



TpH

80S1000X0



Digital pH sensor TpH

TpH is a robust digital pH sensor for operation on TriBox controllers. Digital communication ensures safe and interference-free signal transmission from the sensor to the controller.

The high-quality gel pH electrode has a perforated diaphragm and is insensitive to dirt. This sensor is therefore well suited for wastewater applications.

Advantages

- High-quality combination electrode with perforated diaphragm and polymerised solid electrolyte
- Low maintenance requirements
- "Plug & play" with TriBox controllers
- Delay-free

Applications

- Waste water
- Coalgulation and flocculation
- Process monitoring and control
- Acid / base neutralization systems

Technical specifications

TpH

Measurement technology		pH electrode
Measuring principle		Potentiometry
Parameters		pH value, temperature
Measuring range	pH	0...14 pH
	Temperature	0...+65 °C
pH resolution	pH	0.01 pH
	Temperature	0,1 °C

Measuring accuracy	pH	± 0.06 pH	
	temperature	$\pm 0,5$ °C	
Intrinsic deviation	pH1	± 0.05 pH	
	pH7	± 0.05 pH	
	pH13	± 0.35 pH	
Linearity measurement error		± 0.1 pH	
Repeatability	pH1	± 0.1 pH	
	pH7	± 0.05 pH	
	pH13	± 0.1 pH	
Output signal fluctuation	pH7	± 0.025 pH	
	pH4	± 0.05 pH	
Warm-up time		< 5 min	
Drift	Short-term drift 24 h	≤ 0.03 pH	
	Long-term drift 1 week	≤ 0.05 pH	
10 % time and 90 % time	T10 increasing	< 2 s	
	T10 decreasing	< 2 s	
	T90 increasing	≤ 5 s	
	T90 waste decreasing	≤ 5 s	
Temperature compensation		Pt1000	
Measuring interval		2 s	
Housing material		PPS / PET / NBR	
Dimensions (L x Ø)		~ 180 x 27 mm	~ 7.1" x 1.1"
Weight		110 g	~ 0.2 lbs

Interface		RS-485, Modbus RTU	
Power consumption		0,2 W	
Power supply		12 - 24 VDC ($\pm 10\%$)	
Connection		8-pin M12 plug	
Sensor cable		2 m and 10 m	
Required supervision		Typically, ≤ 0.5 h/month	
Calibration / maintenance interval		Typically, 4 weeks	
System compatibility		Modbus RTU	
Warranty		1 year (EU & USA 2 years) on electronics; wearing parts are excluded from the warranty	
Max. pressure	with fixed cable	3 bar	~ 43.5 psi
	in FlowCell	1 bar, 2...4 L/min	~ 14.5 psi, 0.5 to 1 gpm
Degree of protection		IP68	NEMA 6P
Sample temperature		+2...+40 °C	~ +36 to +104 °F
Ambient temperature		+5...+55 °C	~ +23 to +131 °F
Storage temperature		0...+80 °C	~ +32 to +176 °F
Inflow velocity		0...3 m/second	~ 0...10 fps