

## Halogen MP5-A Multiparameter Sensor

### Overview

The Halogen MP5-A sensor sets a new standard that measures five parameters and amperometric chlorine without membranes or reagents. The MP5-A does not require a waste stream and can be used in many installation and monitoring configurations, unaffected by flow or pressure. EPA Method 334.0 compliant, the MP5-A sensor can be used for reporting chlorine residual measurements.

### Features and Benefits

- The latest sensor technology offered by Halogen Systems
- Measures:
  - Free chlorine
  - pH
  - Conductivity
  - Temperature
  - Oxidation-reduction potential (ORP)
- Flow independent: can be installed directly in a pipe
- Self-cleaning
- Typical 6+ months of unattended operation
- No reagents or membrane
- NSF61 certified for drinking water contact
- New cellular communication with data accessibility via the cloud
- No waste stream (possible savings of up to 70,000 gallons of water per year)
- Battery power options

### Options



### Compliance

EPA 334.0 can be used for reporting chlorine residual measurements

### Installation:

Immersed directly in a tank, distribution line, or side stream

### Communication:

The sensor communicates via:

- Modbus RTU
- D20™ display/controller or SCADA PLC
- Remote access and monitoring with the cloud-based connectivity option



## Self-cleaning flow-independent system

- A long-lasting pump for steady flow over its electrodes.
- It works well in pipes where flow changes or stops.
- It has beads that clean the electrodes and pH glass automatically.
- This means it needs less maintenance and can handle harsh conditions.



## Technical Specifications

Overall*	
Measurement method	Reagent less, three electrodes, no membrane or electrolyte
Chlorine measurement range	0 to 20 ppm
- Limit of detection (LOD)	10 ppb (0.01 ppm)
- Limit of quantitation (LOQ)	40 ppb (0.04 ppm)
Resolution	0.001 ppm (1 ppb)
Chlorine accuracy <sup>1</sup>	±5% of the calibrated value1 (DPD) at any pH between 6.5 and 8.75 ±5% of the calibrated value1 (DPD) at any temperature between 15° and 35°C ±4% of the calibrated value1 (DPD) at any conductivity between 200 and 10,000 µS
Calibration stability	6 months (typical)
Measurement interval	60 seconds
pH range (chlorine)	6.5 to 9.3
Conductivity	50 to 10000 µS
Pressure limit	10 bar (145 psi)
Temperature	1 to 55°C
Sample Compensation	Automatic
Factory calibration performed	Yes
Power consumption	24VDC ±10% at 50mA 200 mA startup maximum
Data transfer	Through controller or PLC
Ambient data*	
Storage temperature	-20 to 60°C (-4 to 140°F)
- Operating temperature	1 to 55°C (33 to 131°F)
Maximum flow velocity	0 to 4 meters/sec velocity
Cleaning method	Continuous mechanical cleaning, electrochemical cleaning
Certifications	CE-compliant for conducted and radiated emissions: - 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
MP5 Models	D-H1LF-P, D-H1MF-P, D-H1WT-P