

PH / ORP TRANSMITTER Serie PHT

- ◆ Low cost
- ◆ 4 design variants
- ◆ High input impedance – over $10^{13} \Omega$
- ◆ Standard current or voltage output signal
- ◆ Automatic temperature compensation

The PHT transmitter converts the high impedance voltage output of pH or REDOX (ORP) probes into standard current or voltage signal that can be safely sent over longer distances. The transmitter provides the necessary for the normal pH/ORP probe's operation high input impedance as well as temperature compensation of pH measurement through a Pt100 temperature sensor connected to the second transmitter input. Four variants are available differing by power supply, output signal, type of mounting, and protection class. The PHT transmitter is applicable in all cases in which there is a need for measuring pH or ORP and the measurement signal has to be sent over relatively long distance from the point of measurement.



Technical specifications

Input

Input range:	
- pH	0...14 pH or 2...12 pH ⁽¹⁾
- ORP	-2000...+2000 mV
Temperature compensation input	external Pt100, 0...100 °C
Input impedance	> $10^{13} \Omega$
Input capacitance	0.5 pF

⁽¹⁾ Specify when ordering!

⁽²⁾ Up to 95% RH for variant '100'

Accuracy

Measurement error	< ± 0.05% from span
Temperature drift	0.005% from span for 1 °C
Operating conditions	
Operating temperature	0...60 °C
Operating humidity	10...85 %RH ⁽²⁾
Storage temperature	-10...70 °C
Storage humidity	0...95 %RH

Variant	10	30	50	100
Specifications				
Output	2-wire 4...20 mA	2-wire 4...20 mA	2-wire 4...20 mA	0(4)...20 mA, 0...2 V, or on request
Power supply	8...30 VDC ⁽³⁾	8...30 VDC ⁽³⁾	8...30 VDC ⁽³⁾	230 VAC or 115 VAC
Protection	IP20	IP44 (except BNC connector)	IP65 (except BNC connector)	IP56 (except BNC connector)
Housing	plastic	plastic	aluminum	plastic
Dimensions	ø43x30 mm	90x90x40 mm	80x46x32 mm	108x108x60 mm
Weight	30 g	120 g	150 g	280 g
Mounting	in head type "B" ⁽⁴⁾	on wall ⁽⁴⁾	on wall	on wall
Wiring	exposed screw terminals	hidden screw terminals or BNC connector	hidden screw terminals or BNC connector	hidden screw terminals or BNC connector

⁽³⁾ 12...32 VDC with ORP input

⁽⁴⁾ May be mounted on rail by a special snap-on accessory, which is ordered separately (see 'Accessories')

Ordering code PHT★ - G6.G11 - #1.#2

Code	Feature or option	Code values
*	Variant	10 - tablet, 30 - in IP44 plastic box, 50 - with IP65 metal enclosure, 100 - for mains power supply
G6	Input	DN - pH, DO - ORP
G11	Output signal ⁽⁵⁾	E - 0...20 mA, F - 4...20 mA, H - 0...2 V, Z - other (specify!)
#1	Probe connection	X - screw terminals, B - BNC connector ⁽⁶⁾
#2	Two-electrode input ⁽⁷⁾	X - none, D - input from probe with a separate reference electrode

⁽⁵⁾ Applicable for the selected variant

⁽⁶⁾ Not available for variant '10'

⁽⁷⁾ ONLY for variant '100'

