The DULCOMETER® Disinfection and Process Monitor/Controller technology is revolutionizing measuring, control and metering technology in public, industrial and process water systems. The decentralized modular concept with one single central unit controls sensors and actuators for up to 16 locations.

Features & Benefits
- The DULCOMETER® Disinfection and Process Monitor/Controller is compact and configurable for any application. It is easy to operate and easy to install
- Integrated videographic recorder
- Large VGA color display
- Context-sensitive on-line help
- Logbook function saves all events such as calibration data, error messages etc.
- Embedded web server – view measurement data from any PC with a standard web browser
- Maintenance/error messages by SMS or e-mail
- Decentralized modular design - control of up to 16 measurement locations.
- Easy on-site calibration
- Access Codes to prevent unauthorized adjustment
- It is easy to operate and easy to install

Applications
- Water and wastewater disinfection
- Process water control and water reuse
- Food and beverage
- Legionella control
- Aquatic, Water park, and Zoo markets
### Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>1 to 14</td>
</tr>
<tr>
<td>Redox/ORP</td>
<td>-1200 to +1200 mV</td>
</tr>
<tr>
<td>free chlorine</td>
<td>0.01 to 100 ppm</td>
</tr>
<tr>
<td>total chlorine</td>
<td>0.01 to 10 ppm (optional)</td>
</tr>
<tr>
<td>combined chlorine as differential measurement</td>
<td>0.01 to 2 ppm (optional)</td>
</tr>
<tr>
<td>temperature</td>
<td>-4 °F to 120 °F (20 °C to +50 °C)</td>
</tr>
</tbody>
</table>

### Other Measurements available
- Flouride, Bromine, Dissolved Oxygen, Chlorite, Chlorine Dioxide, Ozone, PAA, Turbidity, Conductivity and any 4-20 mA

### Error of measurement
- pH, chlorine and ORP: max. ±0.5 % of the measuring scale range (at 77 °F / 25 °C)
- Temperature: max. ±0.5 °C of the measuring range (at 77 °F / 25 °C)

### Measurement inputs
- pH and Redox/ORP via terminal mV
- connection of sensor modules and actuator modules via CANopen bus

### Control modes
- P/I/PID control, intelligent control
- Bidirectional control for pH (acid/alkali), unidirectional control for disinfectants
- Eco!Mode
  - Eco!Mode – contact provides release for reduction of circulation power, provided DIN values are observed. After completed reduction, the control parameters optimised for reduced operation can be activated

### Digital inputs (per system)
- 6 x 16 potential-free inputs (sample water, pause, 3 pump fault relays, disturbance variable, changeover of parameter set, contact water meter)

### Analog inputs (per system)
- 3 x 16 4-20 mA Inputs
- 2 x 16 Digital Inputs

### Signal current outputs (per system)
- 4 x 0/4-20 mA (for each measured variable galvanically separated), max. load 600 Ω range adjustable
- 3 x 16 Digital Inputs
- 3 x 16 Pulse Inputs

### Alarm relay
- 250 V~, 3 A

### Interfaces
- Local Area Network (LAN), SD expansion slot (for SD or MMC cards)

### Communication
- Embedded web server or embedded OPC server

### Electrical connection
- 85 to 265 V~, 50/60 Hz

### Ambient temperature
- 23 °F to 113 °F (-5 °C to 45 °C)

### Storage temperature
- 14 °F to 158 °F (-10 to 70 °C)

### System of protection
- IP 65 - NEMA 4x

### Dimensions of central unit
- 13.46” x 8.94” x 3.07” (342 x 227 x 78 mm) (WxHxD)

### Weight
- Depending on design: 1.8 to 2.5 kg

### Dimensions of external modules
- 4.92” x 5.31” x 2.95” (125 x 135 x 75 mm) (WxHxD)

### Weight
- approx. 16.08 oz. (500 g)

### Humidity
- Permissible relative humidity: 95 % non-condensing DIN IEC 60068-2-30

### Signal current output
- 2 x 0/4 - 20 mA electrically isolated, max. load 450 Ω, range and allocation (measured, correction, control variable) can be set

### Compliance of all devices
- All devices meet on the hardware side the harmonised CAN specification 2.0 (ISO99-1, ISO99-2), with CANopen. This specification includes the CAN protocol (ISO 11898-1) and data on the physical layer pursuant to ISO specifications 11898-2 (high speed CAN up to 1MBit/sec) and ISO 11898-3 (low speed CAN up to 125kBIt/sec). The device complies with the CANopen specification CIA-DS401 which forms the basis of the European Standard EN50325-4. The control device profile CIA-404 is met.