



FCLG6000 Controller With USB Feature



Flow cell with sampling valve



Digital Free Chlorine Sensor with Integrated Temperature

## Free Chlorine Analyzer

High accuracy and reliable Free Chlorine analyzer providing better compliance and process control.

## Applications



**Power Industry**



**Process Water**



**Drinking Water**



**Municipal Water**



**Sewage Treatment**



**Disinfection**

## In A Glance...

Leadtec FCLG6000 controller offers an unrivalled user friendliness in measurement of Free Chlorine. Its minimalistic design offers the most convenient operation than any analyzers. The controller is well-equipped with analogue output and Field Bus Connection RS-485 communication.

Leadtec Digital Free Chlorine sensor is three electrode sensor in which the measuring electrode is made of gold, the

reference electrode is made of silver with a silver halide coating and the counter electrode is made of stainless steel.

The operation and calibration can be performed easily with a friendly step-by-step interface by using DPD method. The sensor has low maintenance cost and required no reagent for its operation. Besides, the sensor has reduced pH dependence by eliminating the influence on the stability of measuring signal.

## Benefits

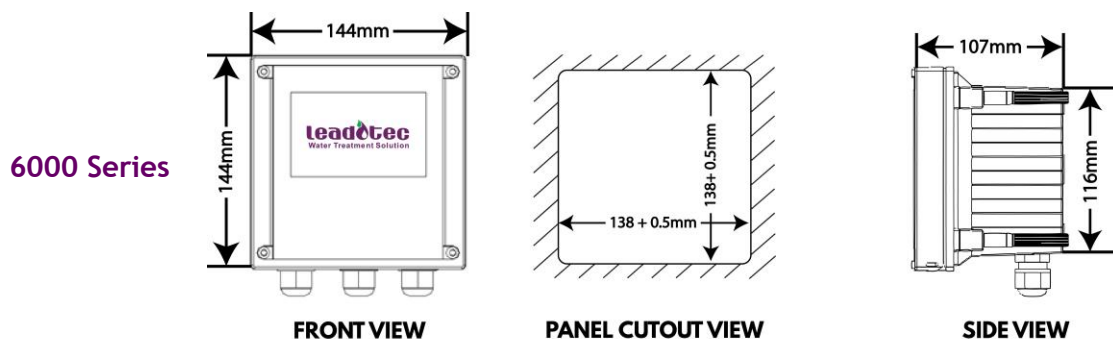
- ❖ **Robust & Reliable:** Highest level of waterproof and dustproof analyzer for site measurement and easy installation, while the sensor has long time stability with loss in slope  $\pm 3\%$ .
- ❖ **Intuitive Operation:** Step-by-step navigation facilitates the user to configure the analyzer and calibrate the sensor.
- ❖ **Low Maintenance Cost:** The electrode system has a long lifetime, which the only part for wear and tear is the electrolyte and membrane cap.
- ❖ **Clean-cut display:** Neat and organized functions allow zero hassle operation.

# Specifications (Free Chlorine Analyzer)

|                                     |   |
|-------------------------------------|---|
| <b>Measuring Range</b>              | 0.000 – 20.000 ppm                                  |
| <b>Resolution</b>                   | 0.001 ppm   |
| <b>Accuracy</b>                     | ±3%   |
| <b>Temperature Range</b>            | -10.0°C to +130.0°C                                 |
| <b>Temperature Resolution</b>       | 0.1°C   |
| <b>Temperature Accuracy</b>         | ±0.2°C  |
| <b>Ambient Temperature</b>          | 0°C to +70°C  |
| <b>Input Impedance</b>              | >10 <sup>12</sup> Ω                                 |
| <b>Analogue Output</b>              | 2 x 4-20mA electrically isolated,<br>Max load 500Ω  |
|                                     | <b>Current 1</b><br>Free Chlorine                   |
|                                     | <b>Current 2</b><br>Temperature                     |
| <b>Control Outputs</b>              | 2 x Relay Outputs<br>1 x Multifunctional Relay      |
| <b>Max. Relay Contacts Capacity</b> | 5A/250 VAC<br>5A/30 VDC                             |
| <b>Cleaning Setting</b>             | ON : 1 to 1000 seconds<br>OFF : 0.1 to 1000.0 hours |
| <b>Multifunctional Relay</b>        | Clean / Period Alarm / Error Alarm                  |

|                                     |   |
|-------------------------------------|---|
| <b>Relay Delay</b>                  | 0 to 120 seconds                                    |
| <b>Fieldbus Connection</b>          | RS-485 Modbus                                       |
| <b>Baud Rate</b>                    | 9600 / 19200 / 38400                                |
| <b>Protection Class</b>             | IP65  |
| <b>Display</b>                      | LCD dot matrix                                      |
| <b>Language Selection</b>           | English<br>Others upon request                      |
| <b>Electrical Connection</b>        | 90 to 260 VAC or<br>24 VDC<br>Power consumption <5W |
| <b>Data Logging Capacity</b>        | 500,000   |
| <b>USB Function (FCLG6000 only)</b> | Data extraction<br>Software update                  |
| <b>Dimensions</b>                   | <b>FCLG6000</b><br>144 (H) x 144 (W) x 105 (D) mm   |
| <b>Panel Cutout</b>                 | <b>FCLG6000</b><br>138 x 138 mm                     |
| <b>Weight</b>                       | <b>FCLG6000</b><br>0.85 kg                          |
| <b>Installation</b>                 | Panel / Wall / Pipe mount                           |

## Dimensions



Dimensions of FCLG6000

Design outlook subjected to change without prior notice.

# Specifications (Free Chlorine Sensor)

|                                 |  |
|---------------------------------|--|
| <b>Measuring System</b>         | Amperometric Potentiostatic<br>3-Electrode System    |
| <b>Measuring Range</b>          | 0.000 – 20.000 ppm                                   |
| <b>Electronic</b>               | Digital Modbus RTU                                   |
| <b>Slope Drift</b>              | Approx. <3% per month                                |
| <b>Operating Temperature</b>    | 0 – 45°C   |
| <b>Temperature Compensation</b> | Automatically by an integrated<br>temperature sensor |
| <b>Operating Pressure</b>       | 0.5 bar in the flow cell                             |
| <b>Flow Rate</b>                | Approx. 15 – 30 L/h in flow cell                     |

|                          |   |
|--------------------------|---|
| <b>pH Range</b>          | pH 4 – 12, highly reduced dependence<br>on pH value                         |
| <b>Run-in Time</b>       | First start-up approx. 2 hours  |
| <b>Response Time</b>     | T90 approx. 2 minutes   |
| <b>Slope Calibration</b> | DPD-1 Method  |
| <b>Power Supply</b>      | 9 – 30 VDC  |
| <b>Dimension</b>         | Diameter : 25mm<br>Length : 205mm   |
| <b>Material</b>          | Microporous Hydrophilic Membrane<br>PVC-U<br>PEEK<br>Stainless Steel 1.4571 |

## Dimensions



Diameter = 25mm  
Length = 205mm

Design outlook subjected to change without prior notice.

Dimensions of FC1N sensor

## Order Code

### FCLG6000 Digital Free Chlorine Analyzer

| Part No.              | Description   |
|-----------------------|---|
| <b>FCLG6000</b>       | Digital Free Chlorine IP65 Panel / Wall / Pipe mounted base analyzer fitted with 2 x 4-20mA, 2 x relay outputs, 1 x multifunctional relay, RS-485 Modbus, and 1 x USB slot for data extraction and software update.<br>Power supply: 90~260 VAC |
| <b>FCLG6000-24VDC</b> | Digital Free Chlorine IP65 Panel / Wall / Pipe mounted base analyzer fitted with 2 x 4-20mA, 2 x relay outputs, 1 x multifunctional relay, RS-485 Modbus, and 1 x USB slot for data extraction and software update.<br>Power supply: 24 VDC     |

### Free Chlorine Sensor

| Part No.    | Description   |
|-------------|---|
| <b>FC1N</b> | Digital Free Chlorine - Amperometric sensor with integrated temperature sensor and 2-meter detachable cable. Membrane, amperometric potentiostatic 3-electrode system with built-in electronic & highly reduced dependence on pH-value. |

### Mounting Kit

| Part No.      | Description  |
|---------------|--|
| <b>FL-006</b> | Flow Cell for 25mm amperometric sensor with flow indicator and sample valve. |

### Spare Parts

| Part No.         | Description                              |
|------------------|--|
| <b>FC1N-HEAD</b> | Digital Free Chlorine membrane cap.      |
| <b>FC1N-ET</b>   | Digital Free Chlorine electrolyte 100ml. |