

SIGNUX COA01

Water quality — RS485



DESCRIPTION

Integrated conductivity transmitter for continuous monitoring of water and aqueous solutions. Electrode and electronics in a single IP68 body, RS485 Modbus RTU output, automatic temperature compensation and salinity and TDS conversion. Two cell constants: $k = 1$ for 1-2000 $\mu\text{S}/\text{cm}$ and $k = 10$ for 10-20000 $\mu\text{S}/\text{cm}$. 7-30 V DC.

This product adopts an integrated design, the structure is lighter and simpler, and the use is more convenient. Waterproof grade IP68. It can be widely used in continuous monitoring of the conductivity value of aqueous solutions such as section water quality, aquaculture, sewage treatment, environmental protection, pharmaceuticals, food and tap water.

FEATURES

- Maximum range of conductivity measurement: 1~20000 $\mu\text{s}/\text{cm}$
- Temperature measurement range: -20~60
- Waterproof grade: IP68
- Salinity and TDS included: Besides conductivity and temperature, the probe reports salinity and total dissolved solids in ppm, ready to use.
- RS485 communication interface: communication address can be set, baud rate can be modified
- The equipment adopts wide voltage power supply: DC 7~30V can be used

AT A GLANCE

Measures	Conductivity · Temperature · Salinity · TDS
Output	RS485
Protection	IP68
Operating	-20 to +60 °C

GENERAL

Measured parameters	Conductivity · Temperature · Salinity · TDS	
Output	RS485	Modbus RTU
Process connection	NPT 3/4"	At both ends

CONDUCTIVITY

Range	1-2000 µS/cm 10-20000 µS/cm	With cell constant k = 1 With k = 10
Resolution	.1 µS/cm 1 µS/cm	k = 1 k = 10
Accuracy	±1 % FS	

TEMPERATURE, SALINITY AND TDS

Temperature range	-20 to +60 °C	
Temperature resolution	.1 °C	
Temperature accuracy	±0.5 °C	
Temperature compensation range	-20 to +60 °C	Automatic, referred to 25 °C; coefficient 0.02 by default, adjustable
Temperature compensation coefficient	.02	default

OTHER PARAMETERS

Salinity range	0-11476 ppm	Calculated from conductivity
TDS range	0-13400 ppm	Calculated from conductivity
Power supply	7-30 VDC	
Power consumption	0.4 W	
Configuration	Over RS485	Address, baud rate, offsets, compensation coefficient, cell constant, calibration

OUTPUT AND POWER

Output interface	RS485	Modbus RTU, baud rate configurable from 1200 to 115200 baud
Default communication	4800 baud · address 1	8 data bits, no parity, 1 stop bit
Power supply	7-30 VDC	
Power consumption	.4 W	
Configuration	Over RS485	Address, baud rate, offsets, compensation coefficient, cell constant, calibration

CONSTRUCTION

Protection rating	IP68	
Operating temperature	-20 to +60 °C	
Maximum pressure	6 bar	0.6 MPa
Dimensions	266 × 30 mm	Body 212 mm; electrode window 28 mm
Cable length	5 m	Other lengths on request

PART NUMBERS

PART NUMBER	MEASUREMENT RANGE
SX-COA01-1	k = 1 · 1-2000 µS/cm
SX-COA01-10	k = 10 · 10-20000 µS/cm