

Non-Membrane Disinfection Sensors

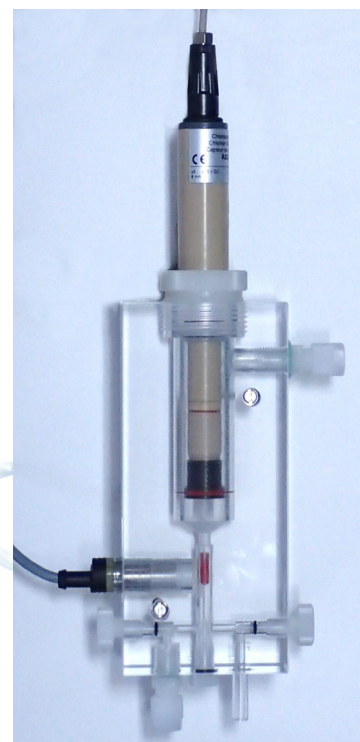
Non-Membrane Disinfection Sensors

Walchem's amperometric disinfection sensors offer a cost effective and reliable solution to your disinfection control requirements. Compatible with the W100, W600 and W900 series controllers, the sensors continuously and directly measure the Chlorine or Chlorine Dioxide chemical concentration, without the use of reagents.

These sensors may be used in any water with qualities similar to those of drinking water; that is, clean water at near neutral pH, especially at higher pressures and/or higher temperatures. Whether the application is a cooling tower, food and beverage, drinking water, wastewater, or swimming pool, these sensors may be the ideal solution.

Summary of Key Benefits

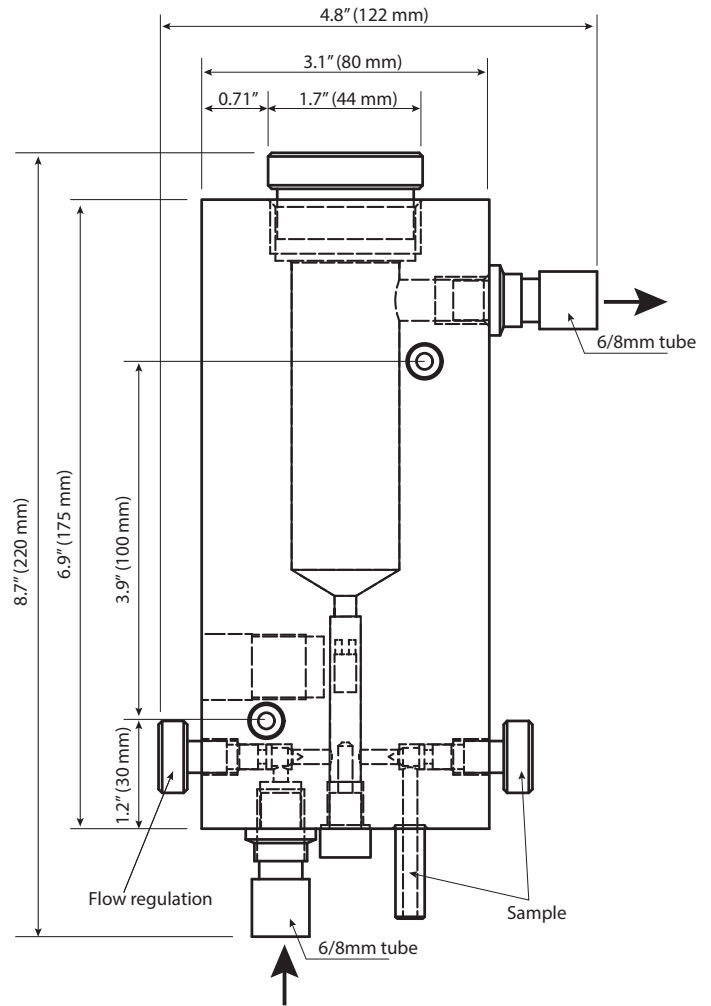
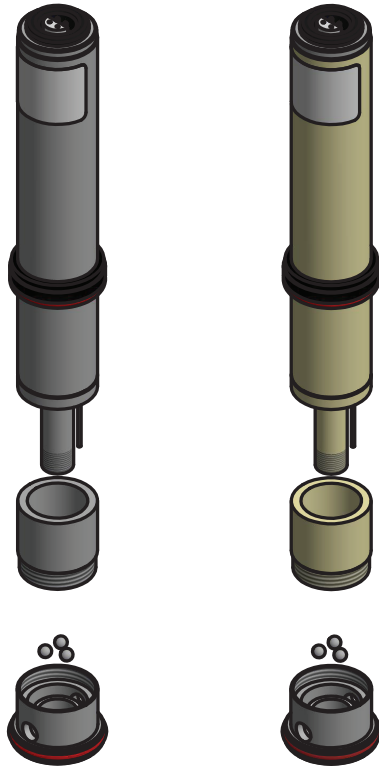
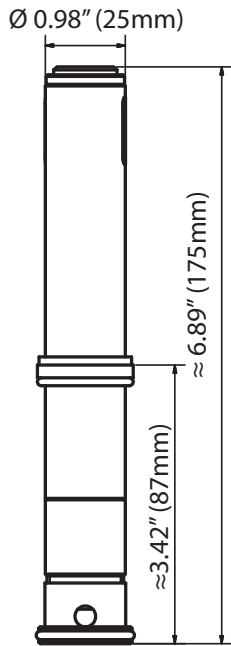
- Low maintenance - no costly reagents or tubing to replace
- Broad range of applications - high pressure and temperature ratings*
- Fast response - continuous measurement technique
- No waste - the sample can be returned to the process



| | Free Chlorine PVC | Free Chlorine PEEK | Chlorine Dioxide PVC | Chlorine Dioxide PEEK |
|------------------------------|--|---------------------|--|-----------------------|
| Range (W100, W600, W900) | 0.03 - 20 mg/l (reduce the range by a factor of 3 if using the optional cleaning attachment) | | | |
| Range (WebMaster) | 0.03 - 8 mg/l (reduce the range by a factor of 3 if using the optional cleaning attachment) | | | |
| Resolution | 0.01 mg/l | | | |
| Sensitivity | NaOCl, Ca(OCl ₂), Cl ₂ O ₃ (900%), ClO ₂ (400%), ClO ₂ - detected | | ClO ₂ Cl ₂ , ClO ₂ - <2% detection | |
| Flow rate of sample | 20 -100 liters/hour (constant, 80 l/hr. optimum if using the optional cleaning attachment, 50 l/hr. without) | | | |
| pH range of sample | pH 5.00 - 9.00 (pH must be stable within ±0.10) | | pH 1.00 - 12.00 | |
| Conductivity range of sample | No Limit | | | |
| Response time | 30 seconds | | | |
| Conditioning time | 1 hour - 2 days depending on water quality | | | |
| Operating pressure | 0-8 bar (0-116 psi) – 104033 flow cell, 0-4 bar (0-58 psi) – 192011 flow cell | | | |
| Operating temperature | 0 - 50°C (32-122°F) | 0 - 70°C (32-158°F) | 0 - 50°C (32-122°F) | 0 - 70°C (32-158°F) |
| Storage | Frost protected, dry and without electrolyte - no limit | | | |
| Flow cell connectors | 6mm ID x 8 mm OD tubing fittings in 1/4" straight threaded holes | | | |
| Power requirements | ±5 VDC, 5 mA | | | |
| Signal | 0 to -2000 mV DC | | | |
| Maximum cable length | 30 meters (100 feet) | | | |
| Extension cable | 4 conductor 24 AWG shielded (Walchem 100084) | | | |
| Materials of Construction | | | | |
| Sensor | PVC-U | PEEK | PVC-U | PEEK |
| Flow cell | PMMA and Natural PVDF (104033) or PVC (192011) | | | |
| Mounting rings | PETP, FKM, Silicone and Natural PVDF (104033) or PVC (192011) | | | |
| Optional cleaning cap | PVDF, Acrylic (PMMA), Silicone, Ceramic balls | | | |
| Optional flow switch | Switch: Stainless Steel, Polyester (not wetted) Float: PEEK, Epoxy | | | |

* Refer to the General Guidelines document for using Chlorine/Bromine Sensors at Walchem.com

Dimensions



Ordering Information

| | |
|-----------|---|
| 104030 | Sensor, Cl ₂ , PEEK, Non-Membrane |
| 104037 | Sensor, Cl ₂ , PVC, Non-Membrane |
| 103939 | Sensor, ClO ₂ , PEEK, Non-Membrane |
| 104038 | Sensor, ClO ₂ , PVC, Non-Membrane |
| 103940 | Cleaning Kit |
| 104039 | Electrolyte |
| 104040 | Emery Paper |
| 104033 | Acrylic flow cell, 70 °C |
| 104034 | Flow Switch, Acrylic Flow Cell |
| 191655-03 | Cable, W100/600/900, Disinfection, 3 Ft. |
| 191655-20 | Cable, W100/600/900, Disinfection, 20 Ft. |
| 192011 | Acrylic flow cell, 45 °C |

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