

A-LAS Series

In Proud Partnership with Sensor Instruments



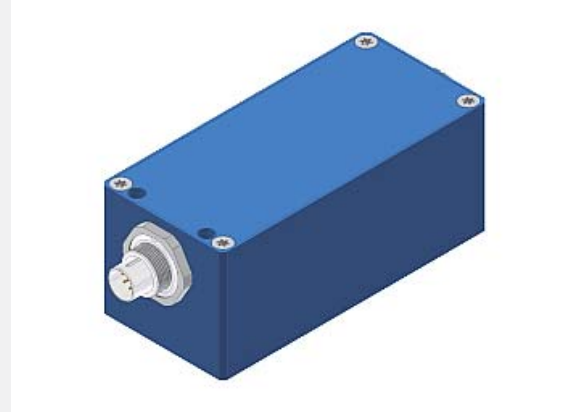
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▶ SI-CON11 Electronic Control Unit

for control of A-LAS light barriers and FIA-A light barriers

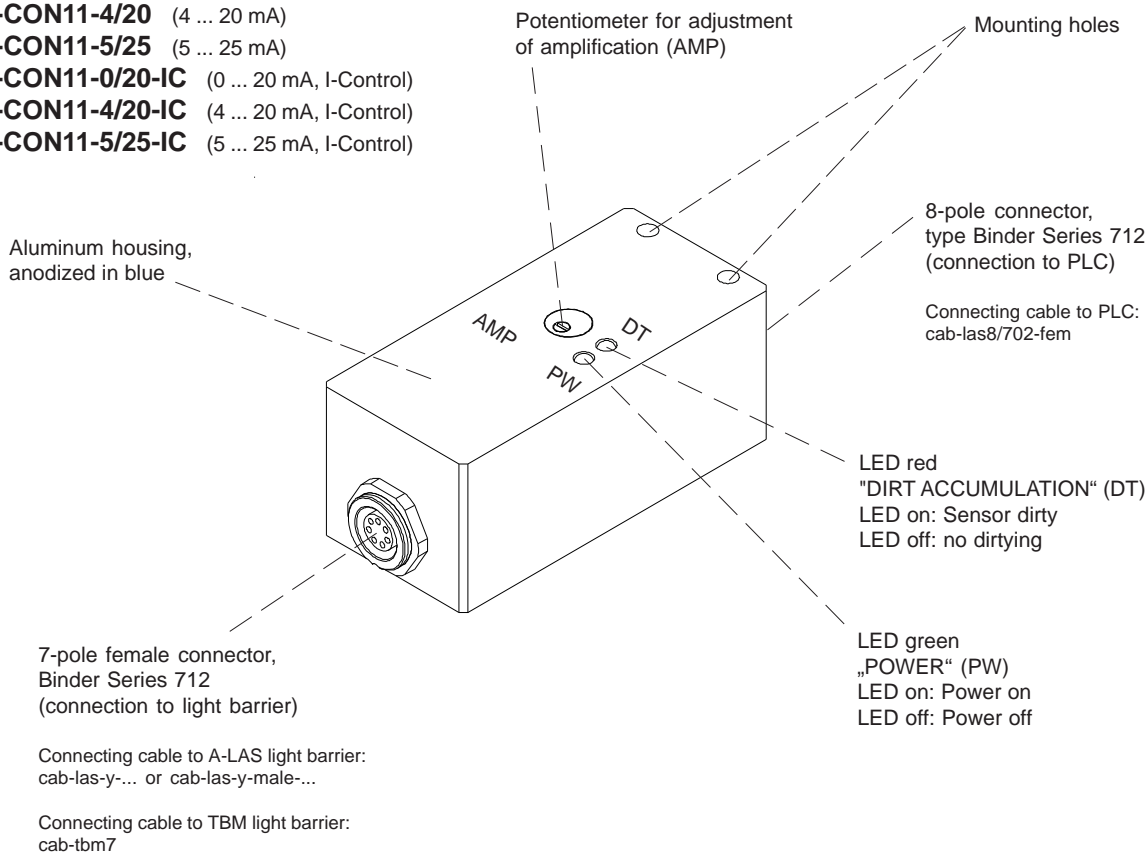
- Voltage output (0V ... +10V)
- Current output to choose from:
 - SI-CON11-0/20: 0 ... 20 mA
 - SI-CON11-4/20: 4 ... 20 mA
 - SI-CON11-5/25: 5 ... 25 mA
- Amplification adjustable by means of a potentiometer
- Dirt accumulation indication by means of a red LED
- Power indication by means of a green LED
- High analog band width: typ. 200 kHz (-3dB)
- Sturdy metal housing
- Optional available with I-Control input



Design

Product name:

- SI-CON11-0/20** (0 ... 20 mA)
- SI-CON11-4/20** (4 ... 20 mA)
- SI-CON11-5/25** (5 ... 25 mA)
- SI-CON11-0/20-IC** (0 ... 20 mA, I-Control)
- SI-CON11-4/20-IC** (4 ... 20 mA, I-Control)
- SI-CON11-5/25-IC** (5 ... 25 mA, I-Control)

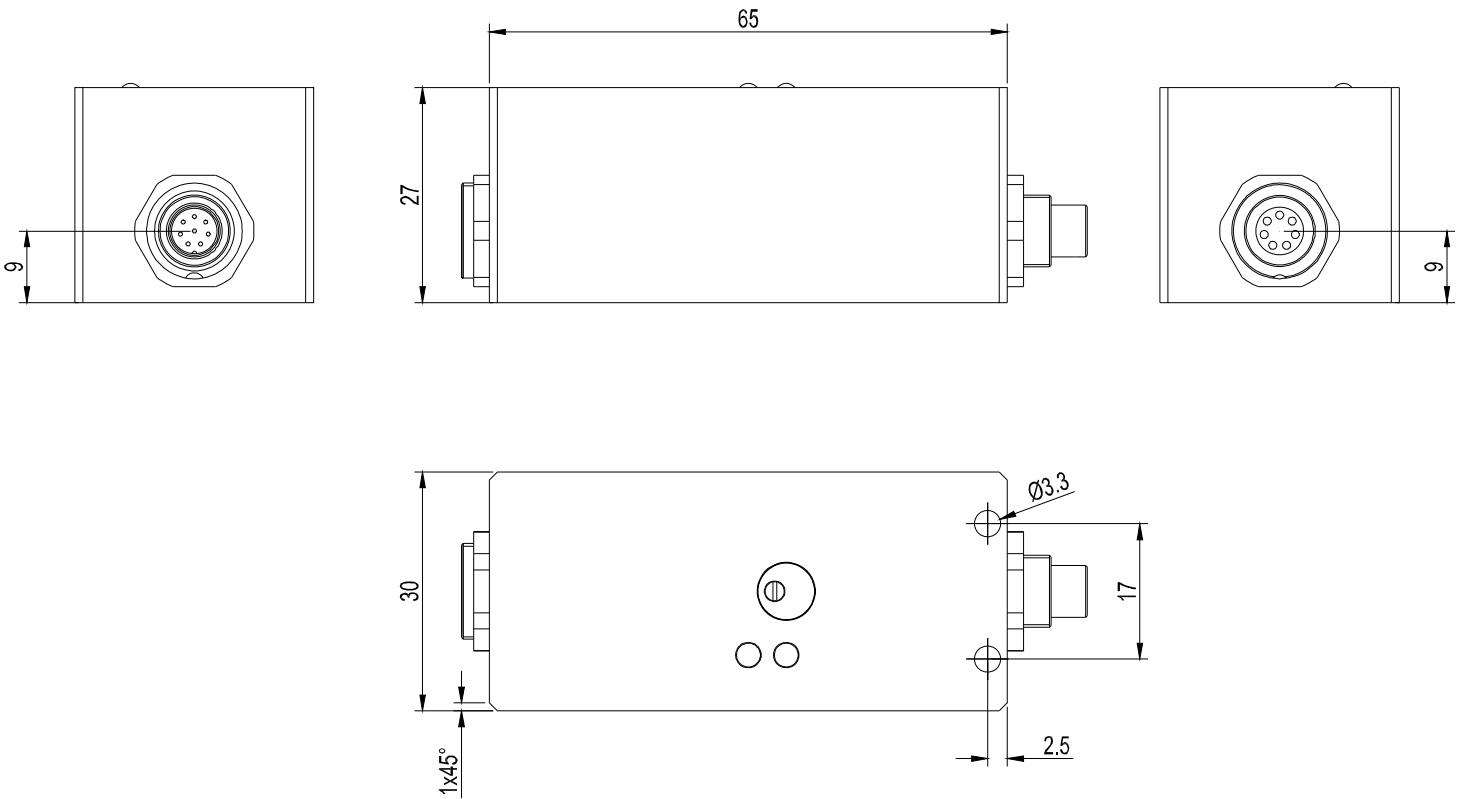




Technical Data

Model	SI-CON11-0/20 SI-CON11-4/20 SI-CON11-5/25	SI-CON11-0/20-IC SI-CON11-4/20-IC SI-CON11-5/25-IC
Voltage supply	+24VDC ± 10%, reversed polarity protected, short-circuit protected	
Current consumption	with A-LAS or TBM light barrier: typ. 80 mA	
Operating temperature range	-20°C ... +80°C	
Storage temperature range	-20°C ... +85°C	
Housing material	Aluminum, anodized in blue	
Housing dimensions	LxWxH approx. 65 mm x 27 mm x 30 mm	
Enclosure rating	IP 64	
Current control input	---	I-Control (pin 4 of the 8-pole circular connector): 0V ... 5V: Laser power decreases linearly with increasing voltage
Outputs analog	Analog voltage output (pin 3 of the 8-pole circular connector): 0V ... +10V (adjustable by means of gain potentiometer) Analog current output (pin 8 of the 8-pole circular connector), to be chosen: 0mA ... 20mA --> SI-CON11-0/20 4mA ... 20mA --> SI-CON11-4/20 5mA ... 25mA --> SI-CON11-5/25	
Potentiometer for adjustment of gain	3-revolutions potentiometer (integrated in the sensor housing)	
Dirt accumulation indication	LED red	
Operating indication	LED green	
Type of connector	Connection to PLC: 8-pole circular connector Binder series 712 (= cab-las8/702-fem) Connection to A-LAS light barrier: 7-pole circular connector Binder series 712 (= cab-las-y-...) Connection to TBM light barrier: 7-pole circular connector Binder series 712 (= cab-tbm7)	
Length of cable	cab-las8/702-fem: l = 2m cab-las-y or cab-las-y-male: l = 1m, 2m, 3m, or 5m cab-tbm7: l = 2m	
Band width analog signal	200 kHz (-3dB)	
EMC test acc. to	DIN EN 60947-5-2	

Dimensions



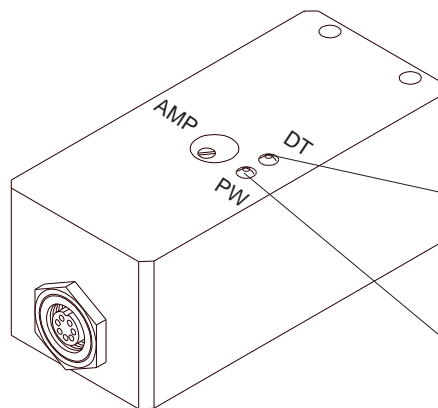
All dimensions in mm

Setting

Potentiometer for adjustment of amplification (AMP):

Setting:

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



LED red
"DIRT ACCUMULATION" (DT)
LED on: Sensor dirty
LED off: no dirtying

LED green
„POWER“ (PW)
LED on: Power on
LED off: Power off

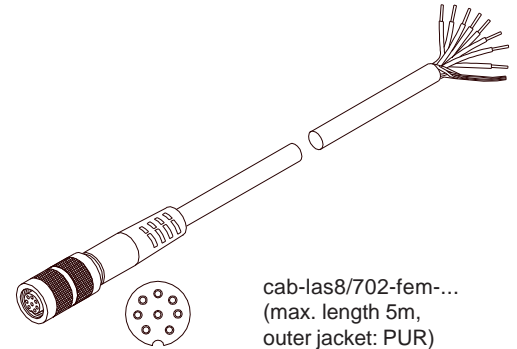
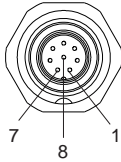


Connector Assignment

Connection to PLC:

8-pole connector Binder Series 712

Pin-No.:	Color:	Assignment:
1	wht	GND (0V)
2	brn	+Ub (+24VDC ± 10%)
3	grn	ANALOG voltage (0V ... +10V)
4	yel	not connected
		in case of SI-CON11-...-IC:
		input I-CONTROL (0V...5V)
5	gry	not connected
6	prnk	not connected
7	blu	not connected
8	red	ANALOG current (0...20mA, 4...20mA, or 5...25mA)



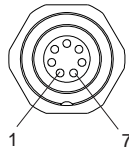
cab-las8/702-fem-...
(max. length 5m,
outer jacket: PUR)

Connecting cable:
cab-las8/702-fem-(length)
(standard length: 2m, also available: 3m, 4m , 5m)

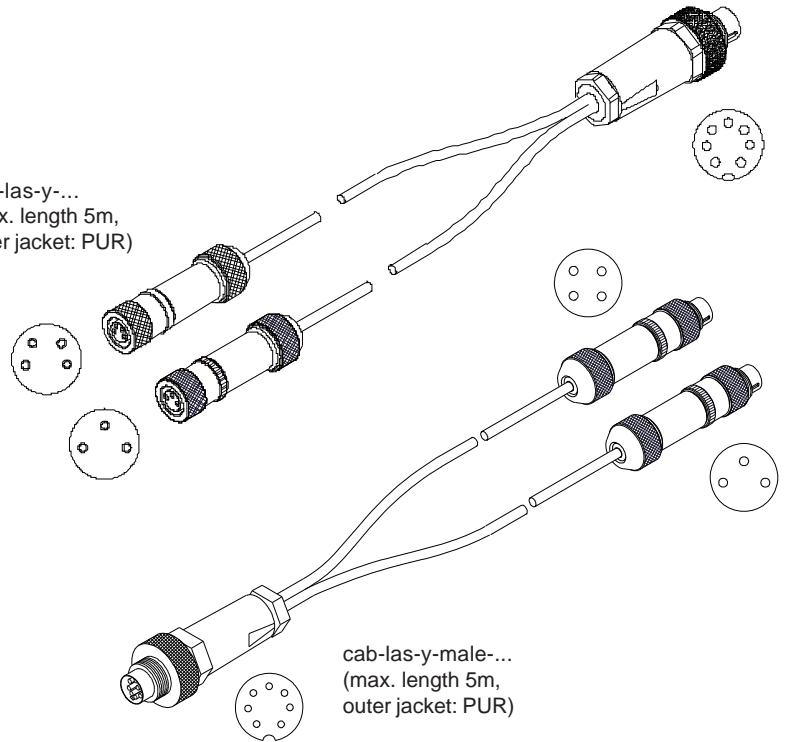
Connection to A-LAS light barrier:

7-pole female connector Binder Series 712

Pin-No.:	Assignment:
1	GND (0V)
2	+5V
3	not connected
	in case of connection to SI-CON11-...-IC:
	input I-CONTROL (0V...5V)
4	+5V
5	ANALOG (0V ... +5V)
6	not connected
7	GND (0V)



cab-las-y-...
(max. length 5m,
outer jacket: PUR)



cab-las-y-male-...
(max. length 5m,
outer jacket: PUR)

Connecting cable:
cab-las-y-(length)
(standard length 1m, also available: 2m, 3m, 5m)

or with light barriers type A-LAS-50, A-LAS-75, A-LAS-100:

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

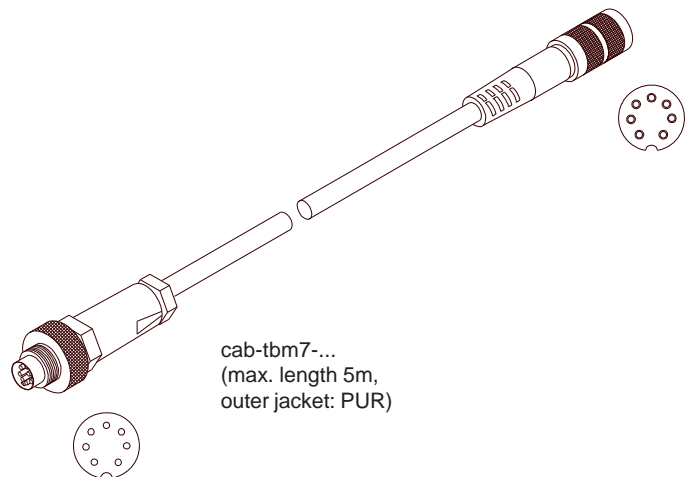
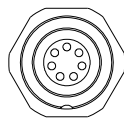
or with light barriers type A-LAS-...-C (= cable version):

Direct connection via cable of light barrier, therefore no additional connecting cable is necessary

Connection to TBM light barrier:

7-pole female connector Binder Series 712

Pin-No.:	Assignment:
1	GND (0V)
2	+5V
3	not connected
4	+5V
5	ANALOG (0V ... +5V)
6	not connected
7	GND (0V)



cab-tbm7-...
(max. length 5m,
outer jacket: PUR)

Connecting cable:
cab-tbm7-(length)
(standard length 2m, also available 3m, 4m, 5m)

