



## pH-4131 pH/ORP-meter industrial



pH-meter pH-4131 is designed to measure the hydrogen ion activity (pH) or redox potential (ORP) and temperature (T) of the analyzed liquid complete with the combination electrode.

pH-meter provides a digital display and a graphical display of the measured values of pH and temperature, or OPR and temperature, their proportional conversion to standard analog output DC signals, data exchange with a computer via digital interface RS-485, alarming the measured parameters overranging the specified values, as well as their archiving.

pH-meter body is made of ABC plastic and it is designed for wall mounting.

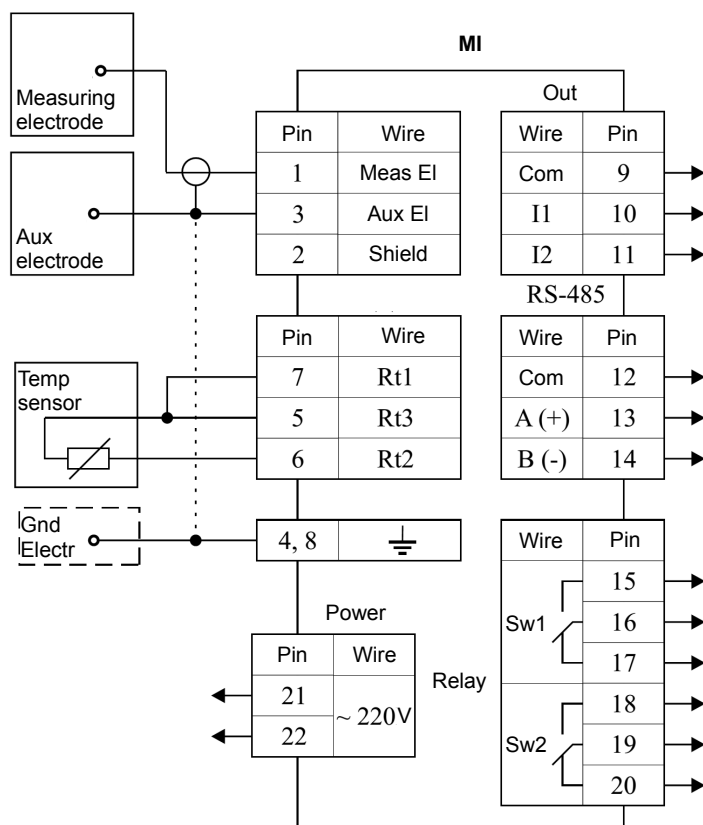
For the purpose of ultra-pure water analysis, the pH-meter can be equipped with the hydraulic panel HP-4131, which is designed for preliminary preparation of the analyzed liquid: filtering and stabilizing of the flow through the measuring cell, as well as for the pH-meter adjustment according to buffer solutions.

Scope of application: heat power industry, chemical, petrochemical, food processing, brewery and other industries.

### BASIC TECHNICAL SPECIFICATION AND PARAMETERS

pH measuring range	0...14
ORP measuring range	(-750...+750)mV
Analyzed liquid temperature range	look section Electrodes: Combined pH and ORP
Indicator type	LCD graphics
Basic absolute error value limit:	
- measuring pH complete with ES	± 0,05 pH
- measuring ORP	±2mV
- measuring temperature	± 0,5°C
Cable length up to a combination electrode	max 4m
Output signals parameters:	
-two analog, programmable	(0..5), (0..20) or (4..20)mA
-one interface	RS-485, ModBus RTU data communications protocol
-two discrete	switching over dry contact, 240V, 3A (relay 1 can be used to control the electrode cleaning system)
Electrode cleaning mode parameters:	
- between cleaning interval	from 10 sec to 4 hours;
- cleaning duration	from 1 sec to 1 min;
- Hold / measurement off-time	from 1 sec to 1 min
Setting Alarm range for pH and temperature	in the whole measuring range
Thermal compensation mode:	
- automatic or manual taking into account the temperature dependence of the EMF of the electrode system;	
-automatic or manual as well by taking into account the temperature dependence of ultra-pure water pH	
Archiving interval	programmable from 1 sec to 5 min
Archiving time	from 4.4 hours to 55 days
Power supply voltage	~(100..240) V, (50..60)Hz
Power consumption	max 15VA
Dust and water protection	IP65
Enclosure material	ABS plastic
Climatic version	T=(+5...+50)°C
Seismic resistance NP-031-01 (Rus)	category II
Resistance to mechanical influences	N2
Weight	max 1,6kg

## EXTERNAL WIRING



**MI** — measuring instrument;  
**Meas EI** - measuring electrode;  
**Aux EI** — auxillary electrode;  
**Temp sensor** — temperature sensor;  
**Gnd Electr** — grounding electrode (possible use the holder)

Figure 1. Connection of a combined electrode and a temperature sensor to a measuring instrument

## ENCLOSURE DIMENSIONS

The overall and mounting dimensions of the measuring device are given in the description of pH-4122

## ACCESSORIES

- combination electrode (see section "Combination pH and ORP electrodes»);
- holders for pH-electrodes installation (see section "Holders sensors");
- hydraulic panel HP4131;
- pH-metric cable.

## ORDER REFERENCE CODE

To place an order, use the order reference in the description of pH-4101 and the questionnaire.