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LEAFLET



CL3001

CHLORINE/DISSOLVED OZONE
TRANSMITTER, 4-20 mA,
RS485 – MODBUS RTU



TO MEASURE  TO KNOW

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The **CL3001** transmitter is the best solution for the installations where it is necessary the retransmission of the measures at distance. The sensors in our catalog allow the measurement of the main oxidizing substances, such as residual free chlorine, combined and total chlorine, chlorine dioxide, dissolved ozone, hydrogen peroxide and peracetic acid. Thanks to a “current loop” 4-20 mA isolated output and RS485 serial interface, the transmitter can be easily connected to the most common PLC or other remote supervision and control systems. The calibration of the sensor and the configuration of the transmitter can be done locally or remotely via the serial interface.

Main features

Range

0 ÷ 2.000/20.00/200.0/2000 mg/l
0 ÷ 2.000/20.00/200.0/2000 ppm
-10.0 ÷ 110.0 °C , 14.0 ÷ 230.0 °F

Display

It shows the values of the measures and the messages that guide the user in the various stages of set-up and configuration.

Keyboard

There are dedicated keys to directly access zero and sensitivity calibration.

Temperature compensation

The transmitter performs the manual or automatic temperature compensation.

Calibration

To improve the potential life of the sensor, the transmitter allows to perform the zero and sensitivity calibration in a wide range.

Filter software

The user can set two filters in order to obtain a stable reading and a faster response to the variations of the measurement in the process.

Analog output

The 4-20 mA current loop is galvanically isolated, so that can be interfaced directly to a PLC or data acquisition cards.



Serial interface

The isolated RS485 serial interface allows connection to a PLC, terminals or PC, using the B&C (ASCII) or Modbus RTU protocol. The B&C (ASCII) protocol allows the transmission of measures and the management of calibration and configuration. The Modbus RTU protocol features the 03, 06, 16 functions. The digital and analog mode can be used simultaneously.

Logic input

The free voltage contacts can create the hold condition.

Power supply

The transmitter is 9 ÷ 36 Vdc current loop powered, directly from a PLC, from data acquisition boards or by a power supply in series between the analog output and the acquisition apparatus.

Easy installation

The small size of the transmitter and the removable terminal blocks facilitate the installation in control cabinets or waterproof enclosures for DIN Rail components.

Sensors

The transmitter is compatible with all chlorine, dissolved ozone, and other oxidizing sensors offered by B&C/Nieuwkoop. Temperature is measured by means of Pt100 3 wires probe.



Applications

- Aquaculture
- Chemical industry
- Drinking water
- Electroplating
- Fertirrigation
- Paper and pulp
- Pharmaceutical
- Printing industry
- Swimming pools
- Textile industry
- Underground water
- Water treatment

Technical specifications

Inputs: 2 or 3 wires sensors

Pt100

Polarization voltage: -1000 ÷ 1000 mV

Measuring unit: ppm or mg/l

Reference temperature: 20 °C

Temperature coefficient: 0.00 ÷ 4.00 %/°C

Zero: ± 20 %, ± 5° C, ± 9 °F

Sensitivity: 12.5 ÷ 250 %

Resolution: 1 digit

Accuracy: 0.2 %

Repeatability: 0.1 %

Non-linearity: 0.1 %

Filter software: large signal: 1÷20 seconds

small signal: 1÷20 seconds

Analog output: 4-20 mA, Rmax 600 ohm

Operating temperature: 0 ÷ 50 °C

Humidity: 95 % without condensation

Power supply: 9/36 Vcc

Terminal blocks: extractable

Weight: 250 g

Enclosure: protezione IP 40

Dimensions: 71x95x58 mm (4 DIN modules)

Registered design: 002564666-001

EMC/RFI conformity: EN 61326

Installation accessories



Enclosure for 1 transmitter

Dimensions: 143x210x100 mm

Protection: IP65

Wall mounting: with brackets, to be ordered separately



Enclosure for 2 transmitters

Dimensions: 215x210x100 mm

Protection: IP65

Wall mounting: with brackets, to be ordered separately



Enclosure for 3 transmitters

Dimensions: 298x260x140 mm

Protection: IP65

Wall mounting: with brackets, to be ordered separately



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