Streamline Measurement Ltd

Neon Remote Terminal - Inmarsat Satellite 2018E

- **Internet enabled**
- **Global coverage on Inmarsat BGAN system**
- **Built-in logger**
- **Expandable via the Starlogger**
- **Modbus RS485 Interface**
- **SDI-12 interface for connection low power instruments**
- **On-board digital and analogue connection to sensors**
- **Built in logger with optional volatile flash memory archive**

The 2018E NRT Inmarsat BGAN M2M Satellite (Logger/RTU) is a small self-contained unit which connects to sensors in the field, collects readings from those sensors, and transmits the collected data to a central server via a standard Ethernet port connected to an Inmarsat BGAN Terminal.

The Neon central server system is provided on a Neon Data Service basis and on a Neon Client System basis and provides a central computer system to monitor and receive data from many NRT units in the field.

The 2018E NRT Satellite is designed to automate collection of remote data from environmental monitoring, industrial measurements, and utility metering via the Inmarsat BGAN Satellite Network.

Fully bi-directional communications are possible via the Neon server. Data can be collected directly and the NRT can be programmed from any internet connection.

The 2018E NRT Logger/RTU supports TCP/IP packet data. Long battery life and low operating costs are made possible through use of advanced microcontroller technology.

The 2015D NRT Satellite supports integrated logging or automated collection of data from an external datalogger.

Inputs include analog, digital and SDI 12 datalogger interface standard. There is also Modbus support, a partial implementation of the Modbus protocol which allows for extract data (get) and place data (put) from/to a specific register within the Modbus RTU on an RS485 connection.

(Further details on request)

Physical specifications

Material:	Anodised aluminium
Size:	240mm x 150mm x 78mm (HxWxD)
Weight:	1,160 grams (including battery pack)
Operating temperature:	–20°C to 60°C. Not affected by humidity

Electrical specifications

Battery:	10.8V 13Ah lithium (non-rechargeable)
Battery life:	5 years (based on daily schedule)
External power:	10.5 to 24V DC input available if required
Instrument power:	5V unregulated supply (5mA max) plus 2.5V ref (5mA max)
I/O:	4 x analog inputs – 12 bit resolution 1 x counter input – 16 bit/3kHz, 3–5V DC signal (included) 3 x counter inputs – 16 bit/300Hz, 3–5V DC signal (option) 1 x open collector output, 250mA maximum 1 x HSIO (16 x 16 bit bi-directional, synchronous data) channel
SDI-12:	SDI-12 v1.3 recorder (1200 baud smart instrument Channel)
Modbus:	RS485 RTU Protocol, 19200 baud max, Functions 01, 02, 03, 04, 05/15, 06/16
Ethernet:	Option of 1 or 3 standard Ethernet ports

Integrated logger specifications

Storage memory:	30kB/15,000 readings – non-volatile flash memory
Optional storage memory:	8MB/4,000,000 readings – non-volatile flash memory
Time clock:	Crystal regulated, +/- 10 seconds/month – automatically network synchronised
Scan rates:	Programmable from 1 second to 5 minutes

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