

## Specifications

Input Impedance	> 10 <sup>13</sup> Ω
Measurement Range (pH <sub>min</sub> ...pH <sub>max</sub> )	<input type="checkbox"/> 0...14 pH, <input type="checkbox"/> 2...12 pH, <input type="checkbox"/> -2000...+2000 mV
Temperature Compensation Range	0...100 °C
Temperature Compensation Sensor	<input type="checkbox"/> Pt100, <input type="checkbox"/> Pt1000, <input type="checkbox"/> .....
Output	4...20 mA, 2-wire
Power Supply	<input type="checkbox"/> 8...30 VDC, <input type="checkbox"/> 12...30 VDC
Maximum Line Load	<input type="checkbox"/> (U-7.5)/20 [kΩ], <input type="checkbox"/> (U-11.5)/20 [kΩ]
Measurement Error	< ± 0.05% from span
Temperature Drift	0.005% from span for 1 °C
Ambient Temperature / Humidity	0...60 °C / 10...85% RH
EM Compatibility	according to EN 61326
Protection Class	IP65 (except BNC connector)

v1-06.09

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## pH/ORP TRANSMITTER

# BPHT50

### OPERATION MANUAL

## Warranty and Support

.....  
*serial number*

.....  
*manufacturing date*

QC check mark .....(passed)  
*(stamp)*

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### Warranty

BASI Instrument AB warrants this product to be free from defects in materials and workmanship for 2 years. If your unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see '**Specifications**').

### Technical support

In the unlikely event that you encounter a problem with your BASI device, please call your local dealer or contact directly our support team.

QD-8.2.4-WC



Please read this Operation Manual before mounting and operating!  
Save the Manual for future references!

## Overview

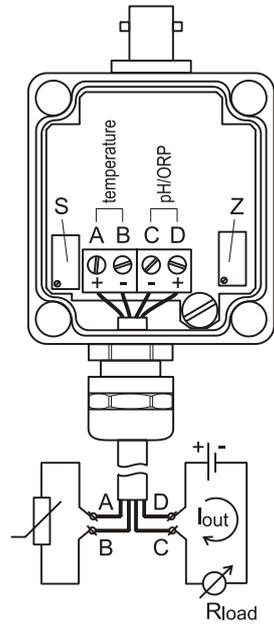


### Important note:

*BPHT50 is designed to operate ONLY with pH/ORP probes with combined electrodes!*

The BPHT50 transmitter converts the high impedance voltage output of pH or REDOX (ORP) probes into standard current 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 by the means of a temperature sensor connected to the second transmitter input.

## Wiring



- ◆ Connect the pH/ORP probe to the BPHT50 transmitter through its BNC connector.
- ◆ Take the cover of the electronic block off and run a cable with carefully considered outer diameter through the cable gland.
- ◆ Observing the polarity, connect the wires as shown on the left diagram.
- ◆ Close the box.



### Important notes:

- ◆ To wire the pH/ORP probe, use **ONLY** coaxial shielded pH cable no longer than 1.5 m.
- ◆ If no temperature compensation is needed, connect a suitable external resistor (e.g. 109.73 Ω for simulating 25 °C) to terminals 'A' and 'B'.
- ◆ Keep the BNC connector area **DRY AND CLEAN** in order to assure high input impedance!!!

## Mounting

- ◆ Unscrew the two diagonally placed screws and take off the electronic block cover.
- ◆ Attach the body to a wall by 2 screws via the openings of the other diagonal.
- ◆ Put the cover back and tighten up the screws.

## Operating

- ◆ Check the loop power supply voltage (see '**Specifications**').
- ◆ Turn the power on.
- ◆ The transmitter must generate a current output according to the calculation:

$$I_{\text{out}} = 4 + \frac{16 \cdot \text{pH}}{\text{pH}_{\text{max}} - \text{pH}_{\text{min}}} \text{ [mA]},$$

where pH is within the measurement range (see '**Specifications**').

- ◆ If necessary, adjust the ZERO of the transmitter with the 'Z' trimmer and/or its SPAN – with the 'S' trimmer.

## Waste Disposal



*Do not dispose of electronic devices together with household waste material!*

If disposed of within European Union, this product should be treated and recycled in accordance with the laws of your jurisdiction implementing the WEEE Directive 2002/96 on the Waste Electrical and Electronic Equipment.