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The 3004MI/3006MI Neon Remote Logger Iridium SBD 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 Iridium satellite network short burst data subsystem. It is a high reliability message based system, providing reasonable cost satellite communications and a low latency. This service is ideal if you have a requirement for short messages to report sensor data. Latency from such systems is in the order of minutes and the satellite airtime costs reflect this low latency service.

The 3004MI/3006MI Neon Remote Logger Iridium SBD connects to sensors in the field, collects readings from those sensors, logs the sensor data, provides some local control functions and also transmits the collected data to a central Neon server via a low earth orbit satellite network.

The 3004MI/3006MI Neon Remote Logger Iridium SBD 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 Neon server.

Control outputs are also set up in the scheme by setting up custom events to operate on a local basis.

A wide range of sensor types are supported, for example, analog; including 4-20mA 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:	External Low Profile 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 0 to 5000mV (gain=1) to 0 to 39mV (gain=128)
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
OPERATION FREQUENCIES:	1.5 GHz
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