

pH/ORP Transmitter 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 or Pt1000 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

Inputs

pH/ORP input	0...14 pH, 2...12 pH, -1...+1 V, -2...+2 V
Input impedance	$> 10^{13} \Omega$
Input capacitance	0.5 pF
Temperature compensation input ⁽¹⁾	external Pt100 or Pt1000, 0...100 °C

Accuracy

Measurement error	$< \pm 0.2\%$ from span
Temperature drift	0.005% from span for 1 °C
Operating conditions	
Ambient temperature	0...60 °C
Ambient humidity	10...85 %RH
Storage temperature	-10...70 °C
Storage humidity	0...95 %RH

⁽¹⁾ Only with pH input

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 ⁽²⁾	8...30 VDC ⁽²⁾	8...30 VDC ⁽²⁾	230 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	46x80x32 mm	108x108x60 mm
Weight	30 g	120 g	150 g	280 g
Mounting	in head type "B" ⁽³⁾	on wall ⁽³⁾	on wall	on wall
Probe connection	exposed screw terminals	hidden screw terminals or BNC connector	hidden screw terminals or BNC connector	hidden screw terminals or BNC connector

⁽²⁾ 12...32 VDC with ORP input

⁽³⁾ May be mounted on rail by a special snap-on accessory, which is ordered separately (see 'Accessories')

Ordering code PHT* - G6'6"G6'6".G11'11".G12

Code	Feature or option	Code values
*	Variant	10 - tablet, 30 - in IP44 plastic box, 50 - with IP65 metal enclosure, 100 - for mains power supply
G6'6"	Input	pH/ORP DN - pH, DO - ORP
	temperature ⁽¹⁾	BD - Pt100, BG - Pt1000
G11'	Output signal ⁽⁴⁾	E - 0...20 mA, F - 4...20 mA, H - 0...2 V, Z - other (specify!)
G11"	Transmission range	(RANGE) (see table above)
G12	Probe connection ⁽⁵⁾	X - screw terminals, B - BNC connector

⁽⁴⁾ Applicable for the selected variant

⁽⁵⁾ Do not code for variant '10'