protected
Feed cable	3x Capton®-cable, special steel braid
Pulsating light operation	100kHz
Ambient light	up to 5000 Lux
Max. switching current	100mA, short-circuit-proof
Type of protection	IP67
Operating temperature range	-20°C ... +50°C
Storage temperature range	-20°C ... +85°C
Housing material	Special steel (V2A)
Vacuum suitability	tested up to 1×10^{-7} mbar
Aperture size	d0.3 = 0.3 mm in diameter d0.5 = 0.5 mm in diameter
Current control input	0V...+5V: Laser power decreases linearly with increase of voltage
I-Control	+5V...+24V: Laser OFF
Switching frequency	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.

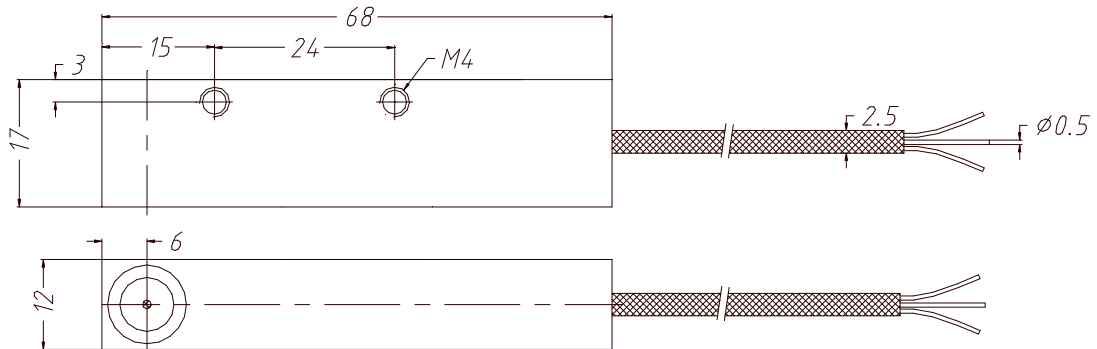
The transmitters of the D-LAS Series are supplied with a laser warning label.



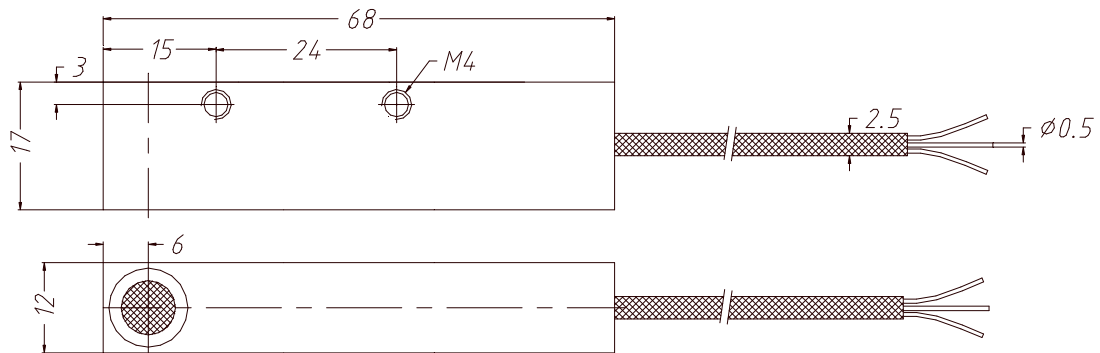
Dimensions

D-LAS90-VACU-T (transmitter):

(All dimensions in mm)



D-LAS90-VACU-R (receiver):



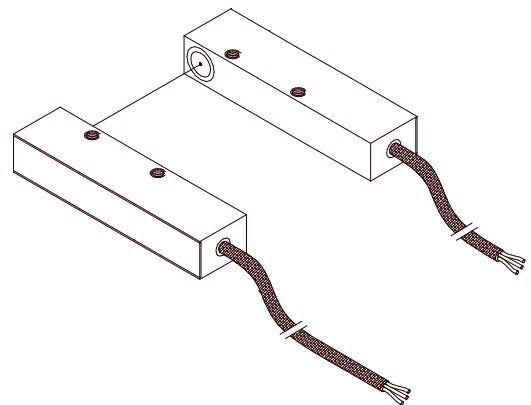
Connector Assignment

D-LAS90-VACU-T (transmitter): 3x Capton® cable:

short: +UB
 medium: GND (0V)
 long: I-CONTROL

D-LAS90-VACU-R (receiver): 3x Capton® cable:

short: +UB
 medium: GND (0V)
 long: OUTPUTQ_{inv}
 npn bright-switching (nnp n.c.)/
 pnp dark-switching (pnp n.o.)





Notes