

MP-Mono Monochloramine & Free Chlorine Sensor

A new flow independent sensor technology for monochloramine and free chlorine.

Overview

The Halogen MP-Mono (AKA MP-6) sensor sets a new standard that measures four parameters and amperometric chlorine without membranes or reagents. The MP-Mono does not require a waste stream and can be used in many installation and monitoring configurations, and is unaffected by flow or pressure.

Features and benefits

- Monochloramine (will not measure dichloramine and trichloramine)
- Free chlorine (No monochloramine interference)
- pH
- Conductivity
- Temperature
- Flow independent: can be installed directly in a pipe
- Self-cleaning
- Typical 6+ months of unattended operation
- No reagents or membrane
- NSF-61 certified for drinking water contact
- No waste stream (possible savings of up to 70,000 gallons of water per year)
- Battery powered options

Patent Pending



Options

Installation:

Immersed directly in a tank, in a pipe PVC Tee, Wet Tap, or side stream (flow cell)

Communication:

The sensor communicates via:

- Modbus RTU.

Display





The D20™ display/controller



4-20 mA SCADA PLC

See accessories page

Technical Specifications

Overall	
Measurement method	Reagentless, three electrodes, no membrane or electrolyte
Measurement range	
- Limit of detection (LOD)	0.03 ppm Free and Monochloramine
- Monochloramine	0 to 10 ppm
- Free Chlorine	0 to 10 ppm
Resolution	0.001 ppm (1 ppb)
Accuracy	
Monochloramine 5 to 40°C	0 to 5 ppm NH_2Cl $\pm 7\%$ or ± 0.06 ppm, whichever is greater
Monochloramine 5 to 40°C	>5 to 10 ppm NH_2Cl $\pm 12\%$
Monochloramine 41 to 55°C	$\pm 10\%$ or ± 0.06 ppm, whichever is greater
Free Chlorine	0 to 2 ppm Free Chlorine $\pm 10\%$ or 0.06 ppm (whichever is greater)
	>2 to 10 ppm Free Chlorine $\pm 15\%$
Turbidity in the sample without impact	No effect up to 3000 ppm (Arizona test dust fine, 50-micron size)
Calibration stability	6 months (typ)
Measurement interval	120 seconds
pH range (chlorine)	6.0 to 9.35 (Free) 10.0 (Mono)
Conductivity	50 to 5,000 μS
Pressure limit	10 bar (145 psi)
Temperature	5 to 55°C (41° – 131°F)
Sample Compensation	Automatic
Factory calibration performed	Yes
Power consumption	24VDC $\pm 10\%$ at 50mA 200 mA startup maximum
Data transfer	Through controller or PLC via Modbus RTU
Certifications	CE-compliant for conducted and radiated emissions: <ul style="list-style-type: none"> - CISPOR 11 (Class A limits) Limit of detection (LOD) - EMC immunity EN 61326-1 (industrial limits) NSF61/372 Certified (by ALS Labs) Multiparameter Chlorine Sensor
MP-Mono Models	D-H1LF-P6, D-H1MF-P6, D-H1WT-P6

MP-Mono Models and options		Item picture	As installed
D-H1WT-P6	Wet Tap Sensor (for use with RMR-WT)		
D-H1LF-P6	Immersion or Side Stream (order with FC - 02 Flow Cell Kit)		

MP-Mono Models and options		Item picture	As installed
D-H1MF-P6	PVC TEE Sensor (for use with PT-01)		

Note: Reagent Feed Monochloramine analyzers do not list accuracy as Cl₂ but as N. Halogen’s accuracy specs are as Cl₂ or as NH₂Cl hence they do not correlate directly to competitor’s Monochloramine accuracy numbers