Аналитика жидкости

РусАвтоматизация

AnaCONT

КОМПАКТНЫЕ ПРЕОБРАЗОВАТЕЛИ РАСТВОРЕННОГО КИСЛОРОДА

ВСЕГДА НА ВЫСШЕМ УРОВНЕ

АНАЛИТИКА

The dissolved oxygen *(DO)* measurement gives the quantity of dissolved oxygen in a liquid, in ppm or mg/l values. The sensor with an oxygen-permeable membrane is submerged in the liquid and it provides an electronic signal proportional to the oxygen concentration.

The electronics calculates and transmits the DO value normalized to +25 °C on the basis of the output current of the DO sensor and the potential of the temperature sensor immersed in the medium.

FEATURES

- Compact DO transmitter
- Remote mount versions up to 10 m
- Measuring range: 0…20 ppm
- Replaceable probe
- Temperature compensation
- Graphic display
- 4…20 mA, HART®, relay output
- Wide range of accessories
- IP67
- Ex variant
- 5 years warranty

APPLICATIONS

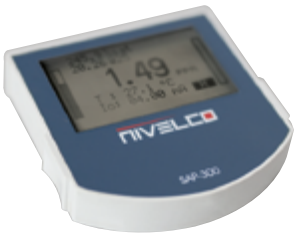
- Checking of water quality
- Wastewater treatment
- Pharmaceutical industry
- Food and beverage industry
- Effluent treatment
- Checking of aeration in potable water
- Pools

CERTIFICATES

- ATEX (Ex ia G)

LED–100

SAT–504
HART® modem



SAP–300
graphic display

DO measurement sensor
LAD–40□–0

PROBES

		DO sensors	
		LAD–402–0	LAD–401–0
DO sensor	Application area	Fish- and crawfish farms, water conditioning of large aquariums. Controlling of oxygen concentration in water plants, determination of biological condition in surface water. *Interchangeable with HACH-LANGE 085g0023 sensor.*	Potable water production, river monitoring, water treatment sites,controlling of dissolved oxygen level in wastewater plants, determination of biological condition in surface water. *Interchangeable with HACH-LANGE 085g0022 sensor.*
	DO range	0…20 ppm	0…10 ppm
	Process temperature	Up to +50 °C	
	Process pressure	Maximum 1 bar	
	Flow speed	Minimum 0.05 m/s	
	Material / thickness of membrane	PTFE / 125 µm	PTFE / 50 µm

TECHNICAL DATA

		AnaCONT L□D – DO transmitter
Measurement data	Range	0…20 ppm / 0…10 ppm
	Reserve	20%
	Resolution	0.01 ppm (internal resolution: 0.005 ppm)
	Linearity	±0.05 ppm
	Accuracy [1]	0.5% of the measured value ±1 digit ±0.01% / °C
	Measuring cycle	300 msec, on display: 1 s
Temperature measuring (semiconductive sensor)		Range: –50…+130 °C, Accuracy: ±0.5 °C, Resolution: 0.1 °C
Liquid potential (complementary) electrode		Housing of the temperature sensor: stainless steel (1.4571), connection: SN6
Electrode input		DO sensor input: galvanically isolated current input, 0.725 V polarization voltage, connection: SN6
Supply voltage / Power consumption		12…36 V DC / 48…720 mW, galvanically isolated, transient overvoltage protection
Output	Analog	4…20 mA, (3.9…20.5 mA), R_{Lmax} = 1200 Ω galvanically isolated, transient overvoltage protection
	Relay	SPDT: 30 V DC, 1 A DC
	Display	LCD graphic display (SAP–300), units of measure and bar graph
	Digital communication	HART®
Process temperature (pressure dependent) [1]		PP probe housing: –10…+90 °C, PVDF probe housing: –15…+100 °C
Pressure (absolute) [1]		Max. 0.1 MPa (1 bar) at +25 °C
Ambient temperature		Aluminum housing: –30…+70 °C, Plastic housing: –25…+70 °C, with display: –20…+70 °C
Seal		PP probe housing: EPDM, all other probe housing: FPM (Viton®)
Ingress protection		Probe housing: IP68, Electronic housing: IP67
Housing material		Plastic (PBT) or painted aluminum
Material of probe housing		Polypropylene (PP), PVDF
Electrical connection		2× M20×1.5 plastic cable glands for cable: Ø6…Ø12 mm, or 2× M20×1.5 metal cable glands for cable: Ø7…Ø13 mm wire cross section: 0.5…1.5 mm² (shielded cable is recommended), + 2× internally threaded ½" NPT connection for protective pipes
Electrical protection		Class III electric shock protection

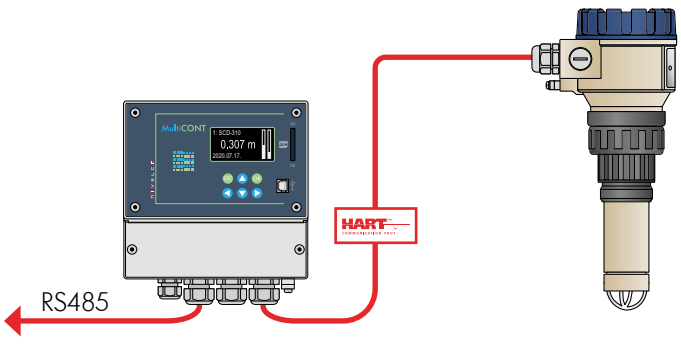
[1] *Depending on probe*

Ex INFORMATION

Protection	Intrinsic safety
Ex marking	Ex II1G Ex ia IIB T6 Ga
Intrinsic safety data	C_i ≤ 15 nF, L_i ≤ 200 µH, U_i ≤ 30 V, I_i ≤ 140 mA, P_i ≤ 1 W Ex transmitters must use an Ex ia power supply
Process temperature	0…+50 °C
Ambient temperature	Aluminum housing: –30…+70 °C, Plastic housing: –20…+70 °C, With display: –20…+70 °C

AnaCONT IN SYSTEM WITH MultiCONT

The **MultiCONT** can handle digital data from up to 15 HART® transmitters measuring different values *(e.g., DO temperature, level, pressure)*. The digital *(HART®)* information is processed, displayed, and – if necessary – it can be transmitted via RS485 to a PC. The transmitter can also be programmed remotely. Data can be visualized on a computer using the **NIVISION** process visualization software.



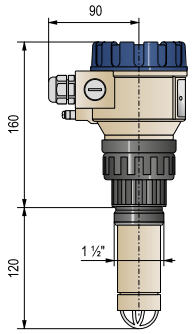
MOUNTING VERSIONS

The construction of the sensors of the compact and integrated versions are identical, so all accessories can be used with both types.

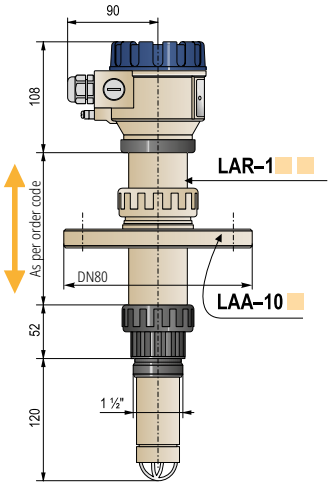
Using the accessories designed specifically for the **AnaCONT** family helps optimize the installation of the transmitters making the installation process easier.

By using extension pipes and extension cables, the remote-mount versions allow mounting the electronics and the sensor at any distance from each other.

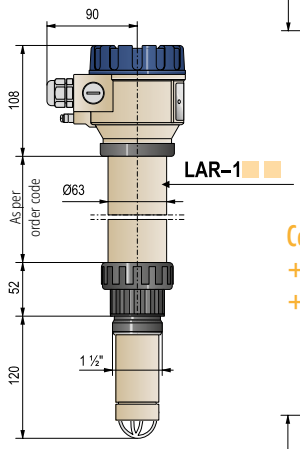
COMPACT TRANSMITTER



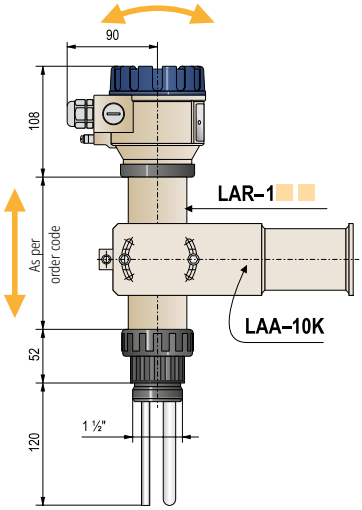
Compact transmitter
+extension pipe
+ sliding sleeve with flange



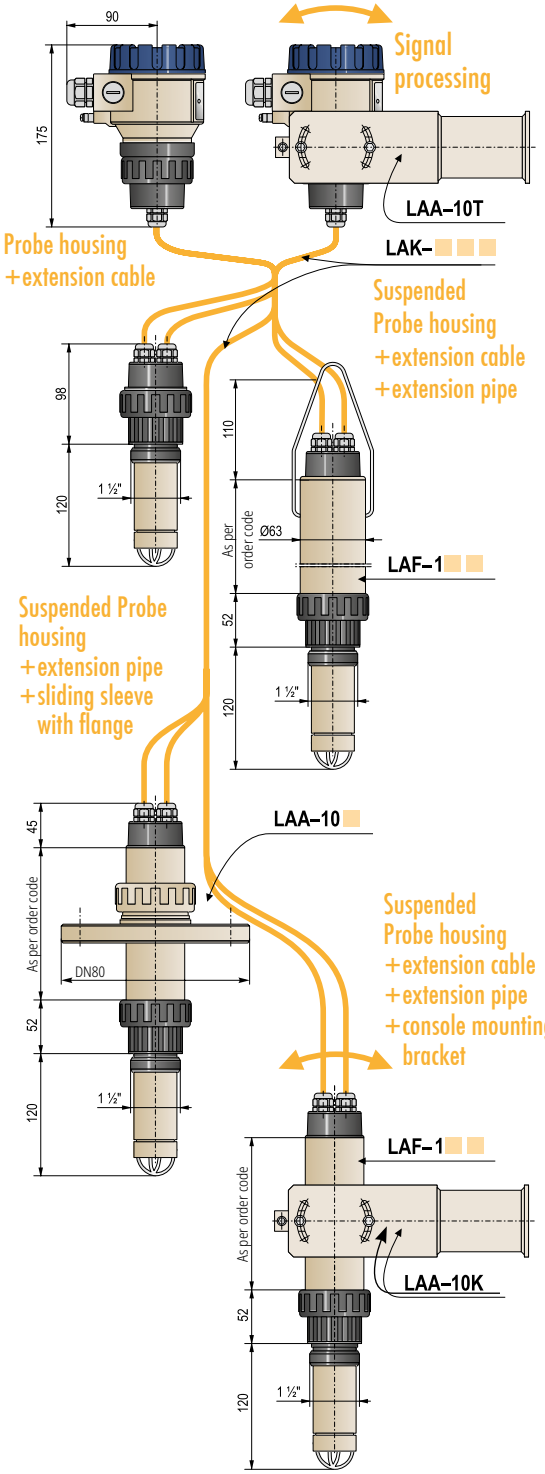
Compact transmitter
+extension pipe



Compact transmitter
+extension pipe
+console mounting bracket

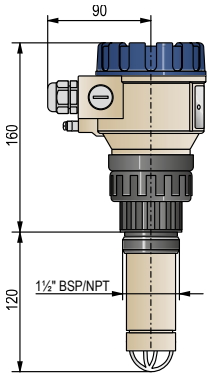


DETACHED COMPACT TRANSMITTER



AnaCONT LED–100 — 5 years

2-wire compact liquid analytical DO (dissolved oxygen) transmitter with current / HART® and relay output
DO measuring range: depending on the applied sensor: 10 ppm or 20 ppm



LED-100

Type

L ■□ – ■■■ – ■

D	Compact DO transmitter

Version

L □ D – ■■■ – ■

E	Transmitter
G	Transmitter with plug-in display

Housing

L ■ D – □■■ – ■

1	Fiberglass-reinforced plastic (PBT)
2	Painted aluminum

Probe

L ■ D – ■□■ – ■

2	DO1-mA-10 (10 ppm)
1	DO1-mA-20 (20 ppm)

Process connection / Material

L ■ D – ■■□ – ■

1	1½" BSP / PP
2	1½" BSP / PVDF
4	1½" NPT / PP
5	1½" NPT / PVDF

Output / Certificates

L ■ D – ■■■ – □

2	4...20 mA
4	4...20 mA + HART®
6	4...20 mA / Ex ia G
8	4...20 mA + HART® / Ex ia G
R	4...20 mA + Relay
H	4...20 mA + HART® + Relay

Accessories sold separately; see relevant page for details

S A P – 3 0 0 – 0	Graphic plug-in display module
S A T – 5 0 4 – ■	HART®-USB/Bluetooth® modem
S A K – 3 0 5 – ■	HART®-USB/RS485 modem

For further accessories see AnaCONT accessories

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