

pH Sensor Digital TpH

80S100000 · 80S100010



Robust digital pH sensor for operation on TriBox controllers and HS100 DIN G2 rail module. Digital communication ensures safe and trouble-free signal transmission from the sensor to the controller. The high-quality gel pH electrode has a hole diaphragm and is insensitive to dirt, making the sensor ideal for wastewater applications.

Benefits

- High-quality combination electrode with hole diaphragm and polymerised solid electrolyte
- Low maintenance
- Plug and play with TriBox controller

Applications

- Water and wastewater treatment
- Coagulation and flocculation
- Process monitoring and control
- Acid/base neutralization systems

Accessories

- Cable: Extension cables of 0.3 m, 2 m, 10 m, 25 m
- Controller: TriBox3, TriBox Mini, HS100
- Fittings: FlowCell

Technical Specifications

Measurement technology		pH electrode
Measurement principle		Potentiometry
Parameter		pH value, temperature
measuring range	pH	0...14 pH
	Temperature	0...+65 °C
resolution	pH	0.01 pH
	Temperature	0.1 °C
precision	pH	± 0,06 pH
	Temperature	± 0.5 °C
Intrinsic error	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 ascending	< 2 s	
	T10 falling	< 2 s	
	T90 ascending	≤ 5 s	
	T90 falling	≤ 5 s	
Temperature compensation		Pt1000	
Measurement 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 (± 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: 2 years) on electronics; wearing parts are excluded from the warranty	
Max. pressure	with fixed cable	3 bar	~ 43.5 psig
	in flow cell	1 bar, 2...4 L/min	~ 14.5 psig, 0.5 to 1 gpm
Protection type		IP68	NEMA 6P
Sample temperature		+2...+40 °C	~ +36 °F to +104 °F
Ambient temperature		-5...+55 °C	~ +23 °F to +131 °F
Storage temperature		0...+80 °C	~ +32 °F to +176 °F
Inflow velocity		0...3 m/second	~ 0...10 fps