

# Neon Remote Terminal – NRT Satellite 2102C



- Internet enabled
- Global coverage
- Built-in logger
- Expandable via the Starlogger interface
- SDI-12 interface for connection to a wide range of low power instruments
- On-board digital and analogue interfaces for direct connection to sensors and other instruments

The NRT Satellite 2102C 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 satellite communications.

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 Neon NRT units in the field.

The NRT Satellite 2102C is designed to automate collection of remote data from environmental monitoring, industrial measurements, and utility metering via the international Globalstar LEO Satellite network from any location on the globe, except the Arctic, Antarctica, and Africa.

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

The NRT Satellite 2102C supports integrated logging or automated collection of data from an external datalogger.

The NRT Satellite 2102C's built-in modem supports packet data, switchboard circuit data, and SMS communications. Long battery life and low operating costs are made possible through use of advanced microcontroller technology and an efficient protocol that takes advantage of Globalstar's packet transfer capability.

## Physical specifications

<b>Material:</b>	Anodised aluminium
<b>Size:</b>	200 mm x 112 mm x 50 mm (HxWxD)
<b>Weight:</b>	850 grams (including battery pack)
<b>Operating temperature:</b>	-20 °C to 60 °C. Not affected by humidity
<b>Antennae:</b>	External conical dielectric resonator 103 mm x 63 mm (DxH), 1m cable

## Electrical specifications

<b>Battery:</b>	10.8V 14Ah lithium (non-rechargeable)
<b>Battery life:</b>	5 years (based on daily schedule).
<b>External power:</b>	10.5 to 16V DC input available if required
<b>Instrument power:</b>	Continuous 3.6V nom (20mA max) plus 2.5V ref (5mA max)
<b>I/O:</b>	4 x analog inputs – 12 bit resolution 1 x counter input – 16 bit 3kHz or 3–5V DC signal. 1 x control output 1 x HSIO (16 x 16 bit bi-directional, synchronous data) channel
<b>SDI-12:</b>	SDI-12 v1.3 recorder (1200 baud smart instrument Channel)

## Integrated logger specifications:

<b>Storage memory:</b>	15 000 readings – non-volatile flash memory
<b>Time clock:</b>	Crystal regulated, +/- 10 seconds/month – automatically network synchronised
<b>Scan rates:</b>	Programmable from 1 second to 5 minutes
<b>Log intervals:</b>	Programmable from 1 second to 24 hours

