

A-LAS Series

▶ A-LAS-M18-...-C

- Analog signal (0...+10V) in connection with an electronic control unit type AGL4, AGL4-HS, AGL-DIF, SI-CON11 (without PC connection) or SI-CON8, SI-CON34, A-LAS-CON1 (with PC connection and software)
 (stand-alone operation of the light barrier is not possible)
- Parallel aligned, visible red laser beam (<0.39 mW, 670 nm), **laser class 1**
- Various apertures available
- Measuring range up to 7 mm (depends on aperture used)
- Working range max. 10 m (depends on aperture and cable length)
- Insensitive to outside light due to interference filter
- Compact design, sturdy metal housing, IP67



Design

Product name:

A-LAS-M18-(aperture)*-C-(cable length)**

A-LAS-M18-(aperture)*-M-C-(cable length)****

(consists of transmitter and receiver incl. cable with 7-pole connector 712)

Accessories: (cf. page 4)

ABL-M18-3 (Blast air top-part)

ABL-M18-5 (Blast air top-part)

ABL-M18-10 (Blast air top-part)

*Available apertures

Rectangular apertures AxB (mm):

0.3x1	(= 1x0.3)
0.3x1.5	(= 1.5x0.3)
0.3x3	(= 3x0.3)
0.5x1	(= 1x0.5)
0.5x2	(= 2x0.5)
0.5x3	(= 3x0.5)
0.5x4	(= 4x0.5)
0.5x6.5	(= 6.5x0.5)
0.75x2	(= 2x0.75)
0.75x3	(= 3x0.75)
0.8x6	(= 6x0.8)
0.8x6.5	(= 6.5x0.8)
1x2	(= 2x1)
1x3	(= 3x1)
1x4	(= 4x1)
2x1.2	(= 1.2x2)
2x3	(= 3x2)
7x3	(= no aperture)

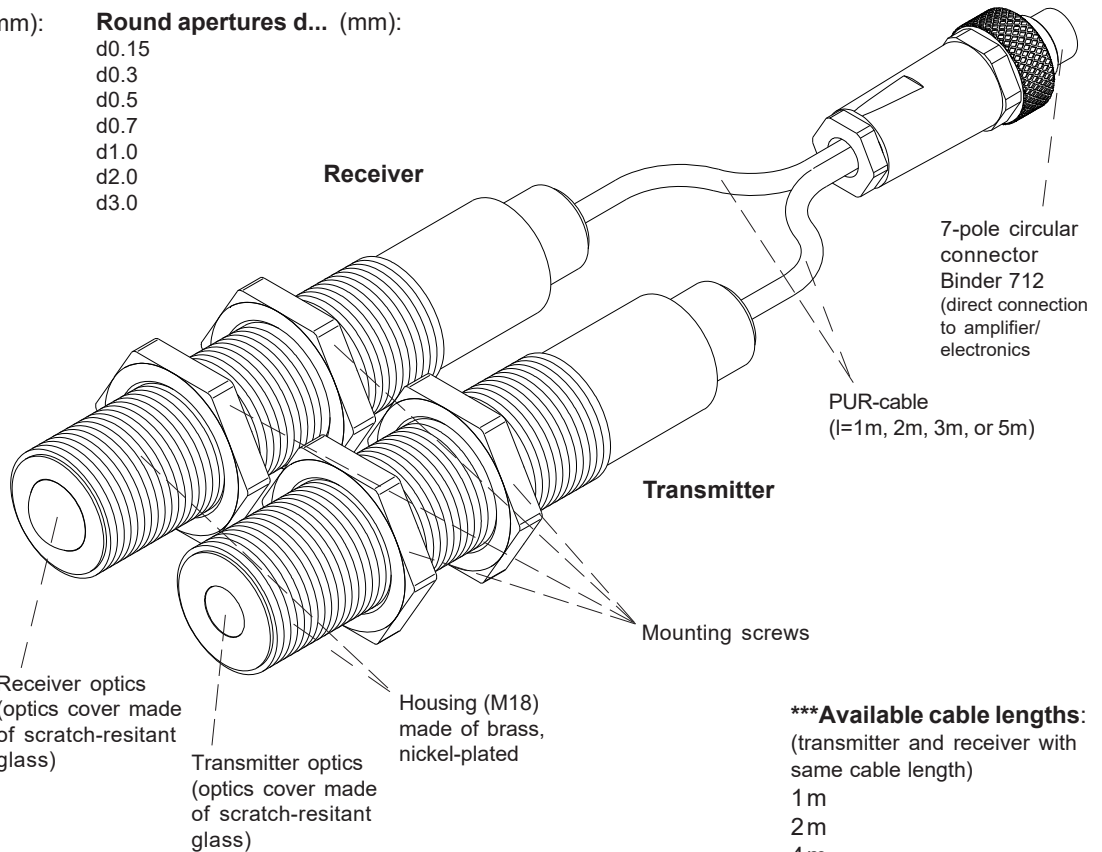
Round apertures d... (mm):

d0.15
d0.3
d0.5
d0.7
d1.0
d2.0
d3.0

***Aperture sizes for M type:

9.5x1.5	(= 1.5x9.5)
9.5x2	(= 2x0.5)
10x0.3	(= 0.3x10)
16x0.5	(= 0.5x16)
16x1	(= 1x16)

For M-transmitter no blast-air top-part ABL-M18-... is available!



*** Available cable lengths:


(transmitter and receiver with same cable length)

- 1m
- 2m
- 4m
- 5m





Technical Data

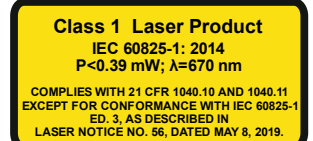
Type	A-LAS-M18-...-C
Shape	Laser light barrier in M18 housing. Various round and rectangular apertures are available.
Laser	Solid-state laser, 670 nm, DC-operation, 0.39 mW max. opt. power, laser class 1 acc. to DIN EN 60825-1. The use of these laser transmitter therefore requires no additional protective measures.
Available aperture sizes	Round apertures: Ø 0.15 mm to Ø 3 mm Rectangular apertures: 0.2 mm x 0.5 mm to 7 mm x 3 mm (7x3 = without aperture) With M-type: Rectangular apertures: 9.5 mm x 1.5 mm to 16 mm x 1 mm
Measuring range	Up to 7 mm (depends on the aperture used)
Working range	Max. 10 m (depends on the aperture used and on cable length)
Min. detectable object	Typ. 1% of aperture size
Reproducibility	Typ. 1% of aperture size, with threshold correction (via electronic control unit): typ. 0.1% of aperture size
Threshold correction	Can be activated via a software-controlled electronics of type A-LAS-CON1, SI-CON8, or SI-CON34
Optical filters	Red light filter RG 630 and interference filter
Voltage supply	Transmitter: +5VDC, receiver: +5VDC
Ambient light (outside light)	With 5000 Lux ambient light around optical receiver unit typ. < 300mV influence on analog signal (0...+10V)
Analog output	0 ... +10V (in connection with any electronic control unit of A-LAS Series)
Band width analog signal	100 kHz (-3 dB)
Current control input (I-CONTROL)	0V ... 5V, laser power decreases linear to increase of voltage: 0V: full power, 5V: laser off
Sensitivity setting (switching threshold)	Via software (with control electronics A-LAS-CON1, SI-CON34, or SI-CON8) or via potentiometer (with control electronics AGL4 or AGL4-HS)
Gain (analog signal)	Via software (with control electronics A-LAS-CON1, SI-CON34, or SI-CON8) or via potentiometer (with control electronics AGL4, AGL4-HS, AGL-DIF, or SI-CON11)
Current consumption	Transmitter: typ. 50 mA, receiver typ. 20 mA
Operating temperature range	0°C ... +50°C
Storage temperature range	-20°C ... +85°C
Type of connector	7-pole circular connector type Binder 712
Cable length	1m, 2m, 3m, or 5m
Housing material	Brass, nickel-plated
Housing dimensions	Transmitter and receiver: each LxØ approx. 90.5 mm x M18x1
Enclosure rating	IP67
EMC test acc. to	DIN EN 60947-5-2 



Laser Information

The laser transmitters of A-LAS series comply with laser class 1 according to EN 60825-1. Under reasonably foreseeable conditions a class 1 laser is safe. The reasonably foreseeable conditions are kept during specified normal operation. The use of these laser transmitters therefore requires no additional protective measures.

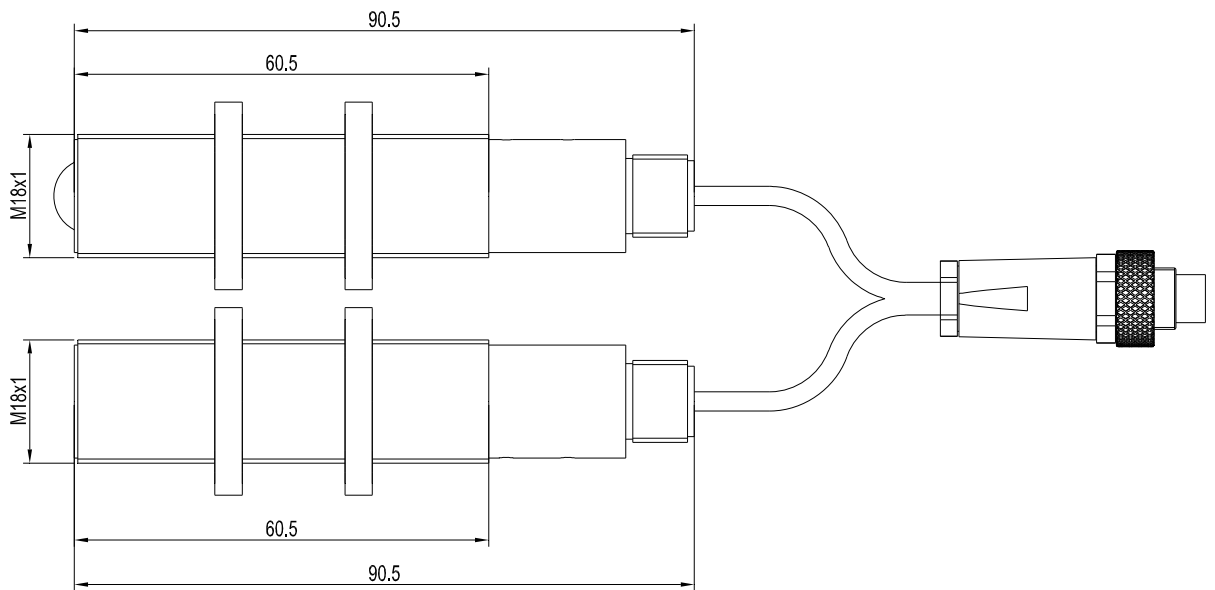
The laser transmitters of A-LAS series series are supplied with an information label „CLASS 1 Laser Product“.





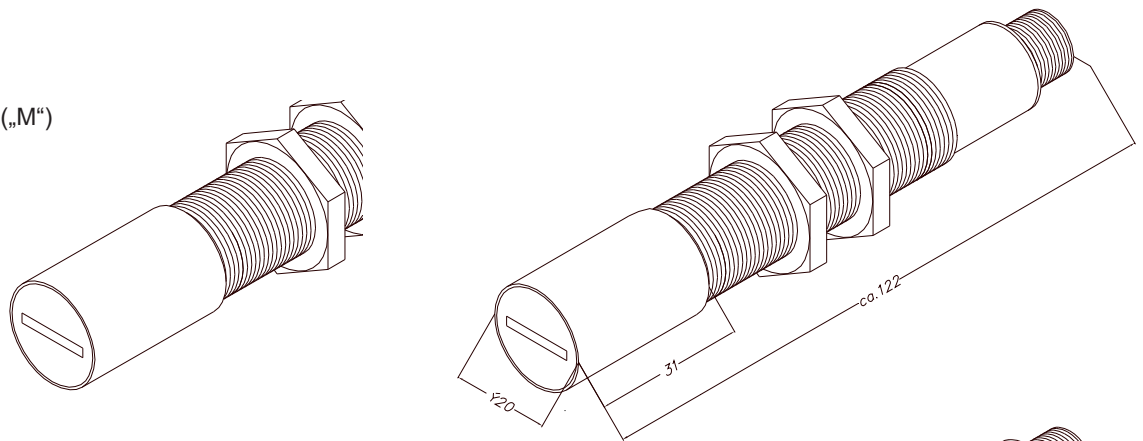
Dimensions

A-LAS-M18 receiver (picture above)
 A-LAS-M18 transmitter (picture below)

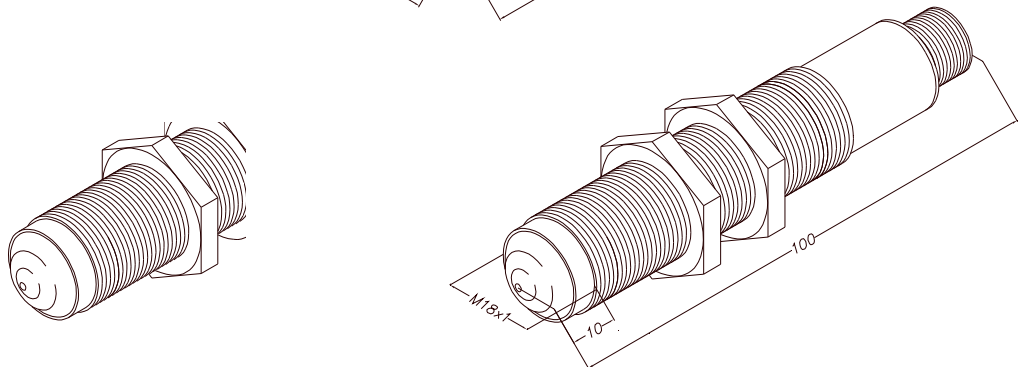


M-types:

A-LAS-M18 transmitter
 with big transmitter optics („M“)



A-LAS-M18 receiver
 with big receiver optics („M“)



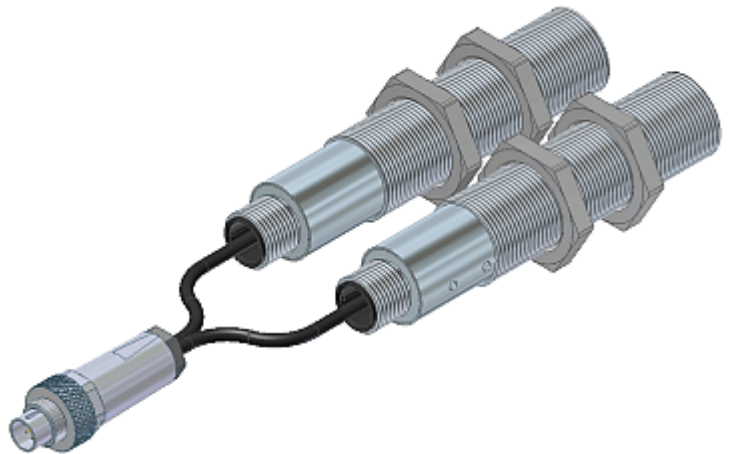
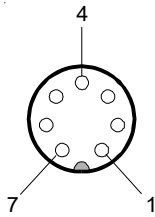
All dimensions in mm



Connector Assignment

Connection to electronic control unit via 7-pole circular connector Binder Series 712:

Pin-No.:	Assignment:
1	0V (GND)
2	+5V
3	I-CONTROL (0V...+5V)
4	+5V
5	ANALOG
6	n.c.
7	0V (GND)



Connection directly to an electronic control unit from A-LAS Series: AGL4, AGL4-HS, AGL-DIF, SI-CON11, SI-CON8, SI-CON34, A-LAS-CON1

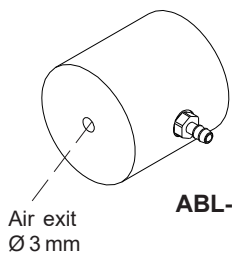


Accessories

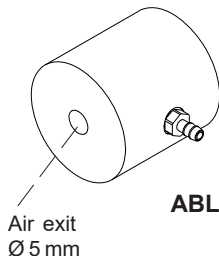
Blast-air top-parts for A-LAS-M18-...-C not suitable for transmitter with big transmitter optics (M-type)!

(please order blast-air top-parts separately for each transmitter and receiver frontend):

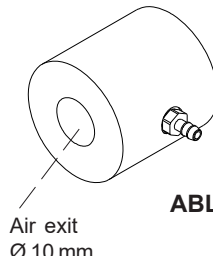
- ABL-M18-3** (air exit opening Ø 3 mm)
- ABL-M18-5** (air exit opening Ø 5 mm)
- ABL-M18-10** (air exit opening Ø 10 mm)



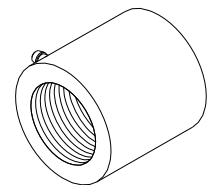
ABL-M18-3



ABL-M18-5



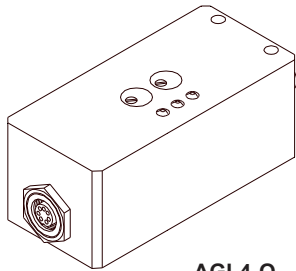
ABL-M18-10



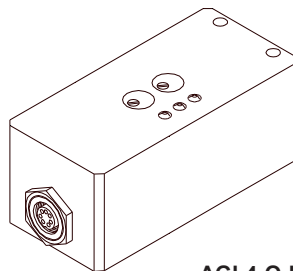


Electronic Control Units

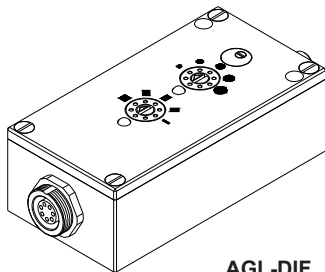
Suitable electronic control units for A-LAS-...-C:



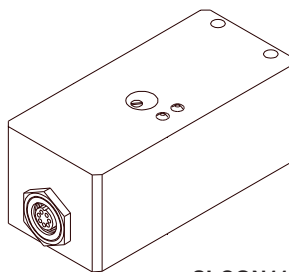
AGL4-Q
AGL4-Qinv
AGL4-Qinv-200ms



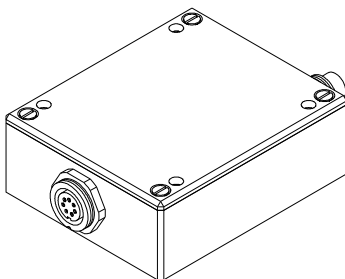
AGL4-Q-HS-500kHz-24V_LED
AGL4-Qinv-HS-500kHz-24V_LED



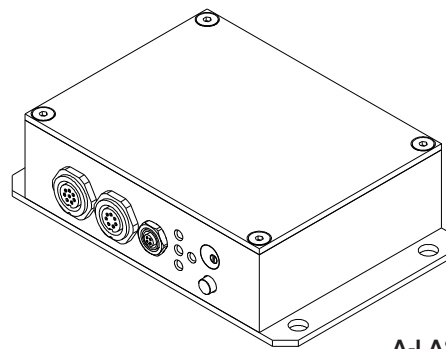
AGL-DIF



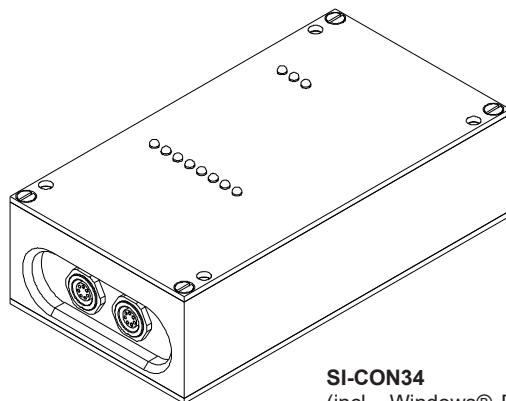
SI-CON11-0/20
SI-CON11-0/20-5V
SI-CON11-0/20-IC
SI-CON11-4/20
SI-CON11-4/20-IC
SI-CON11-5/25
SI-CON11-5/25-IC



SI-CON8
(incl. Windows® PC software
SI-CON8-Scope)



A-LAS-CON1
(incl. Windows® PC software
A-LAS-CON1-Scope)



SI-CON34
(incl. Windows® PC software
SCOPE34)