

## Laboratory pH controller

# LpHdTrans01

- comfortably and the simplest manipulation
- high announcement and sensibility
- automatic temperature compensation
- reasonable and space-saving



### Lab-pH-Regulator LPHdTrans01 with microprocessor controller

The Lab-pH- and temperature controller LPHdTrans01 is a device for registering of pH-values 0,00 - 14 pH with automatic temperature compensation by Pt 100 resistance thermometers.

It has 1, optional 2 control outputs (230V/3A AC with a protective contact socket) for the pH-compensation for the connection of commercial single solenoid valves or dosage pumps and so an automatic compensation of the pH-value by pulse-frequency or pulse length regulation.

Further is optional a constant output (0/4...20 mA) practicable to control corresponding lab pumps.

All pH sensors and combination sensors with the corresponding cable connection are connectable. This cable must have a device-sided BNC plug; on the acceptor side a plug fitting to the acceptor must be attached. The electrode slope is programable.

A high-quality cable should be used to make possible a very exact and undisturbed measurement.

Juchheim-electrodes have a N-connection in series.

The device has also an integrated temperature regulator in order to supervise and switch a heating or a single solenoid valve. It is to be created to make constant conditions at the pH-measuring probe. The temperature regulator disposes of a selfoptimization function.

The temperature compensation of the pH controller and the temperature control work independently of each other, therefore 2 pieces Pt 100 resistance-thermometers or 1 piece 2x Pt 100 resistance-thermometer must be connected to make the operation possible. The connection is made by a 7-pole Tüchel plug. By connection of 2 pieces 1x Pt100 an adapter is required.

Juchheim-Pt 100 resistance-thermometers are available in a lot of housing and connection variants, e.g., with glass, high-grade steel, teflon-, PVC- or titanium housing and with firmly connected teflon-, silicone or PVC-leads or also with connection head from cast metal or PVC. Lengths and diameters are manufactured by your needs.

**Technical datas:**

<b>Type</b>	<b>LPHdTrans01</b>
<b>Housing</b>	Alu varnished, PVC back
<b>Dimensions L x H x D in mm</b>	105 x 165 x 122
<b>Weight in kg</b>	1,5
<b>Measuring range</b>	programmable
<b>Regulation range</b>	programmable, option: two outputs for automatic compensation of the pH-value
<b>Possible probes</b>	Pt 100 = -199,9 + 850,0°C, pH-electrodes, combination electrodes, slope is programmable
<b>Indicate actual value</b>	12 mm high, red
<b>Indicate rated value</b>	9 mm high, green
<b>PID-control action</b>	P, PI, PD, PID and min. ON-time is programmable
<b>pH-regulation function</b>	Limit value, impulse-lengths, impulse-frequency, 3-point, constant regulator
<b>Calibration options</b>	1-point oder 2-point calibration, in each case with frozen or nonfrozen outputs
<b>Other operation procedures</b>	as a redox regulator programmable
<b>Indication exactness</b>	≤ 0,1%/50ppm/K Pt 100, pH deviation from characteristic ≤ 0,25% of measuring range, TC ≤ 0,15%/10K
<b>Temperature regulation exactness</b>	± 0,1°C with exact optimization attainable, selfoptimization possible
<b>Probe connection</b>	BNC, 7-pole Tuchel socket
<b>output relay</b>	3A / 230 V AC resistive load
<b>Outputs</b>	pH: 230 V/3A-regulation output with Schuko-socket (option constant regulation output (4 - 20 mA) Temp.: 230V/3A AC resistive load with Schuko-socket