

# 2002C Neon Remote Terminal – Satellite



- 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 2002C 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 2002C 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 can be programmed from any internet connection.

The NRT Satellite 2002C supports integrated logging or automated collection of data from an external datalogger.

The NRT Satellite 2002C's built-in modem supports packet data. 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.

The NRT Satellite 2002C 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 an option for 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

<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 13Ah 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>	2 x analog inputs – 12 bit resolution 1 x counter input – 16 bit 3kHz or 3–5V DC signal 1 x open collector 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)
<b>Modbus:</b>	RS485 Modbus interface

## 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



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