

## REDOX POTENTIAL CONTROLLER CR-801

**CR-801** redox potential controller is designed to make measurements of redox potential in pure water and sewage. It is one of the devices of new generation representing wide range of use. Designed to work in power stations, heat and power plants and water treatment stations.

It is a stationary device in housing resistant to humidity (IP-65).

High measurement accuracy and stability have been provided. The device has a large, graphic display, showing the redox potential in mV and temperature readout and the status of each relay simultaneously. The graphic display enables to choose among the displayed information.

Apart from the basic data – redox potential and temperature – one of the following additional parameters may be chosen to be displayed: information about the relays' status or information about the last calibration date.

The device is easy to operate, has an English menu. It is equipped with a collective optical signalisation of working correctness and the progress of regulation process.

Thanks to the modern electronic components the controller's memory has become fully independent from the power supply.

**CR-801** cooperates with **Pt-1000** temperature probe.

The controller is powered with standard 230 V voltage, which is galvanically isolated from the input clamps.

It is possible to use different power supply voltage: 110/230/24 V AC, 12 – 24 V DC (optionally).

### Outputs:

relays (alarm or PID regulation);

isolated digital: RS-485, MODBUS (ASCII and RTU);

isolated current outputs: 0 ÷ 20 or 4 ÷ 20 mA.

In case of using the relays and exceeding the entered lower or upper limits, the proper relay is switched (minimum and maximum alarm), otherwise the duty cycle coefficient or frequency is changed (for the PID controller).

The meter is equipped with real time clock with date.

It is possible to connect to the remote panel (keyboard with display), which enables controlling the device from up to 1 km distance.

Possibility of the data radio transmission from the measuring head to the controller.

24 months of warranty, quick warranty and after warranty service.

Made in Poland.



The redox electrode, which cooperates with the device, is placed in the head. In case of mV measurements in containers we recommend **GXZ-1t** head with suitable redox electrode chosen for the measured liquid. The signal is amplified by preamplifier placed in the head.

The mV measurement in a pipeline is made with use of the **GXP-1t** flow-through head with appropriate electrode chosen depending on the measurement conditions. For steel pipelines we offer a special mounting equipment for the redox electrode, which is mounted on a thread placed on the pipe and made according to our drawings.

If pressure in the pipeline is higher than 6 bars, we recommend **GXP-01** head, which is side-built and provides natural outflow of excess of liquid. In case of using flow-through heads the preamplifier is mounted next to the head.

There is a possibility of wireless data transmission from the head to the controller.

## TECHNICAL DATA

<b>Measured value</b>	mV (redox), temperature
<b>mV range</b>	± 2000 mV
<b>Resolution</b>	±1 mV
<b>Accuracy (±1 digit)</b>	±1 mV*
<b>Input impedance</b>	>10 <sup>12</sup> Ω
<b>Temperature measuring range</b>	-50 ÷ 200 °C**
<b>Temperature accuracy</b>	±0.2 °C*
<b>The relays' parameters</b>	2A/250VAC/30VDC, PID controlling
<b>Measurement input</b>	isolated
<b>mV datalogger output</b>	isolated, 0 ÷ 20 mA or 4 ÷ 20 mA
<b>Temperature datalogger output</b>	isolated, 0 ÷ 20 mA or 4 ÷ 20 mA
<b>RS485 output</b>	isolated
<b>Maximal RS485 connection length</b>	1000 m
<b>Maximal cable length between preamplifier and controller</b>	200 m
<b>Maximal distance between sensor and preamplifier</b>	10 m
<b>Power</b>	40 V 50Hz, for a special order 170VAC÷250VAC, 24VDC/24 VAC
<b>Isolation class</b>	PN-83/T-06500
<b>Radio-electric interference</b>	N level
<b>Dimensions (L x W x H)</b>	215 x 215 x 95 mm
<b>Weight of controller / preamplifier</b>	1350 g / 150g
<b>Ambient temperature</b>	-20 ÷ 40 °C
<b>Atmospheric humidity / pressure</b>	Max. 80% / 80 ÷ 110 kPa
<b>Atmospheric aggressivity level</b>	N/2/AG-U/C

\* The accuracy of the meter only.

\*\*The temperature measurement range is limited to the temperature operating range of redox electrode.