

3004

NEON REMOTE LOGGER – LORA WAN



neon



MODEL A



The 3004 Neon Remote Logger LoRa WAN utilises the LoRa communication system as its method of sending sensor data from the field to the Neon Server.

The 3004 Neon Remote Logger LoRa WAN 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 LoRa WAN network, which utilises MQTT.

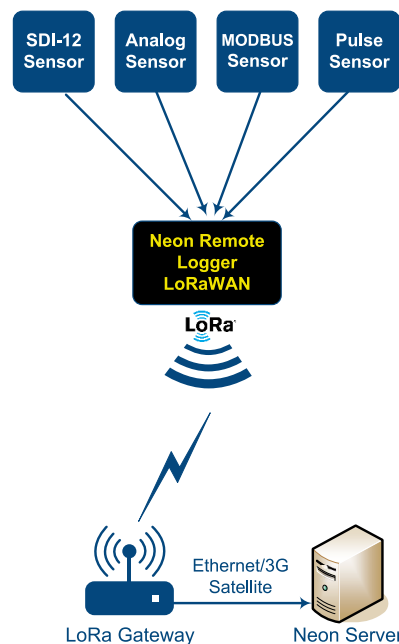
The 3004 Neon Remote Logger LoRa WAN is programmed, either in the factory, or in the field with a Unidata standard program called a scheme. The scheme specifies how often and for how long the datalogger should collect data from the sensors and how often the data should be sent to the server. Control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

The NRL LoRa operates in what Unidata calls LoRa Mode 2. In this mode, sensors are read by the logger according to the scheme. A set of short data packets will be sent, as set by logging interval, to the LoRa WAN gateway over either private or public LoRa network. LoRa WAN gateway transfers data packets to Neon Server using Ethernet, cellular or satellite network. The LoRa Wan system has a typical range of to 5 Km, the range reduces in built up areas depending on building density and increases where there is line of sight and a larger antenna.

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 Relay contacts and 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

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| OPERATING FREQUENCIES: | LoRa AU915, US915, EU868, AS923 |
| SCAN RATE: | Programmable from 1 sec to 5 min |
| TRANSMIT RATE: | Programmable from 30 sec to 24 hours |
| MATERIAL: | Polycarbonate |
| SIZE: | L190mm x W80mm x H55mm |
| WEIGHT: | 300g |
| OPERATING TEMPERATURE: | -20° to +60°C. Not affected by humidity |
| INTERNAL POWER: | 3.6 Volt Lithium D Cell |
| EXTERNAL POWER: | 9 to 15V DC |
| CURRENT DRAW: | 50µA Standby |
| ACCELEROMETER: | Optional |

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|----------------------------|---|
| ANTENNAE: | On board, optional external whip antenna |
| PROVIDES INSTRUMENT POWER: | 12V regulated, 200mA |
| ANALOG CHANNELS: | 4 Single ended (0-2500mV) with 12 bit resolution |
| MODBUS: | 1xModbus RS485 RTU protocol, 57600 baud max |
| SDI-12: | 1xSDI V1.3 Compliant, instrument mode |
| COUNTERS: | 2 x 16 bit, DC to 32kHz potential free contacts or 0 to 5V DC digital input |
| DIGITAL OUTPUTS: | 1 Open Drain FET, 30V DC, 250mA max |
| CONFIGURATION PORT: | USB Port |