



## **Electrochemical CL2 Density Transmitter via USB**

# **UA54-CL2**

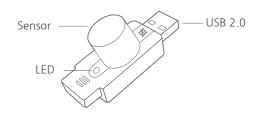
- · Real-time CL2 density, Temperature transmitter
- · Electrochemical CL2 gas sensor embedded
- · Individual Certificate included
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
- Android Recording App (Tapaculo Mobile)



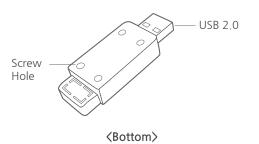
The UA54-CL2 device has an electrochemical Chlorine(CL2) sensor inside. It transmits measured CL2 density and temperature information in real-time via the USB connector.

The UA Series is automatically recognized as a serial port on the operating system and accessed using the AT command. Multiple USB connections of the UA device could compose the multi-channel sensor. The sensor data is not stored in the UA, but recording in PC and Android device. 128CH real time monitoring software on pc, Tapaculo Lite is downloadable on our website(www.radionode365.com). And android real time recording application is also available from google play store. The optional RN17X model helps UA series for you to setup remote web monitoring system.

#### **Hardware**



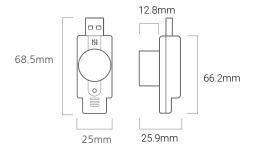
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#### **Contact Information**

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#### **Dimensions**



### **△ CAUTION!**

- Volatile organic compounds (VOCs) should be avoided in applications where electrochemical sensors are used because they either dissolve in the electrolyte or adsorb onto the sensor's housing.
- Long term exposures and high concentrations may affect the performance characteristics
- Sudden changes in humidity cause short-term transient signals
- · Avoid contact with conductors.
- · Static electricity can cause distorted values.







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# **UA54-CL2 Specifications**

| Sensor Channel<br>Info.                     | • CH1: CL2 (Chlorine) • CH2: Temperature   |  |  |
|---|--|--|--|
| Gas Sensor Type                             | Electrochemical Cell   |  |  |
| Gas Sensor Filter                           | Metal Sintering filter   |  |  |
| Body Material                               | PC   |  |  |
| Measurement<br>Range                        | • CL2: 0 ~ 10 ppm<br>• Temperature: -40 ~ 50°C   |  |  |
| Measurement Unit<br>(Selection using<br>SW) | • CL2: ppm<br>• Temperature: °C(Default), °F   |  |  |
| Measurement Cycle                           | 1 sec  |  |  |
| Sensor Resolution                           | • CL2: < 0.1ppm<br>• Temperature: 0.01°C   |  |  |
| Sensor Accuracy<br>(Repeatability)          | • CL2: < 2% of measured value<br>• Temperature: ±0.2°C   |  |  |
| Baseline Drift                              | Zero $\pm$ 0.5 ppm   |  |  |
| Long-term Drift                             | < 2% signal loss / month   |  |  |
| Gas Response Time                           | T80 < 60 secs  |  |  |
| Warming up Time                             | < 10 mins after power-on   |  |  |
| Operating Condition                         | • Temperature: -40 ~ 50°C (-4 ~122°F)<br>• Humidity: 5 ~ 95% R.H (non condensing)  |  |  |
| Lifetime <sup>1)</sup>                      | 2 years in clean air   |  |  |
| Power<br>Consumption                        | 5V (Max. 116mW)  |  |  |
| Calibration<br>Certificate                  | Individual Certificate<br>Calibration with 3.3ppm calibration gas mixture  |  |  |
| Calibration Method                          | Two point Calibration Mode<br>Manual Zero Calibration Mode   |  |  |
| USB Port                                    | USB 2.0 Type A Plug  |  |  |
| Output Signal                               | USB digital, CDC Device (AT Command)   |  |  |
| LED   | Device Status Indicator  • BLINK RED & GREEN: Warming-up  • RED KEEP ON: USB Connection Failed  • BLINK GREEN: Measuring   |  |  |
| Software Support                            | Tapaculo Mobile  2CH recording software on Android devices  Download: Google play store Tapaculo Lite  128CH recording software on PC  Download: www.radionode365.com Calibration Software  Calibrator that compensates measuring error.  Download: www.radionode365.com |  |  |

<sup>1)</sup> Gas sensors have a longer life when measured discontinuously than when measured continuously.

# **Application**

- Semiconductor production lines
- Chemical industry
- Industrial Safety Monitoring
- Centralized Gas Monitoring System

### **Product Components**

| Model    | Component   |
|----------|---|
| UA54-CL2 | <ul> <li>UA54-CL2(1EA)</li> <li>USB Extension Cable 1.5 m(1EA)</li> <li>Calibration Certificate(1EA)</li> </ul> |

### **Optional Accessories**

| Туре                                       | Model<br>Number | Spec.  |
|--|-----------------|--|
| Sensor data<br>transmitter<br>via Ethernet | RN171<br>WC     | <ul> <li>Supports cloud monitoring</li> <li>Supports MODBUS TCP/<br/>HTTP data transmission</li> <li>Power: PoE 48V,<br/>IEEE802.3af/at, DC6V, 1.9W</li> </ul> |
| Sensor data<br>transmitter<br>via WiFi     | RN172<br>WC     | <ul> <li>Supports cloud monitoring</li> <li>Supports MODBUS TCP/<br/>HTTP data transmission</li> <li>Power: DC6V, 2.4W</li> </ul>                              |