



pH-4110 industrial pH-meter with a remote primary transducer

pH-meter pH-4110 is designed to measure the hydrogen ion activity (pH) or redox-potential (ORP) and temperature (T) of the analyzed liquid complete with submersible or flow-type holders.

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, signaling on the measured parameters overranging the specified values, as well as their archiving.

pH-4110 consists of a primary transducer (PT) and a measuring instrument (MI).

The measuring instrument pH-4110 enclosure is designed for wall mounting.

The instrument calibration with buffer solutions is performed from the measuring instrument menu.

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

BASIC TECHNICAL SPECIFICATION AND PARAMETERS

PRIMARY TRANSDUCER

pH measuring range.....	0..14
Basic absolute error measuring pH	± 0,05 pH
Analyzed liquid temperature range	look section Electrodes: Combined pH and ORP
Basic absolute error temperature measurement	± 0,5°C
Thermal compensation modes.....	automatic, manual
Climatic version.....	T=(-40..+50)°C
Dust and water protection	IP65
Resistance to mechanical influences	V2
Seismic resistance	category II
Enclosure material:	
- D type	aluminum alloy
- S type.....	stainless steel SS316
Weight.....	max 2kg

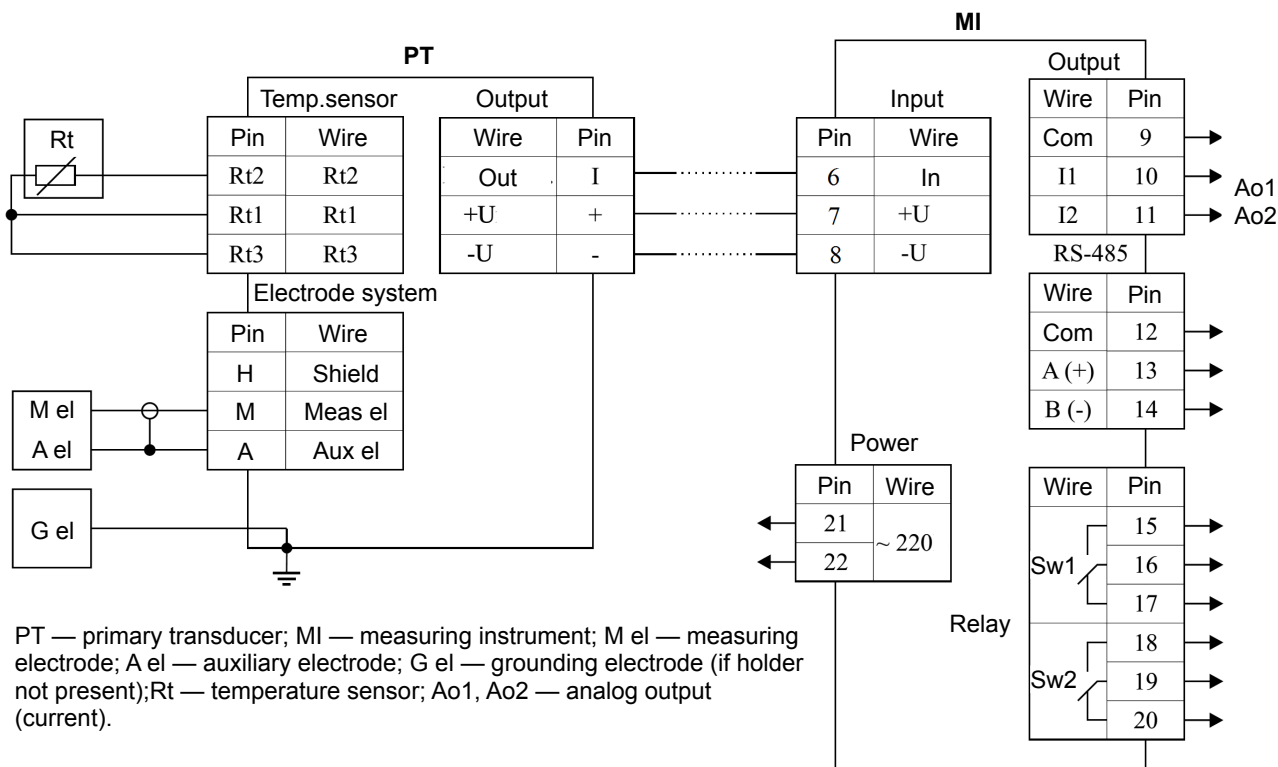
MEASURING INSTRUMENT

Indicator type.....	LCD graphics
Enclosure type.....	wall mounting
Communication line between PT and MI is three-wire.....	0.35 mm ²
Communication line length.....	max 600m
Output signals parameters:	
-two analog, programmable.....	(0..5), (0..20) or (4..20)mA
-one digital.....	RS-485, ModBus RTU data communications protocol
-two discrete.....	switching over dry contact, 240V, 3A <i>(relay 1 can be programmed to control the electrode system cleaning system)</i>
Electrode cleaning parameters:	
- period of cleaning.....	from 10 sec to 4 hrs
- durability of cleaning.....	from 1 sec to 1 min
- Hold mode, timeout of measuring.....	from 1 sec to 1 min
pH and temperature set points adjustment range.....	within the full measuring range
Archiving interval	programmable from 1 sec to 5 min
Archiving time (period)	from 4.4 to 55 days

pH-meters > With active PT > pH-4110

Power supply voltage.....	~(100..240)V, (50..60)Hz
Power consumption.....	max 15 VA
Climatic version.....	T=(+5..+50)°C
Dust and water protection.....	IP65
Enclosure material.....	ABS plastic
Resistance to mechanical influences.....	N2
Weight.....	max 1,6kg

EXTERNAL WIRING



PT — primary transducer; MI — measuring instrument; M el — measuring electrode; A el — auxiliary electrode; G el — grounding electrode (if holder not present); Rt — temperature sensor; Ao1, Ao2 — analog output (current).

Figure 1. Connecting the input circuits to the primary transducer and primary transducer to the measuring instrument

OVERALL AND MOUNTING DIMENSIONS

The overall and mounting dimensions of the PT are given in the description of pH-4101
 The overall and mounting dimensions of the measuring device are given in the description of pH-4122

ORDER REFERENCE CODE

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

ACCESSORIES

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