

High purity deionized (DI) water is essential to an incredible number of products and services... from ultrapure water used in semiconductor manufacturing, to spot free rinsing of cars. Application specifications, as well as system service requirements, make water quality monitoring a must for both the end user and service provider.

The 414R-HP and 414R-K Resistivity Monitor-Controllers are designed for water systems employing mixed-bed DI, two bed DI, or distillation. They are the ideal specification for the OEM, Engineer, or Service Dealer.

Featuring advanced temperature compensation and microprocessor based circuitry, the 414R provides high accuracy at a reasonable cost. Two models are available, the -HP for mixed-bed applications, the -K for two-bed systems. Both models utilize 2 range autoranging for increased precision, whether the water is 18 megohm or 15 kilohm.

Temperature may be momentarily displayed in °C and °F. Large  $\frac{1}{2}$  inch digits make the LCD easy to read at a distance.

The 414's also feature a High/Low Set-Point Controller for connection of valves, alarms, etc. Activation of the SPDT relay may be delayed from 0 to 120 sec to compensate for any anticipated equipment rinse-up times. All is easily programmed via just 3 pushbuttons. Front panel red and green LEDs indicate water quality relative to the set-point.

Field selectable 0-5VDC/4-20mA/0-20mA isolated outputs are available on both models.

System Application: Mixed Bed DI Two Bed Strong Base DI Two Bed Weak Base DI Distillation Double Pass RO <u>Monitor</u>

Resistivity Range: Model 414R-HP:









Temperature Display: 0 - 50.0°C or 32 - 122°F Accuracy: Resistivity, ±1% of Reading; Repeatability, ±1% Temperature, ±0.1°C Temperature Compensation: Automatic to 25°C from 5 to 50°C

Display:

1/2 inch, 4 digit LCD

# CONTROLLER

Relay:

1 SPDT rated 1 amp resistive @ 28VDC; 0.5 amp resistive @ 120VAC Function: Adjustable High/Low Set-Point

Status Indicators: Green LED / Above Set-Point

Red LED / Below Set-Point

Relay Activation Delay:

Adjustable from 0 - 120 seconds

Memory:

non-volatile EEPROM

### **OPTIONAL OUTPUTS**

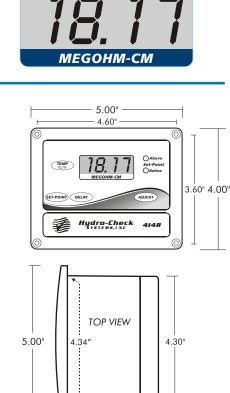
Isolated, 0-5 VDC / 4-20 mA / 0-20 mA, Field Selectable

### GENERAL

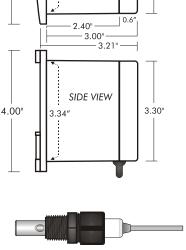
Power Input: Selectable 110 or 220 VAC; 50 - 60 Hz (24VAC available) Power Consumption: 2.4 watts; 20mA @ 110 VAC Enclosure: ABS, Panel or Wall Mount

# RESISTIVITY CELL, CS10S

Type: Insertion Style, 1/2" & 3/4" mNPT fitting included Resistivity Cell: 0.05 Cell Constant Temperature Sensor: Linear Thermistor Network, LTN Maximum Pres/Temp: 100PSIG @ 100°C Maximum Sensor Deployment: 100ft of cable Wetted Materials: 316SS, Polypropylene, Teflon®1(PTFE), EPR/EPDM



actual size



# **ORDERING INFORMATION**

MEGOHM MODEL: **414R-HP** KILOHM MODEL: **414R-K** OPTIONAL OUTPUTS: **-520** (add to monitor model number) RESISTIVITY CELL: **CS10S-10** (std 10ft cable) Optional: **-25/50/100 feet** ACCESSORIES: Wall Mount Adapter 110VAC Powercord

# Hydro-Check Systems, Inc

5931 Sea Lion Place, Suite 100 Carlsbad, CA, USA 92008 tel 760-930-1924 760-930-1934 fax www.hydrocheck.com Warranty: The Hydro-Check Systems 414 Monitor-Controllers, and Sensors have a warranty against defects in materials and workmanship for a period of 2 years from the date of manufacture. Warranty items returned prepaid will be repaired or replaced by the factory at no charge. Warranty applies only to product defects and Hydro-Check Systems, Inc. accepts no other liability.



Hy-Lite Resistivity Indicators, Remote Alarm & Relay Modules

The Best DI Water Quality Light System Accuracy, Alarm, Control at the DI tanks or 700ft away!