PH 3436

pH / redox transmitter 4-20 mA – RS485 – Modbus RTU

The **PH 3436 pH / ORP** transmitter is the best solution for the installations where it is necessary the retransmission of the measures at distance.
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 ÷ 14.00 pH
0 ÷ 1000 / 2000 mV
0 ÷ -1000 / -2000 mV
-1000 ÷ 1000 mV
-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 instrument performs the manual or automatic temperature compensation of pH.

Calibration
Standard solutions (pH 4, pH 7, pH 9 and 220 mV) are stored in the transmitter's memory and they are automatically recognized during calibration.

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 B&C Electronics pH (glass or antimony) and ORP sensors.
Temperature is measured by means of Pt100 3 wires probes.

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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:	pH electrodes (glass or antimony) ORP electrodes Pt100
Zero:	± 2 pH, ± 100 mV, ± 5 °C, ± 9 °F
Sensitivity:	80 ÷ 110 % (70 ÷ 140 % antimony)
Resolution:	0.01 pH, 1 mV, 0.1 °C/°F
Accuracy:	0.2 %
Repeatability:	0.1 %
Non-linearity:	0.1 %
Filter software:	large signal: 2 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:	IP 40
Dimensions:	71x95x58 mm (4 DIN modules)
Registered design:	002564666-001
EMC/RFI conformity:	EN 61326

The technical specifications could be changed without notice.

Installation accessories

BC 9404.1
Enclosure for 1 transmitter
Dimensions: 143x210x100 mm
Protection: IP65
Wall mounting: with **BC 9491.1** brackets, to be ordered separately

BC 9408.1
Enclosure for 2 transmitters
Dimensions: 215x210x100 mm
Protection: IP65
Wall mounting: with **BC 9491.1** brackets, to be ordered separately

BC 9412.1
Enclosure for 3 transmitters
Dimensions: 298x260x140 mm
Protection: IP65
Wall mounting: with **BC 9491.1** brackets, to be ordered separately