

MULTIPARAMETER CHLORINE SENSOR

A breakthrough for drinking water and wastewater testing, The **Halogen MP5™** Multiple Parameter Sensor tests 5 parameters using 3 electrode amperometric chlorine measurement. The MP5™ is unaffected by flow or pressure, is self cleaning, automatically compensates for pH, and is NSF61 certified. It is also highly accurate, requires little to no maintenance, can be installed in a flow cell, directly in a pipe, or immersed in a tank, channel, or basin. Simple to install and inexpensive to operate, the Halogen MP5™ is unlike any other sensor on the market today.

UNIQUE FEATURES

The **Halogen MP5™** is unique in the market.

- Self-cleaning & low maintenance
- No reagents
- Flow independent - insensitive to changing process conditions
- No membranes or electrolyte
- No waste stream required
- Low drift- calibration stable for many months
- Factory calibrated, minimal drift

INSTALLATION ADVANTAGES:

Compared to typical solutions, the Halogen MP5™ has many advantages when deployed:

- Easy to install
- Installed directly into a wet tap valve, side stream, or submersible
- Remote mounting of more than 100 feet or more from display
- System is equipped with 4 20mA or MODBUS RTU. Other communication protocols are available upon request.
- 24 VDC or 90 to 240 VAC operation

LOW TOTAL COST OF OWNERSHIP

Halogen's **MP5™** saves additional money over time due to:

- Low Maintenance Cost
- No membranes, reagents, or electrolyte
- Long calibration intervals
- Easy calibration if needed

** **Rapid Response ORP™**: Halogen's unique implementation of Oxidation Reduction Potential (ORP) measuring is self-cleaning and highly resistant to poisoning. Unlike other discrete ORP sensors, the MP5™ retains ORP calibration even in demanding and/or dirty applications.*

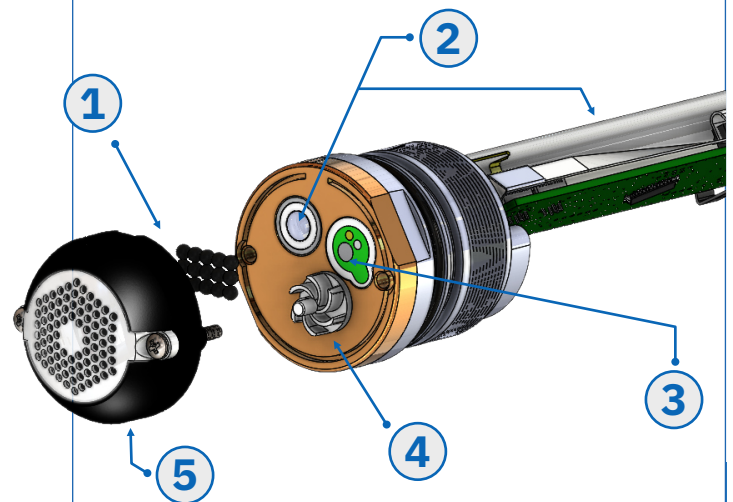
MEASUREMENTS

The **MP5™** measures vital information in a reliable and low cost manner.

- Free or Total Chlorine
- Conductivity
- pH
- Rapid Response ORP*
- Temperature

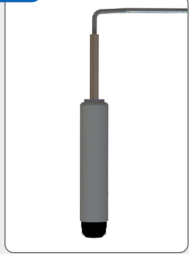




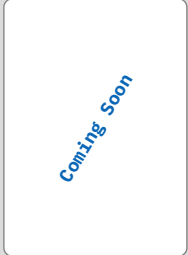






FIGURE 1: HALOGEN SYSTEMS MP5™ MAIN FEATURES



1. The **SensiCLÈNE™** self-cleaning system reduces maintenance through an always-on cleaning method.
2. **DryGLAS™** technology ensures robust operation even if the line goes totally dry. 3. The **MP5™** constantly samples 5 parameters using a 3 electrode amperometric technology, and is unaffected by flow, pressure, or temperature. 4. HSI's patented impeller system removes flowrate as an issue.
5. HSI's patented sensor system allows for wet-tap, side-stream, immersion and direct pipe insertion, eliminating the need for waste stream membranes, reagents, & electrolyte, while greatly reducing calibration & maintenance.

MODELS & OPTIONS

Sensor Models (D & W) "D" = Drinking Water "W" = Wastewater	Wet Tap  D-H1NF-P / W-H1NF-P Direct Pipe Insertion: Unaffected by variable flow-rates, it can accurately monitor 5 parameters in real-time at flows from 0-4m/s & up to 145 PSI	Immersion/Sidestream  D-H1LF-P / W-H1LF-P Sidestream or Immersion installations. 1" PVC Boom Mount (Flow Cell Shown)	Pipe Tee  D-H1MF-P / W-H1MF-P Specifically designed for PVC tee installs. Requires 2" PVC Tee and Adapter: PT-01	
	Kits and Extras  Removal tool: for Wet Tap sensors. RMR-WT	 Flow-cell Kit: FC-01	 Coming Soon Cellular Modem Remote Monitoring w/ optional Solar power kit	
	Display Transmitter  CN-01 Display 2 Outputs (2) 4-20 mA Outputs, 120V Input power (cord) M-12 connector	 CN-04 Display 4 Outputs (4) 4-20 mA Outputs, 120V Input power (cord) M-12 connector	 D01 Display 2 Outputs (2) 4-20 mA Outputs, 24VDC Input Power	 D01-4 Display 4 Outputs (4) 4-20 mA Outputs, 24VDC Input Power

Measurement Specifications	Range
Accuracy	±15% of the reference test. Drift: < 1% (calibration checks quarterly or longer depending on the application.) Sensors are factory calibrated.
Measurement range	0 to 20 ppm chlorine (total), 0-5 ppm (free)
Free or Total Chlorine	<ul style="list-style-type: none"> • Low Limit of Detection (LOD): 30 ppb (0.03 ppm) or better • Limit of Quantitation (LOQ): 110 ppb (0.11 ppm) or better • Repeatability/precision (80%): 40 ppb or 3%, whichever is greater. • Response time: 112 seconds • Cycle time: <50 seconds • Interference: Monochloramine, Chlorine Dioxide, Ozone, and chalk deposits
Oxidation Reduction Potential (ORP)*	0 to 1100 mV* (See footnote on previous page for additional information about RapidResponse ORP™)
Conductivity	300 to 50,000 µS
pH	5 to 12
Temperature	0 to 100° C
Communication	Modbus RTU, 4-20 mA Outputs

