NL100 Network Link Interface

Model NL100 Network Link Interface

Allows communication between a Campbell Scientific datalogger and a computer using TCP/IP

Introduction

The NL100 Network Link Interface is a 10baseT ethernet communication peripheral. This allows connection of the datalogger to an intranet or the internet. This device allows most Campbell Scientific dataloggers with an RS232 or CS I/O port (including the CR200, CR800 series, CR5000) to communicate over a local area network or a dedicated internet connection. The NL100 can also be used as a means of bridging a network of dataloggers connected via RS485 (MD485s) to a TCP/IP network. The NL100 is not compatible with Modbus systems.

Function

Communication from the base station computer to the device is supported for Campbell Scientific's array-based dataloggers using our datalogger support software PC400 and LoggerNet. The actual communication rate is dependent on the datalogger model.

The NL100 can support multiple dataloggers connected to its different ports.

Configuration

The NL100 interface is set up via a serial connection (RS232 port) or by remote access via the network port, (if enabled). TCP/IP address and access ports are user configurable.

The device also has user-loadable operating systems to cater for future upgrades.

Mounting

The NL100 can be mounted directly to the backplate of a standard Campbell Scientific enclosure. By using short haul modems, RF or MD485 links the NL100 can be located several km from the datalogger, if required.

Approval (EMI & ESD Protection)

Both devices meet the requirements for a Class A device under European Standards (see specification box).

Specifications

Communication Speeds
Up to 115,200 baud depending on the datalogger model.

Interfacing / Connections
To the computer via a 10baseT ethernet (RJ45) connector.
To the datalogger via the RS232 DTE port 9-way 'D' connector or special Campbell Scientific CS I/O port.

To RS485 networks via two screw terminals (2-wire half duplex).

Operating System
User-loadable, allowing easy upgrades for future development.

Power Requirements
12V DC supplied via wall charger or datalogger's 12V DC power supply.

Typical Current Drain
Power consumption: ~140mA continuous.

Physical
Temperature Range: -25°C to +50°C

Dimensions: 235 x 108 x 25.4mm

A mounting bracket for ENC style enclosures is supplied.

EMI & ESD Protection
Meets requirements for a Class A device under European Standards

Application of Council Directive(s) 89/336/EEC as amended by 89/333/EEC and 93/68/EEC.

Standards (declared conformity): ENC55022-1:1995 and ENC50082-1:1992

Optional Items
Standard DB9 Null Modem cable (2 metres approx) – required to configure the NL100 from a PC's RS232 port.

DB9 female to DB9 male cable (2 metres approx.)

12V/250 mA AC adaptor

PC400 or LoggerNet datalogger support software

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