



**Hydro-Check**  
SYSTEMS, INC

## **414C & 414TDS Conductivity Monitor-Controllers**



*One Instrument, One Sensor*  
*Four Range AUTO-RANGING*  
*Versatile Performance!*

The 414C and 414TDS, Conductivity Monitor-Controllers set a new standard in performance at a reasonable cost. Designed for the demands of Water Conditioning and Water Treatment applications, they are the ideal specification for the OEM, Engineer, or Service Dealer.

Four Range Auto-Ranging to 10,000  $\mu$ S or 5000 ppm TDS insures precise accuracy and optimum resolution for virtually any system...  
pure water or feed, process or wastewater... without requiring different cell constants!

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

The 414's also feature a High/Low Setpoint Controller for connection of valves, alarms, etc. Activation of the SPDT relay may be delayed from 0 to 999 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 setpoint.

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

*Sample Applications:*

RO Product and Feedwater  
Distillation  
Desalination  
Two-bed DI  
Process Water  
Rinse Tanks  
Cooling Towers  
Printing Fountain Solution  
Fertilizer Control

## MONITOR

### Conductivity Ranges, MODEL 414C

Automatic, Zero to



### Total Dissolved Solids Ranges, MODEL 414TDS

Automatic, Zero to



conductivity conv. curve, .62 to .83 std factory embedded program

### Temperature Display:

0 - 50.0°C or 32 - 122°F

### Accuracy:

Conductivity, ±3% of Reading; Repeatability, ±1%

Temperature, ±0.1°C

### Temperature Compensation:

Automatic to 25°C from 0 to 50°C

### Measurement Update:

3 times per second

### Display:

numeric: ½ inch, 4 digit LCD

indicator: Red and Green LEDs for controller status

## CONTROLLER

### Relay:

1 SPDT rated 1 amp resistive @ 28VDC; 0.5 amp resistive @ 120VAC

### Function:

Adjustable High/Low Setpoint

### Relay Activation Delay:

Adjustable from 0 - 999 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

Power Consumption: 52 milliwatts; 0.43mA @ 110 VAC

Enclosure: ABS, Panel or Wall Mount

## CONDUCTIVITY CELL & TEMPERATURE SENSOR

Type: Insertion Style, ½" or ¾" mNPT fitting

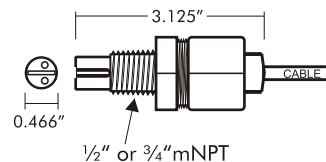
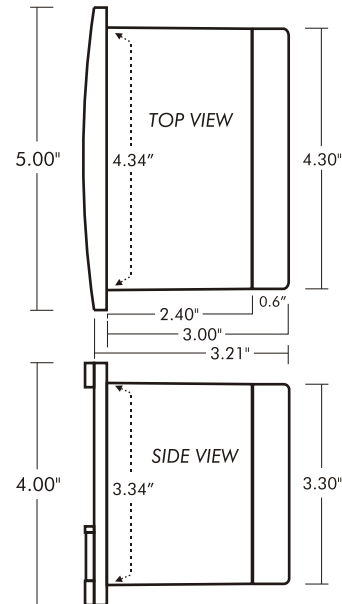
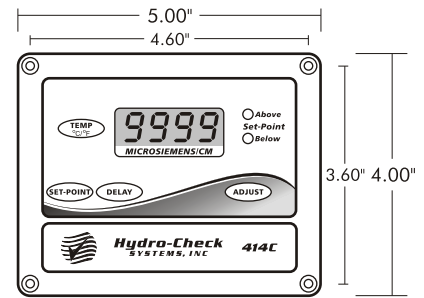
Conductivity Cell: 1.06 Cell Constant

Temperature Sensor: Linear Thermistor Network

Maximum Sensor Deployment: 100ft of cable

Wetted Materials: 316SS, Polypropylene, Noryl731®<sup>1</sup>, Viton®<sup>2</sup>

<sup>1</sup>Noryl731® is a registered trademark of the General Electric Company  
<sup>2</sup>Viton® is a registered trademark of DuPont Dow Elastomers



## ORDERING INFORMATION

CONDUCTIVITY MODEL: **414C**

TDS MODEL: **414TDS**

OPTIONAL OUTPUTS: **-520** (add to monitor model number)

SENSOR: **CTS1-10** (std 10ft cable)

Optional: **-25/50/100 feet**

ACCESSORIES: Wall Mount Adapter  
110VAC Powercord

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.

## Hydro-Check Systems, Inc

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