

## MULTIPARAMETER CHLORINE SENSOR

A breakthrough for drinking water and wastewater testing, Halogen's **HaloMP5™** Multiple Parameter Sensor tests 5 parameters using 3 electrode amperometric chlorine measurement. The HaloMP5™ 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 in-situ into a tank, channel, or basin. Simple to install and inexpensive to operate, the Halogen HaloMP5™ is unlike any other sensor on the market today.

### UNIQUE FEATURES

The **HaloMP5™** 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 HaloMP5 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 monitor or SCADA input
- Connect to up 5 sensors to a single display
- System is equipped with 4 20mA or MODBUS RTU. Other communication protocols are available upon request.
- 24VDC or 90 to 240 VAC operation

### LOW TOTAL COST OF OWNERSHIP

The **HaloMP5™** saves additional money over time due to:

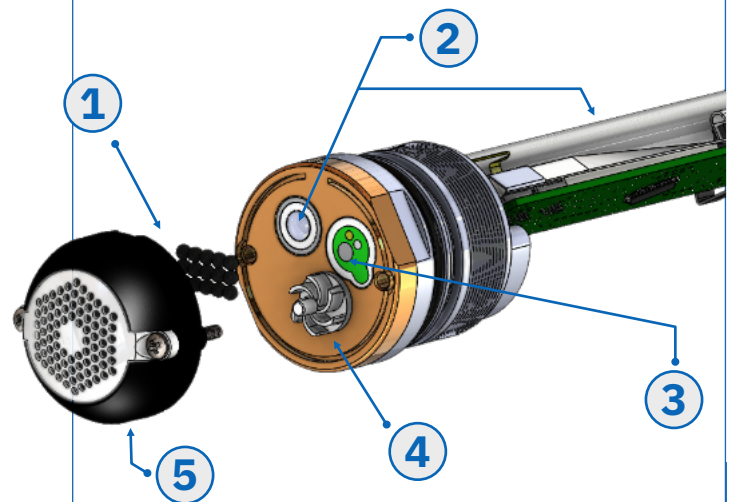
- Low Maintenance Cost
- No membranes, reagents, or electrolyte
- Long calibration intervals
- Easy calibration if needed

### MEASUREMENTS

The **HaloMP5™** measures vital information in a reliable and low cost manner.








- Free or Total Chlorine
- Conductivity
- pH
- ORP
- Temperature

**FIGURE 1: HaloMP5™ 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 **HaloMP5™** 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

	Wet Tap	Immersion/Sidestream	Pipe Tee
<b>Sensor Models</b>	 Wet Tap sensor for in-pipe installations Use with Wet Tap Valve (not supplied) and remover kit (below) <b>WT-01</b>	 Sidestream or Immersion installations (Flow Cell Shown) <b>FC-02</b>	 Specifically designed for PVC tee installs <b>PT-01</b>
<b>Kits and Extras</b>	 Flow-cell Kit: Converts FC-01 to FC-02 <b>FC-0</b>	 Removal tool: for Wet Tap sensors. <b>RMR-01</b>	
<b>Display Transmitter</b>	 2) 4-20 mA Outputs; 24 VDC Input Modbus RTU Output <b>D01</b>		 4) 4-20 mA Outputs; 24 VDC Input Modbus RTU Output <b>D01-4</b>

**TABLE 3: HaloMP5™ SENSOR RANGE AND ACCURACY**

Measurement Specifications	Range
<b>Chlorine Total</b>	0.03 to 20 PPM ±15% or 0.06 ppm, whichever is greater
<b>Chlorine Free (-F suffix)</b>	0.03 to 8 PPM ±15% or 0.06 ppm, whichever is greater
<b>Oxidation Reduction Potential (ORP)</b>	-1100 to 1100 mV
<b>Conductivity</b>	300 to 50,000 µS
<b>pH</b>	5 to 12
<b>Temperature</b>	0 to 100° C
<b>Cycle time (depends on selected measurements)</b>	45-55 seconds
<b>Communication</b>	Modbus RTU