

3001M

NEON NANO REMOTE LOGGER



neon



MODEL B-MC/I/L



The 3001M Nano Logger was designed for use in boreholes of 100mm internal diameter and above, but it can be used whenever a smaller form factor logger is required. It can be configured to use either Cellular, Iridium SBD or LoRa networks as its method of sending sensor data from the field to the Neon Server.

The 3001M Nano Logger connects to sensors in the field, collects readings from those sensors, logs the sensor data and transmits the collected data to a central server via a Cellular, Ethernet, LoRa or Satellite network.

The 3001M Nano Logger 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.

A wide range of sensor types are supported, for example, analog sensor, frequency counter, digital input as well as Modbus and SDI-12.

The 3001M NRL Nano Logger comes with 2 x D cell Lithium batteries.

The 3901A Battery extender can be used to add additional lithium battery capacity to the 3001 Neon Remote Logger. Depending on the application, the scan rate, the log rate and the communications rate, this battery extender allows for up to 10 years of operation for the 3001 NRL.

Sensors are connected to the logger via a custom specified connector, allowing for easy removal of the logger if servicing is required.

SPECIFICATIONS

PHYSICAL SPECIFICATIONS	
MATERIAL:	Polycarbonate
SIZE:	L120mm x W80mm x H72mm, 300g
OPERATING TEMPERATURE:	-20° to +60°C. Not affected by humidity
ANTENNAE:	External 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:	3.6 V Lithium D Cell x2
INSTRUMENT POWER:	15V or 18V regulated, 80mA (user selectable)
ANALOG CHANNELS:	1 Single ended (0-2.5V DC), 12 bit resolution
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

COUNTERS:	1 x 16 bit, DC to 20kHz potential free contacts or 0 to 5V DC digital input (C0)
CONFIGURATION PORT:	USB B Micro Port and SD Micro Card
OPERATING FREQUENCIES:	Option C: 2G, 3G and 4G, Single Micro SIM card support Option L: LoRa AU915, US915, AS923, EU868 Option I: 1.5GHz
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