

3004MC/3006MC

NEON REMOTE LOGGER CELLULAR



MODEL MC



The 3004MC/3006MC Neon Remote Logger Cellular is a Neon Remote Logger, housed in a polycarbonate case which has a smaller form factor than the standard metal enclosure 3004. It utilises the Cellular 2G / 3G / 4G / LTE phone networks as its method of sending sensor data from the field to the Neon Server.

The 3004MC/3006MC Neon Remote Logger Cellular connects to sensors in the field, collects readings from those sensors, logs the sensor data, provides control functions and also transmits the collected data to a central server via a Cellular phone network.

The 3004MC/3006MC Neon Remote Logger Cellular is programmed in the field with a Unidata standard program called a scheme. The scheme specifies how often and for how long the datalogger should collect data from the sensors and how often the data should be sent to the server. Control outputs are also set up in the scheme by setting up custom events.

A wide range of sensor types are supported, for example, analog sensors, frequency counters, digital inputs as well as Modbus and SDI-12. Control of external equipment (such as triggering a relay when a user defined event occurs, or initiating a shutdown), can be accomplished via Open Drain FET output.

Sensors are connected to the logger via pluggable terminal blocks, allowing for easy removal of the logger if servicing is required.

SPECIFICATIONS

| PHYSICAL SPECIFICATIONS | |
|-------------------------------|--|
| MATERIAL: | Polycarbonate |
| SIZE: | L190mm x W80mm x H55mm, 300g |
| OPERATING TEMPERATURE: | -20° to +60°C. Not affected by humidity |
| ANTENNAE: | On board stub antenna, optional external whip antenna |
| ELECTRICAL SPECIFICATIONS | |
| EXTERNAL POWER: | 9 to 30V DC |
| CURRENT DRAW: | 50µA Standby |
| RTC BACKUP BATTERY: | 3.6V Li Coin Cell (5 year life) |
| INTERNAL POWER: | 3.6V Lithium D Cell |
| INSTRUMENT POWER: | 5V, 12V or 18V regulated, 80mA (user selectable) |
| INSTRUMENT REFERENCE VOLTAGE: | 5V 10mA Max |
| ANALOG CHANNELS: | 3004: 4 Single ended (max) or 2 Differential (max) 3006: 6 Single ended (max) or 3 Differential (max) 24 bit resolution, 4 user selectable gain ranges 1: 0-5V, 4: 0-1.25V, 16: 0-312.5mV, 128: 0-39.0625mV |
| MODBUS: | 1 x independent channel, RS485, RTU or ASCII protocol, 57600 baud (max), Functions 01, 02, 03, 04, 05/15, 06/16 |
| SDI-12: | 1 x independent channel, SDI V1.3 Compliant, instrument and recorder modes supported |
| UNIDATA HSIO: | High speed serial interface, 16 channels, bi-directional |

| COUNTERS 3004: | 2 x 16 bit, DC to 20kHz potential free contacts or 0 to 5V DC digital input (C0, C2); 2 x 16 bit, DC to 300Hz potential free contacts or 0 to 5V DC digital input (C1, C3) |
|----------------------------------|---|
| COUNTERS 3006: | 1 x 16 bit, DC to 20kHz potential free contacts or 0 to 5V DC digital input (C0); 1 x 16 bit, DC to 300Hz potential free contacts or 0 to 5V DC digital input (C1) |
| DIGITAL OUTPUT: | 1 x Open Drain FET, 30V DC, 250mA max |
| CONFIGURATION PORT: | USB B Micro Port and SD Micro Card |
| OPERATING FREQUENCIES: | 2G, 3G and 4G cellular networks, Single SIM card support |
| ACCELEROMETER: | Senses changes in logger orientation |
| BAROMETER: | 260-1260hPa Absolute Digital Output |
| INTEGRATED LOGGER SPECIFICATIONS | |
| STORAGE MEMORY: | 7.5Mbytes Flash (non-volatile), 3.75 Million log data points |
| MEMORY EXPANSION: | SD card, micro size, 32Gbyte maximum capacity, 16 Billion log data points |
| SCAN RATE: | Programmable from 1 second to 5 minutes |
| LOG RATE: | Programmable from 1 second to 24 hours |
| TIME CLOCK: | Battery Backed Real Time Clock (RTC), Accuracy +/-10 seconds/month (non-Neon version), locked to server time clock (Neon version) |
| CPU: | 16 Bit, 20MHz, Ultra Low Power |