



# AquaVolt+

## Precision Moisture Analyzer

Industrial Gas

Electronic Gas

Natural Gas

Medical & Aviation

Aerospace & Military

Glove Box

Specialty Gases

Reliable and longstanding staple of the high purity gas industry, the **AquaVolt+** provides accurate, calibration-free technology for trace moisture analysis to very low ppbV. It excels across a range of applications, among them:

- Semiconductor manufacturing
- Refrigerant gases, such as  $C_3H_2F_6$ ,  $CF_4$ ,  $CH_2F_2$ , and  $CH_3F$ , among others, used to etch polysilicon and for Chemical Mechanical Planarization (CMP)
- Specialty gas applications, including Silane used for wafer deposition and more
- Hexafluoroethane ( $C_2F_6$ ) for semiconductor tool chamber cleaning, removal of silicon dioxide from silicon wafers, and plasma etch
- Government research and industrial laboratories. **Example:** DNA research for drug development and genetic therapies
- Shielding gases for orbital welding
- Aerospace and military
- Helium and Nitrogen Gases: ~ 0.5 to 1 ppmV for tube trailer moisture verification
- Pressure Swing Adsorbers (PSAs) used in Helium Recovery
- Mobile cart applications

**Well thought out features save space, ease operation, and boost confidence, including:**

- ❑ **Compact, flexible footprint:** Two analyzers can fit neatly into ONE 19" RACK!
- ❑ **Ease of Use:** User-friendly keypad interface, bright vacuum fluorescent display (VFD) and helpful menu-driven prompts make it simple to specify, to configure, and to start up for your specific application.
- ❑ **Flash upgradable software:** Easily upgrade unit software via RS232 port.
- ❑ **Adjustable outputs:** Flexibility to change output scales in the field. No need to replace electronic components or open the analyzer. Simply open the menu via Mode/Enter key and select Output scale.
- ❑ **Mass Flow Control:** Select your sample gas from the main menu and the microprocessor automatically adjusts the mass flow controller to the proper set point.
- ❑ **On-line verification:** Conveniently verify proper cell operation using simple Delta Flow procedure to check sensor linearity and performance on-line.
- ❑ **Consistency and precision:** The reliability and accuracy of MEECO's time-proven electrolytic sensors are unique among its peers. When you have been doing something since the early 1950's, you approach perfection...

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## Specifications:

|   |  |
|---|--|
| Detection Limit (LDL):                      | 35 ppbV  |
| Operating Range (for inert gases):          | 0-20 ppmV; for Oxygen, the range is 0-12 ppmV  |
| Accuracy:                                   | ±5% of reading or 0.4 ppmV, whichever is greater<br>In Oxygen: ±20% of reading or 100 ppbV, whichever is greater.  |
| Cell type (P <sub>2</sub> O <sub>5</sub> ): | AILR, AOLR, AHLR   |
| Gas Matrices Library:                       | Inert gases, Oxygen, Hydrogen, Clean Dry Air (CDA), Methane, Ethane, Propane, Normal Butane, Isobutane, Carbon, and others, including gas mixtures. For other gases, please consult factory.<br><br>*For Oxygen (mixtures) AOLR cell is required, for Hydrogen (mixtures) AHLR cell is required. |
| Inlet Pressure:                             | 10-3000 psig (0.7 – 207 bar).  |
| Operating (Ambient) Conditions:             | 0°C to +60°C (32°F to +140°F), maximum 80% RH non-condensing   |
| Flow Rate:                                  | Cell: 100 sccm<br>Bypass 1000 sccm   |
| Display unit options:                       | ppmV, ppbV, °C or °F dewpoint  |
| Gas Connections:                            | Inlet: 1/4" VCR, Outlet: 1/8" compression. Bypass outlet 1/8" compression  |
| Signal Output:                              | Field Configurable Isolated 0-5 VDC or Isolated Current Output 4-20mA, 0-20mA, or 0-24 mA -- RS - 232 Communications – Standard  |
| Alarms:                                     | Two (2) user-adjustable moisture levels  |
| Electrical:                                 | 100 – 240 VAC, 50/60 Hz, 50 watts.   |
| User Interface:                             | 5-key Membrane Keypad. 2-line x 20-character Vacuum Fluorescent Display (VFD).   |
| Weight:                                     | 22 lbs. (10.0kg)   |
| Dimensions (H x W x D):                     | 7" x 8.19" x 14.66" (17.78 cm x 20.80 cm x 37.24 cm)   |
| Mounting                                    | Standalone (Optional: 19" Rack Mount (Size: 7"x 19" x 17" (17.8 cm x 20.3 cm x 35.6 cm))   |
| Approval:                                   | CE Mark  |

**Service with a Big Smile** 😊: The AquaVolt+ comes with a full two-year Certificate of Calibration. The cell can easily be replaced in the field, with no need to disconnect the unit from the sample stream! Also, spare cells now have a two-year storage life if kept in their sealed shipment bags.