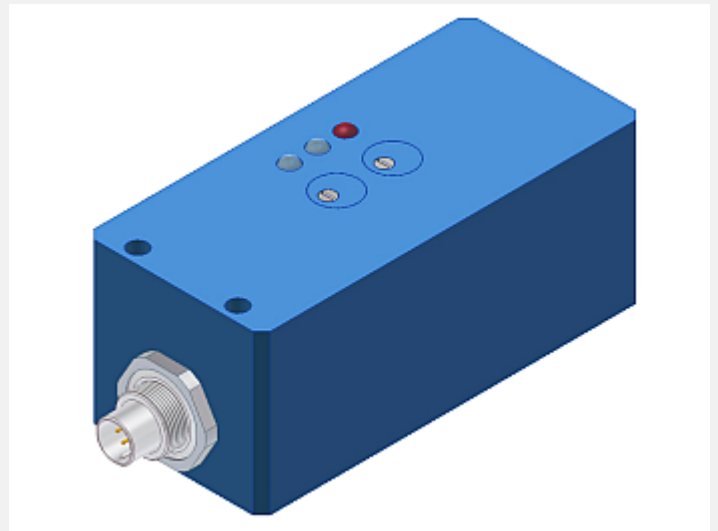


# A-LAS Series

## ▶ AGL4-...

- Electronic control unit for control of A-LAS sensors
- Digital output static and dynamic (15 ms)
- Threshold correction can be activated via jumper
- High switching frequency (typ. 25 kHz)
- Analog output (0V ... +10V)
- Ultrahigh accuracy triggering (in µm-range)
- Detection of smallest objects (starting from 10 µm)
- Dirt accumulation compensation and display
- Switching state display dynamic/static
- Sturdy aluminum housing



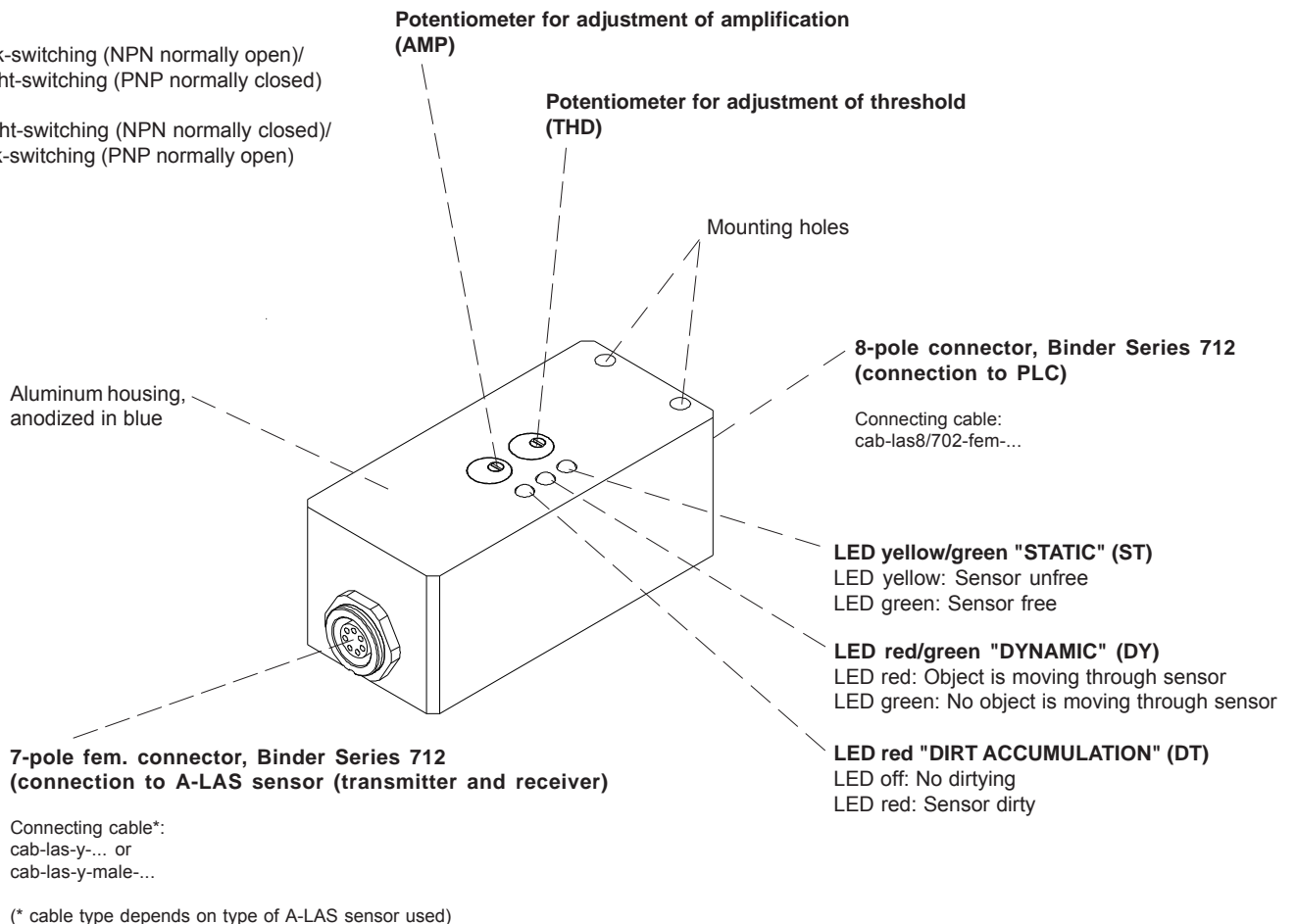
## Design

### Product name:

**AGL4-Q**  
**AGL4-Qinv**

Q = NPN dark-switching (NPN normally open)/  
PNP bright-switching (PNP normally closed)

Qinv = NPN bright-switching (NPN normally closed)/  
PNP dark-switching (PNP normally open)

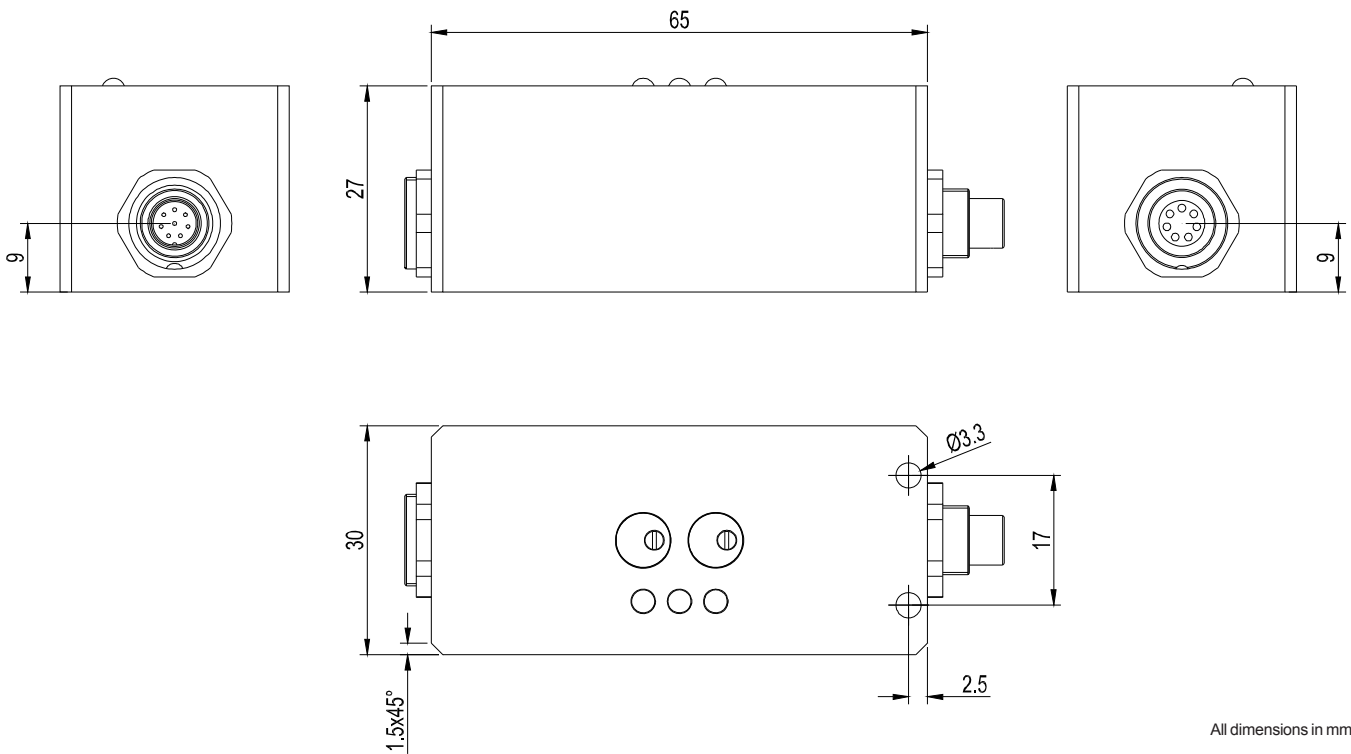




**Technical Data**

Type	AGL4-...
Voltage supply	+24VDC ± 10%, reversed polarity protected, short-circuit protected
Current consumption	with A-LAS sensor: typ. 80 mA
Operating temperature range	-20°C ... +60°C
Storage temperature range	-20°C ... +85°C
Trigger accuracy	< 1µm (depends on the aperture used with A-LAS sensor, and with threshold correction activated)
Minimum detectable object	starting from 10 µm (depends on the aperture of the A-LAS sensor)
Housing material	Aluminium, anodized in blue
Housing dimensions	LxWxH approx. 65 mm x 27 mm x 30 mm
Type of protection	IP 64
Threshold correction	adjustable by means of integrated jumper
Output ANALOG	0V ... +10V
Output DIGITAL STATIC	2x static: Qinv: NPN bright-switching (NPN normally closed) / PNP dark-switching (PNP normally open) Q: NPN dark-switching (NPN normally open) / PNP bright-switching (PNP normally closed)
Output DIGITAL DYNAMIC	1x dynamic (Puls length 15 ms): with AGL4-Qinv: NPN bright-switching (NPN normally closed) / PNP dark-switching (PNP normally open) with AGL4-Q: NPN dark-switching (NPN normally open) / PNP bright-switching (PNP normally closed)
Potentiometer for adjustment of gain factor	3-revolutions-potentiometer integrated in the housing
Potentiometers for adjustment trigger threshold	3-revolutions-potentiometer integrated in the housing
Dirt accumulation display (DT)	LED red (red = sensor dirty, off = no dirtying)
Switching state display (ST)	LED yellow/green (yellow = sensor covered, green = sensor free)
Switching state display (DY)	LED red/green (red = object is moving through sensor, green = no object is moving through sensor)
Connector type	Connection to the PLC: 8-pole circular plug Binder Series 712 (= cab-las8/702-fem) Connection to the A-LAS sensor: 7-pole circular socket Binder Series 712 with integrated cable (various cable lengths available)
Connecting cables	Connecting cable to PLC: cab-las8/702-fem (standard length 2m, max. up to 25m) Connecting cable to A-LAS sensor: cab-las-y or cab-las-y-male (length 1m, 2m, 3m, or 5m)
Switching frequency	typ. 25 kHz
Max. switching current	200 mA, short-circuit-proof
Band width analog signal	50 kHz (-3dB)
EMV test acc. to	DIN EN 60947-5-2

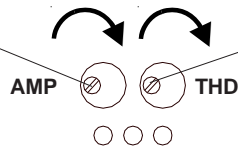
Dimensions



Setting

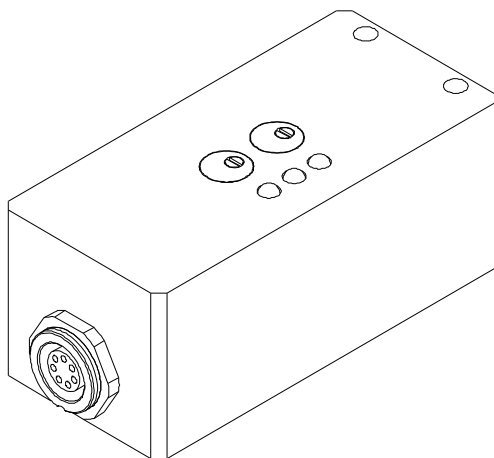
**Potentiometer for adjustment of amplification (AMP)**

Increase of analog signal:  
Rotation clockwise  
(3-revolutions-potentiometer)



**Potentiometer for adjustment of threshold (THD)**

Increase of sensitivity  
Rotation clockwise  
(3-revolutions-potentiometer)



- **LED yellow/green "STATIC" (ST)**  
LED yellow: Sensor covered  
LED green: Sensor free
- **LED red/green "DYNAMIC" (DY)**  
LED red: Object is moved through sensor  
LED green: No object is moved through sensor
- **LED red "DIRT ACCUMULATION" (DT)**  
LED off: No dirt accumulation  
LED red: Sensor dirty

**Jumper for adjustment of threshold correction**

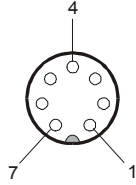
(Jumper inside housing, under cap)

- Fix threshold  
(standard adjustment)
- Alternatively adjustable:  
Threshold correction TC  
(please open cap of housing to switch jumper)

Connector Assignment

Connection AGL4-... to A-LAS sensor  
(transmitter and receiver)  
7-pole female connector Binder Series 712

Pin:	Assignment:
1	GND (0V)
2	+5V
3	not connected
4	+5V
5	ANALOG (0V ... +5V)
6	not connected
7	GND (0V)

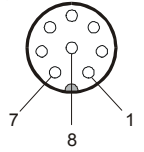
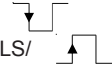


Connecting cable\*:  
cab-las-y-(length) or  
cab-las-y-male-(length)  
(standard length: 1m, also available lengths: 2m, 3m, 5m)

(\* cable type depends on  
type of A-LAS sensor used)

Connection AGL4-... to PLC:  
8-pole connector Binder Series 712

Pin:	Wire/cable:	Assignment:
1	white	GND (0V)
2	brown	+Ub (+24VDC ± 10%)
3	green	THD
4	yellow	DIRT
5	grey	OUT
6	pink	OUT/
7	blue	in case of AGL4-Q: PULS in case of AGL4-Qinv: PULS/
8	red	ANALOG (0V ... +10V)

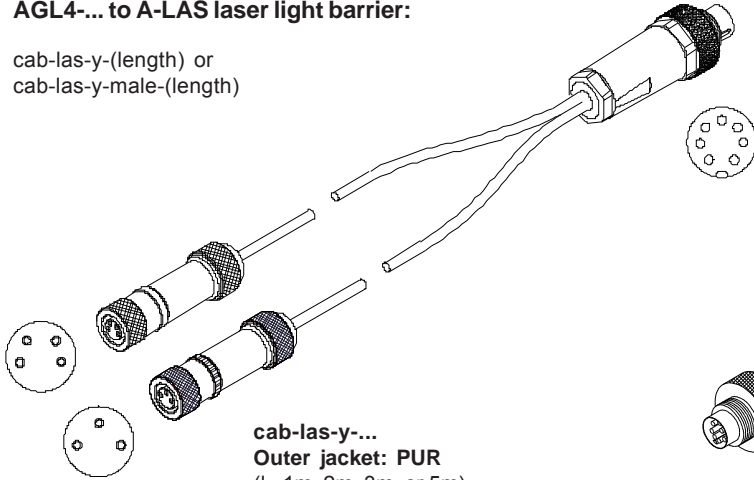


Connecting cable:  
cab-las8/702-fem-(length)  
(standard length: 2m, max. available length: 25m)

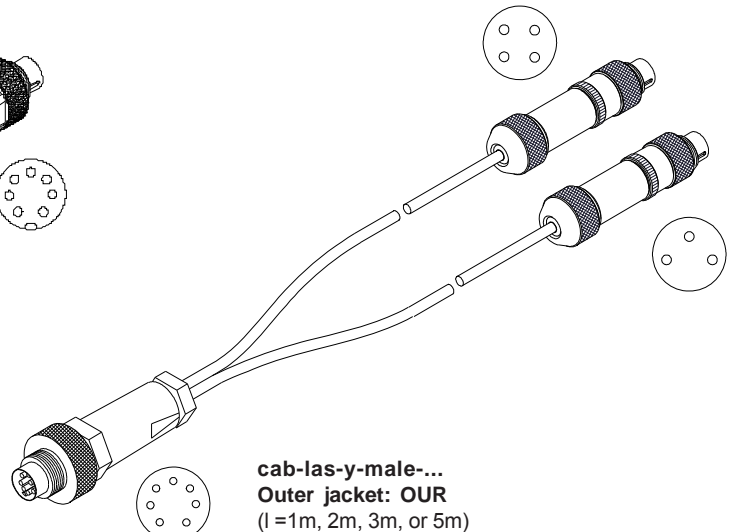
Connecting Cables

Connecting cable  
AGL4-... to A-LAS laser light barrier:

cab-las-y-(length) or  
cab-las-y-male-(length)



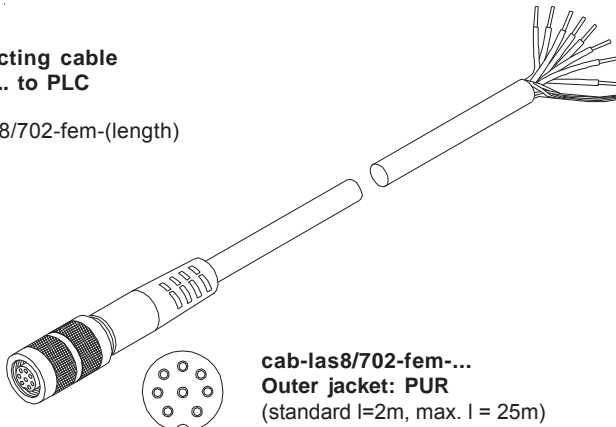
cab-las-y-...  
Outer jacket: PUR  
(l = 1m, 2m, 3m, or 5m)



cab-las-y-male-...  
Outer jacket: OUR  
(l = 1m, 2m, 3m, or 5m)  
suitable for A-LAS-50, A-LAS-75, A-LAS-100

Connecting cable  
AGL4-... to PLC

cab-las8/702-fem-(length)



cab-las8/702-fem-...  
Outer jacket: PUR  
(standard l = 2m, max. l = 25m)