MEASUREMENT

Absorbance

Measuring range	0 … 3 AU
Wavelengths	450, 500, 550, 570, 600, 650 nm
Optical pathlengths	1 mm, 10 mm
Accuracy	± 1 %
Repeatability	0.2 %

ELECTRICAL

Analog Outputs

Number of channels	2
Absorbance	4 - 20 mA, electrically isolated
Resolution	12-bit
Sampling time	500 ms
Enclosure protection rating	600 Ω
Accuracy	± 0.3 %

Digital Input

Voltage range (1)	18 … 30 VDC
Input current	5 mA @ 24 VDC
Input signal type	Sinking
Isolation resistance	1000 GΩ @ 500 VDC

Digital Output

Contact	Solid-state relay
Maximum load current	20 mA @ 24 VDC
Isolation resistance	1000 GΩ @ 500 VDC

Power

Supply	18 … 30 VDC
Maximum power consumption	3 W @ 24 VDC
Reverse polarity protection	Yes
Electrical connection	M12, A Coded, 8-pin

MECHANICAL

Ambient temperature	0 ... 55 °C
Storage temperature	-20 ... 70 °C
Enclosure protection rating	IEC 60529, IP67
Weight	~0.87 kg

Wetted Materials

Probe	FEP (Fluorinated ethylene propylene)
Process connection	Stainless steel EN 1.4404 (AISI 316L)
Seal	EPDM

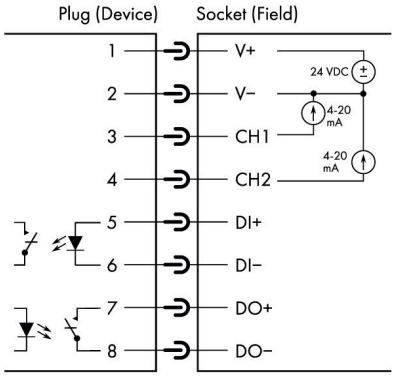
Transmitter Materials

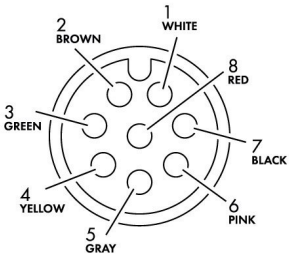
Enclosure	PA6-GF15
Seals	EPDM, TPE, NBR
Display window	PET

GENERAL

Display	TFT-LCD, 2.8", Resistive touch
Electromagnetic compatibility	IEC 61326, Class B
Environmental testing	IEC 60068

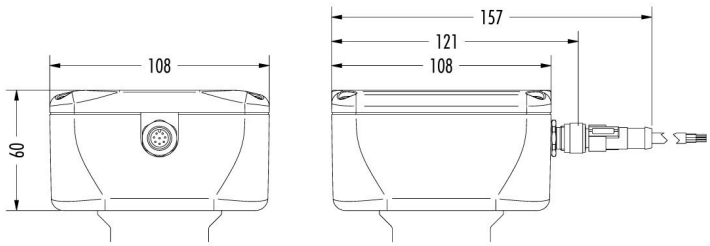
ELECTRICAL CONNECTION





* M12 connector, connection diagram

DIMENSIONS

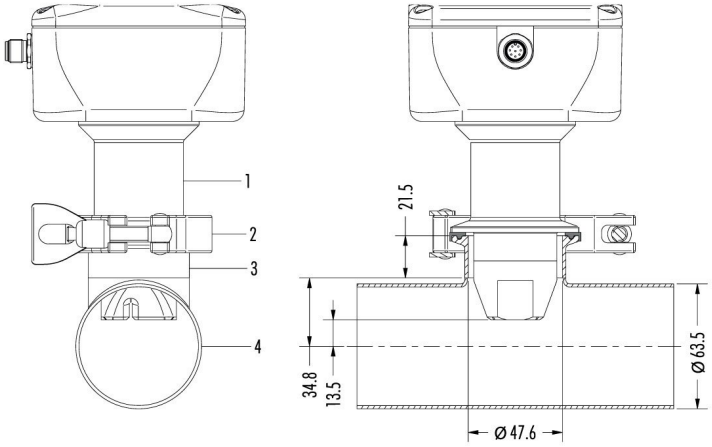


* Transmitter device dimensions in mm

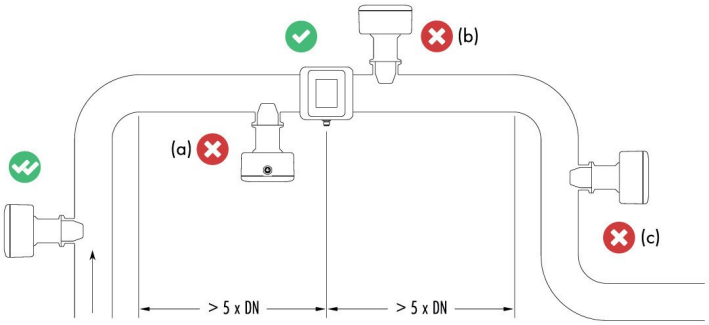
MAINTENANCE & CALIBRATION

- Device calibration should be verified regularly with a reference solution. If needed, re-calibrate it following the calibration procedure.
- The transmitter does not contain any parts that needs maintenance.
- The transmitter cover can be opened only by ELİAR Elektronik.
- A clogged or contaminated measurement path results to misleading measurements. As a maintenance procedure, especially in harsh environments, probe measurement path should be checked regularly. If it is dirty, please remove any debris.
- Don't use concentrated mineral acids or alkaline solutions for cleaning.

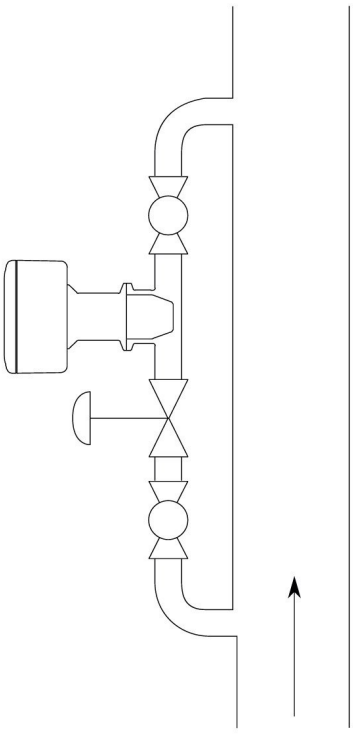
MOUNTING



(1) Process connection, Clamp (ISO 2852) 1 1/2", EN 1.4404
(2) Clamp ring, EN 1.4301
(3) Clamp liner (ISO 2852) 1 1/2", EN 1.4404
(4) Short equal tee (ISO 2037) 1 1/2", EN 1.4404



* To avoid trapped air bubbles and film formation due to the suspended particles, install the sensor in an ascending pipe with the probe bore in the flow direction referring to the arrow on stainless steel body.



* Bypass line mounting example

(1) Device Code	
	SAT210 Spectrophotometric Absorbance Transmitter

(2) User Interface	
D	TFT-LCD with Resistive Touch Screen
0	No

(3) Wireless Connection	
W	Wi-Fi and Bluetooth
0	No

(4) Optical Path Lengths (OPL)	
S1	OPL1: 1 mm, OPL2: 1 mm
S10	OPL1: 10 mm, OPL2: 10 mm
M110	OPL1: 1 mm, OPL2: 10 mm

(5) Process Connection	
C50	Tri-Clamp ISO 2852 1 1/2"

	(1)		(2) (3)		(4)		(5)
Order code structure		-		-		-	
Order code example	SAT210	-	D W	-	S10	-	C50

Transmitter Cables	
TC-M12-8FO-5	Transmitter cable, M12, A-Coded, 8-pin, female/open, 5 meters
TC-M12-8FO-10	Transmitter cable, M12, A-Coded, 4-pin, female/open, 10 meters
TC-M12-8FO-20	Transmitter cable, M12, A-Coded, 8-pin, female/open, 20 meters

Process Connection Sets	
PF-C50-S0	**Tri-Clamp ISO 2852 1 1/2", process connection set:** (PF-C50-S1 + PF-C50-S2 + PF-C50-S3)
PF-C50-S1	EN 1.4404 (AISI 316L) liner
PF-C50-S2	EPDM seal
PF-C50-S3	EN 1.4301 (AISI 304) heavy duty clamp ring
PF-C50-S4	EN 1.4404 (AISI 316L) blind