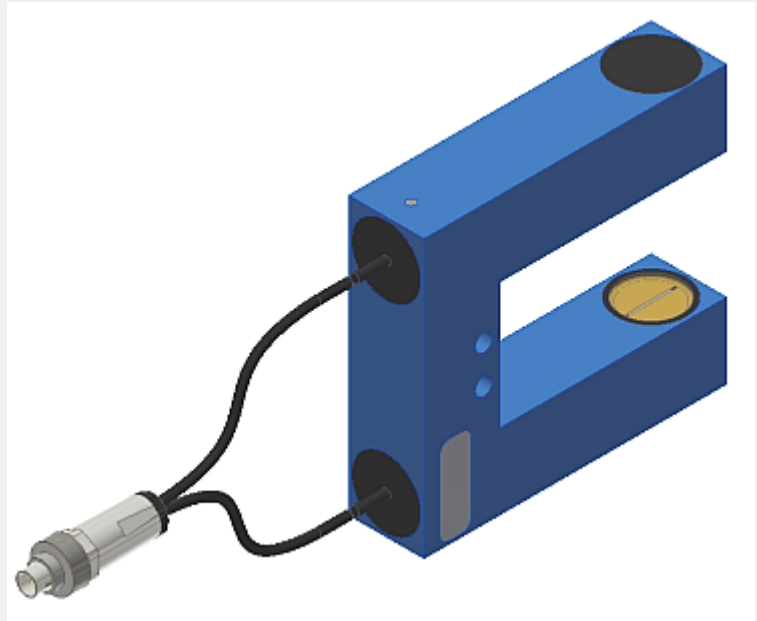


A-LAS Series

▶ A-LAS-F24-...-C

- Analog signal (0...+10V) in connection with an electronic control unit type AGL3, 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 and fork sizes available
- Measuring range up to 16 mm (depends on aperture used)
- Working range = fork width
- Insensitive to outside light due to interference filter
- Compact design, sturdy metal housing, IP67



Design

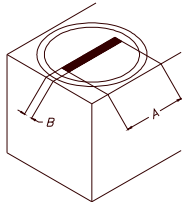
Product name:

A-LAS-F24-(aperture)*-(fork size)-C-1m**

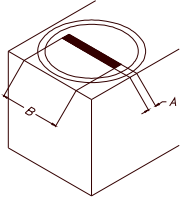
***Available aperturesizes:**
(same aperture sizes for transmitter and receiver)

Rectangular apertures
AxB (mm):

- 5x0.3
- 9.5x0.2
- 9.5x1.5
- 10x0.3
- 16x0.5
- 16x1
- 16x2



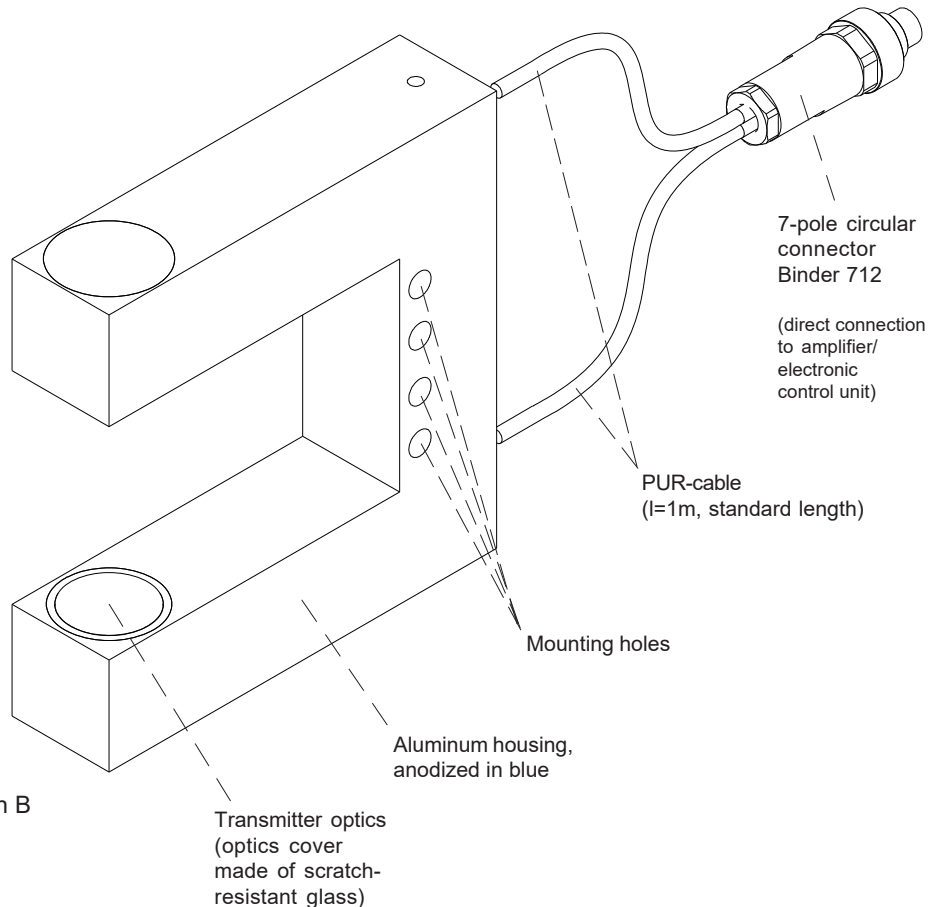
- 0.2x9.5
- 0.3x5
- 0.3x10
- 0.5x16
- 1x16
- 1.5x9.5
- 2x16



****Available fork sizes:**


Fork size A/B	Fork width A	Fork depth B
20/60	20 mm	60 mm
30/60	30 mm	60 mm
40/60	40 mm	60 mm
50/60	50 mm	60 mm
100/60	100 mm	60 mm
100/80	100 mm	80 mm
100/100	100 mm	100 mm

Fork width (distance between transmitter and receiver optics)
Fork depth (inner length of fork leg to center of aperture)





Technical Data

Type	A-LAS-F24-...-C
Shape	Laser light barrier in fork shape with 24 mm thick housing. Various round or rectangular apertures are available.
Laser	Solid-state laser, 670 nm, DC-operation, 0.4 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	Standard apertures (mm) for transmitter: 16x2, 16x1, 16x0.5, 10x0.3, 9.5x1.5, 9.5x0.2, 5x0.3 (recommended combination for transmitter and receiver: cf. page 1)
Measuring range	Up to 16 mm (depends on the aperture used)
Working range	Working range = fork width
Min. detectable object	Typ. 0.5% of aperture size
Reproducibility	Typ. 0.5% 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) (depends on the aperture used)
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	8-pole circular connector Binder Series 712
Cable length	1m (standard)
Housing material	Aluminum, anodized in blue
Housing dimensions	cf. page 3
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“.



Class 1 Laser Product
IEC 60825-1: 2014
P<0.39 mW; λ=670 nm
COMPLIES WITH 21 CFR 1040.10 AND 1040.11
EXCEPT FOR CONFORMANCE WITH IEC 60825-1
ED. 3, AS DESCRIBED IN
LASER NOTICE NO. 56, DATED MAY 8, 2019.

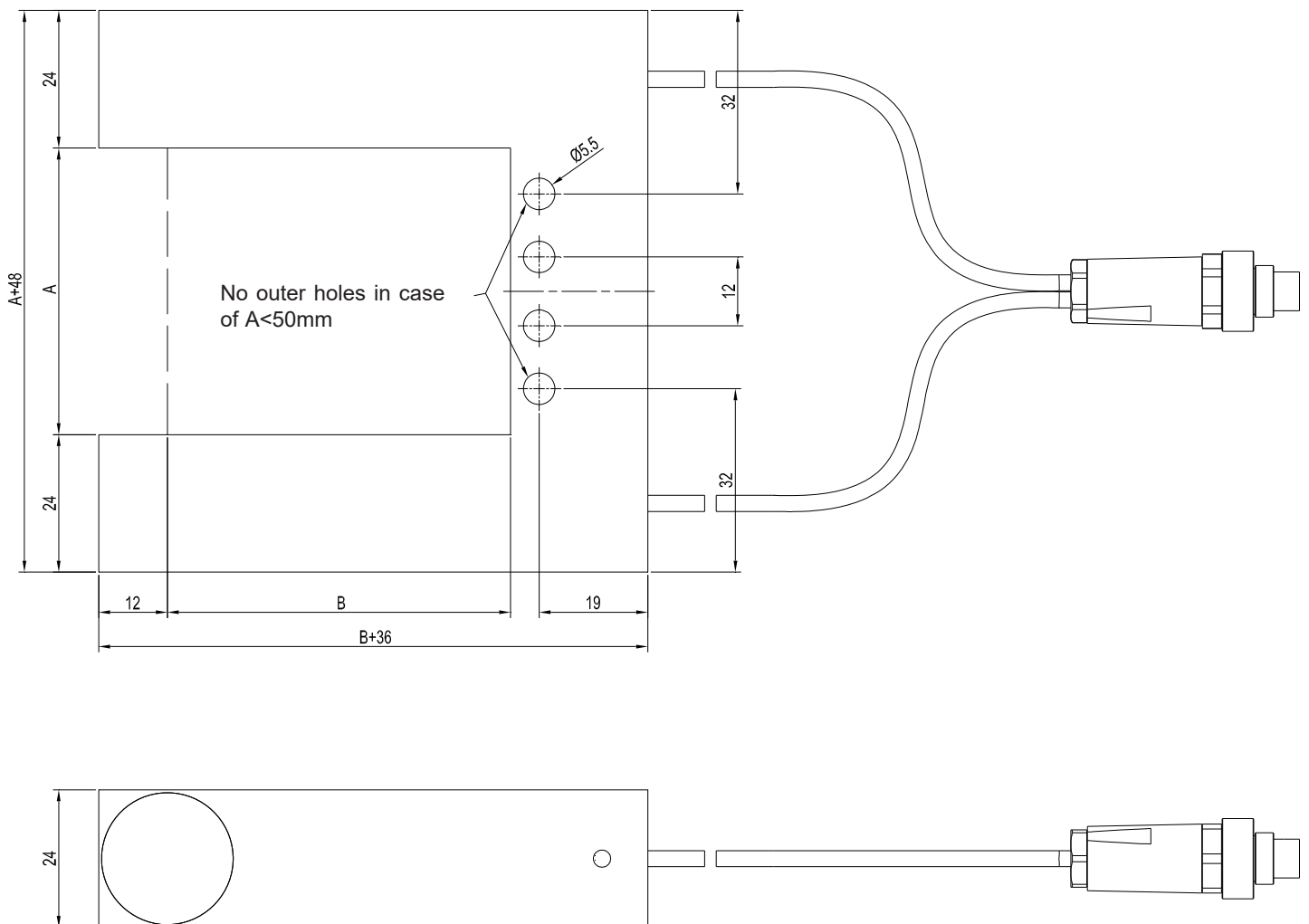


Dimensions

A-LAS-F24-...(fork size)-C-1m:

Fork size	Fork width A	Fork depth B
20/60	20 mm	60 mm
30/60	30 mm	60 mm
40/60	40 mm	60 mm
50/60	50 mm	60 mm
100/60	100 mm	60 mm
100/80	100 mm	80 mm
100/100	100 mm	100 mm

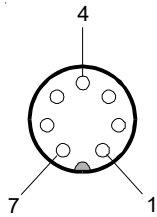
A= Fork width (distance transmitter to receiver optics)
 B= Fork depth (inner length of fork leg to center of aperture)



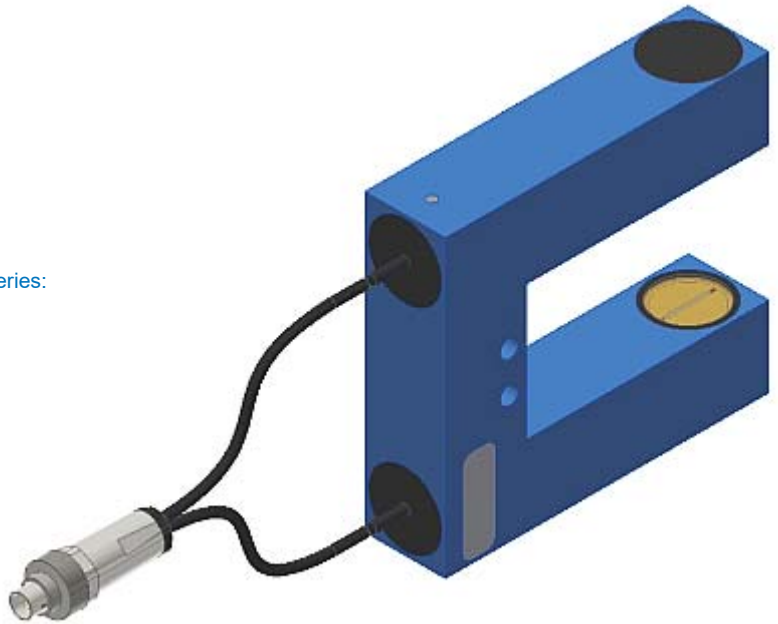
All dimensions in mm

**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)



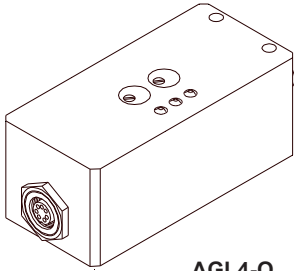
Connection directly to an electronic control unit from A-LAS Series:
AGL4, AGL4-HS, AGL-DIF, SI-CON11, SI-CON8, SI-CON34,
A-LAS-CON1



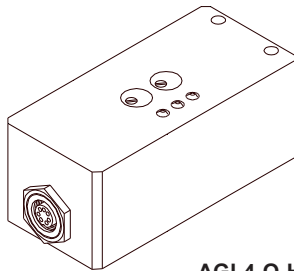


Electronic Control Units

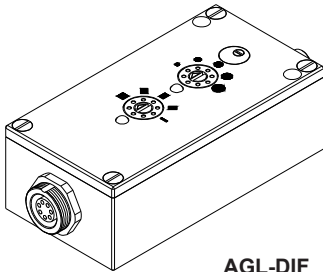
Suitable electronic control units for A-LAS-...-C:



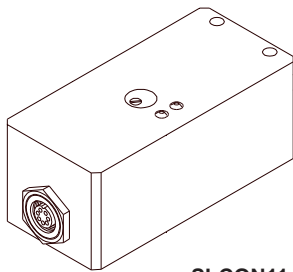
AGL4-Q
AGL4-Qinv
AGL4-Qinv-200ms



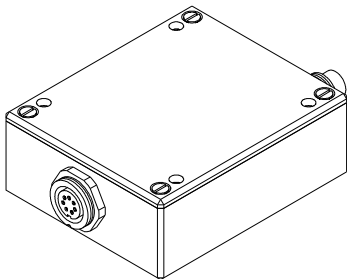
AGL4-Q-HS-500kHz-24V_LED
AGL4-Qinv-HS-500kHz-24V_LED



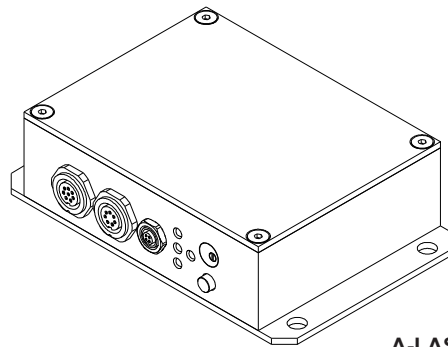
AGL-DIF



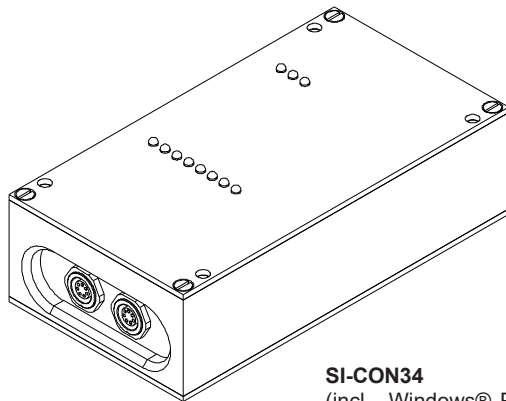
SI-CON11-0/20
SI-CON11-0/20-5V
SI-CON11-0/20-IC
SI-CON11-4/20
SI-CON11-4/20-IC
SI-CON11-5/25
SI-CON11-5/25-IC



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)

