

# UltraDynamics®

## Series 1452

### CAPTROL® UV Controller

The CAPTROL® Model 1452 UV system controller is a compact, microprocessor-based, remote control center, designed specifically for use with CAPTROL® Ultraviolet Disinfection Systems. The 1452 controller can control up to 3 banks of UV lamps, providing automatic control. Multiple units can be used in tandem to control additional lamp banks, valves or gates.

Originally designed in 1990 for use on CAPTROL® chlorination systems. The CAPTROL® Series 1450 controllers incorporate a time proven design with over 2,000 installed units. From the easy-to-read lighted display, to the simple 4-button data input controls, the CAPTROL® Model 1452 controller provides reliable, user-friendly UV system operation.

#### Operation

The CAPTROL® Model 1452 Controller automatically selects the required number of banks required based upon the electrical input signals from a flow meter.

Inputs are provided for the connection of ultraviolet intensity monitors. The Model 1452 displays ultraviolet intensity in percent and will alarm on low intensity.

The controller is field-configurable with all setup parameters fully adjustable from the front panel. Setup parameters include: low UV intensity or low flow conditions, minimum lamp on timer, duty rotation period, and flow signal setpoints.

The screen of the controller displays process data including: UV intensities, flow rate, alarm setpoints and bank operational status including: countdown to rotation, and time remaining to turn off a lamp.

Front lamp indicators provide UV bank selected status.



#### Features

- ◆ Control of up to three UV lamp banks
- ◆ Flow proportional or manual control mode
- ◆ UV intensity monitoring and alarm
- ◆ Automatic duty bank rotation
- ◆ Minimum lamp on time and elapsed time meter
- ◆ Bumpless transfer between manual and automatic control
- ◆ Backlit digital display
- ◆ Alarm indicators and contacts
- ◆ Microprocessor-based
- ◆ Alphanumeric display data
- ◆ Specific to ultraviolet disinfection
- ◆ Fully field configurable
- ◆ Three band control
- ◆ Flow proportional control
- ◆ UV intensity monitoring and alarm



# TECHNICAL DATA

**Control Technology:** Microprocessor

**Control Mode:** Flow Proportioning

**Range of Adjustment:**

- bank flow setpoints 0-100%
- low UV setpoints 0-100%
- low flow setpoint 0-100%
- minimum lamp on time 1-6 hours
- rotation days/hours 1-20

**Display:** LCD, 2x24 characters adjustable contacts; anti-glare protection on display, back lighted

**Indicators:** LED indicators for bank operation status

**Data Protection:** Four (4) day internal battery back (NiCd battery rated at 6 V, 280 mAh)

**Ambient Temperature:** 14°F to 122°F (-10°C to 50°C)

**Enclosure:** NEMA 12 (IP54)

**Mounting:** Wall or Surface

**Weight:** 10 lbs. (5 kgs)

**Dimensions:** 8 11/32" (212 mm) L x 4" (102 mm) W x 7 1/16" x (180 mm) H

**Power Requirements:** 120/240 Vac, ±10%, 50/60 Hz, single phase

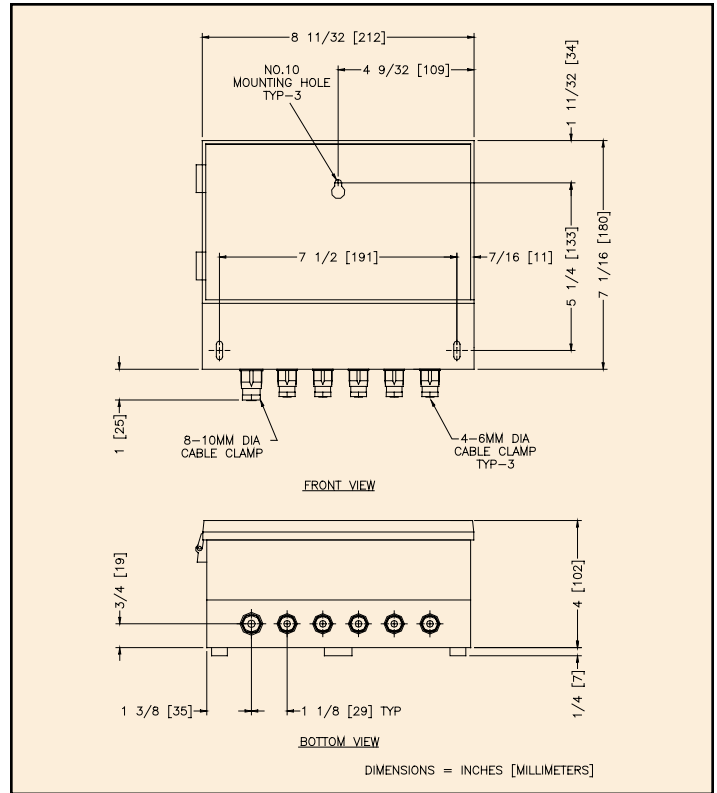
**Power Consumption:** 12 Watts

**Fuse:** 0.5A slow blow

**Input Signals:**

- (1) Flow signal:** isolated 4-20 mAdc, 249 ohms input impedance or 1-5 Vdc
- (3) UV intensity:** Isolated 4-20 mAdc, 249 ohm input impedance or 1-5 Vdc
- (1) Switch input:** Dry contacts rated 5V, 0.5A

**Output Contact:** 5 amps @ 240 Vac or 28 Vdc, resistive load, SPDT, for bank 1-3 selection and low UV intensity alarm or low flow alarm



Model 1452 CAPRTROL® UV Controller Dimensions

## Warranty and Capability

Severn Trent Services UltraDynamics® Ultraviolet Disinfection products are warranted for eighteen months from the date of invoice, or twelve months from the date of installation, whichever is earlier.

Disinfection technologies, water quality monitors and instrumentation for water and wastewater are areas of specialization. Over 35 years of industrial and municipal application experience in the water and wastewater industries.

## Brief Specification

The unit shall be operated in flow proportional mode. The operating program shall provide for entry and storage of: flow signal setpoints, high/low flow, low UV intensity setpoints, minimum lamp on time period, and duty rotation period.

The controller shall include relay contacts rated 5 amps, (240 Vac) (28 Vac) resistive load, SPDT, for individual bank selection of up to three banks and an alarm contact for either low UV intensity or low flow rate.

The controller shall provide dry contact switch inputs for UV module failure, rated 5V, 0.5 amps. The controller shall receive up to four (4-20 mAdc) inputs for ultraviolet intensities from each bank and a flow signal for flow proportional control.

## Severn Trent Services

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