NL115

Ethernet Interface and CompactFlash® Module

CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

Campbell Scientific's NL115 enables 10baseT Ethernet communications and stores data on a removable CompactFlash® card. This small, rugged communication device connects to the 40-pin peripheral port on a CR1000 or CR3000 datalogger.

Ethernet Communications

The NL115 allows the datalogger to communicate over a local network or a dedicated Internet connection via TCP/IP. A 10baseT Ethernet straight through cable is used when the cable is run from a hub to the NL115. A 10baseT Ethernet crossover cable is used if the cable is run directly from the computer to the NL115. For cable lengths longer than 9 ft, the 10baseT Ethernet cable must be shielded.

The NL115 is set up using the Device Configuration utility (DevConfig). DevConfig is bundled with our PC400, RTDAQ, and LoggerNet software and can also be downloaded, at no charge, from: www.campbellsci.com/downloads

Data Storage on CompactFlash Cards

CF Cards[1]

One Type I or Type II CompactFlash (CF) card fits into the NL115's card slot. Campbell Scientific offers and recommends CF cards manufactured by Silicon Systems. Silicon Systems cards are industrial-grade and have passed our ESD testing. Only industrial-grade CF cards with a storage capacity of 2 Gbytes or less should be used with our products.

Data Retrieval

The NL115/CF card combination can be used to expand the datalogger's memory, transport data/programs from the field site(s) to the office, and store JPEG images when the CC640 digital camera is connected to the datalogger. You can retrieve data stored on the card through a communications link with the datalogger or by removing the card and carrying it to a computer. The computer can read the CF card either with the computer's PCMCIA slot and the CF1 adapter or the computer's USB port and the 17752 Reader/Writer.

Ordering Information

Model	Description
NL115	Ethernet Interface and CompactFlash Module for CR1000 or CR3000.
Ethernet Cables	
13658	10baseT Ethernet straight through cable (7 ft)
13659	10baseT Ethernet crossover cable (7 ft)
CompactFlash Cards	
CFMC64M	64 Mbyte Industrial-grade CompactFlash Memory Card manufactured by Silicon Systems
CFMC256M	256 Mbyte Industrial-grade CompactFlash Memory Card manufactured by Silicon Systems
CFMC1G	1 Gbyte Industrial-grade CompactFlash Memory Card manufactured by Silicon Systems
CFMC2G	2 Gbyte Industrial-grade CompactFlash Memory Card manufactured by Silicon Systems
Reader/Writer or Adapter	
17752	USB 2.0 Reader/Writer for Memory Cards
CF1	SanDisk® CompactFlash Adapter for PCMCIA Slots

[1]*Only industrial-grade CF cards with a storage capacity of 2 Gbytes or less should be used with our products. For more information about CompactFlash cards, refer to www..campbellsci.com/documents/apnotes/pc_cf_cards.pdf*

Specifications

NL115

Power Requirements: 12 V supplied through the datalogger's peripheral port

Current Drain
- 20 mA (CR1000 w/NL115 communicating over Ethernet)
- 43 mA (CR1000 w/NL115 communicating over Ethernet and accessing CF-card)

Temperature Range: -25° to +50°C standard, -40° to +85°C extended

EMI and ESD Protection:
- Meets requirements for a class A device under European Standards
- Application of Council Directive(s):
  - 89/336/EEC as amended by 89/336/EEC and 93/68/EEC
- Standards to which conformity is declared:
  - EN55022-1; 1995 and EN50082-1: 1992

Typical Access Speed: 200 to 400 kbytes s^{-1}

Memory Configuration: user-selectable for either ring (default) or fill-and-stop

Datalogger Operating System:
- CR1000 operating systems Version OS9 or later; compatible with all CR3000 operating systems

Software Requirements:
- LoggerNet 3.2 or later
- PC400 1.3 or later
- DevConfig 1.5 or later

CE Compliant

Cable Requirements: Ethernet cable must be shielded if the length is greater than 9 ft.

CF Card Requirements:
- Industrial-grade
- Storage capacity of 2 Gbytes or less

Dimensions: 4.0" x 3.3" x 2.6" (10.0 x 8.3 x 6.5 cm)

Weight: 5.4 oz (154 g)

CFMC64M, CFMC256M, CFMC1G, and CFMC2G

Manufacturer: Silicon Systems

Card Description: industrial-grade CF cards that passed Campbell Scientific's ESD testing

Storage Capacity:
- 64 Mbyte, 256 Mbyte, 1 Gbyte, or 2 Gbyte

Temperature Range: -40° to +85°C

Card Format: FAT32

CF1 Adapter

Dimensions: 3.4" x 2.1" x 0.2" (8.6 x 5.4 x 0.5 cm)

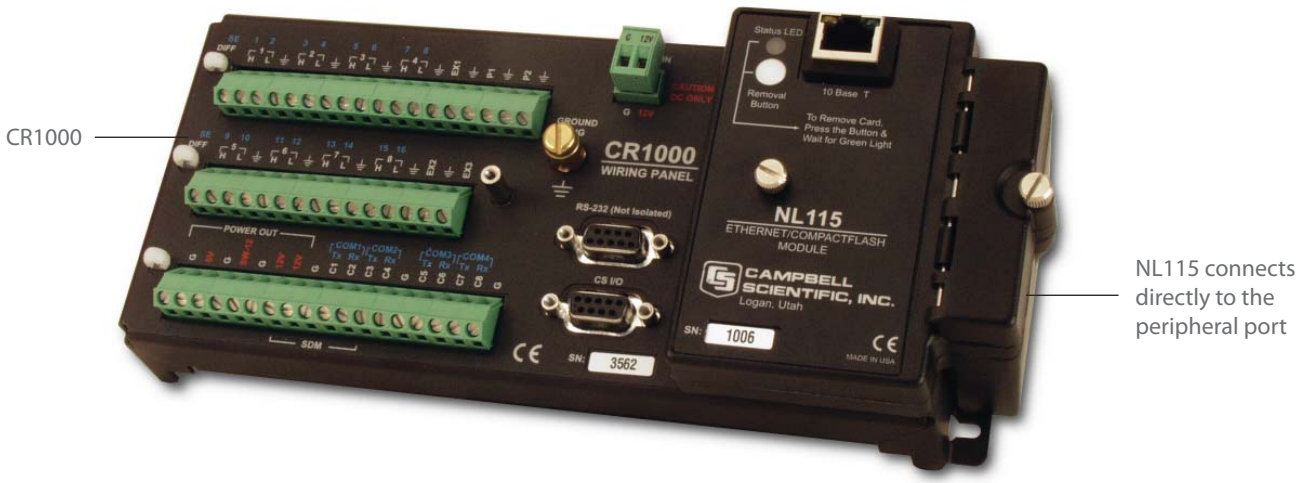
17752 USB Reader/Writer

Minimum Computer Requirements:
- Windows Vista, XP (SP1, SP2), 2000 (SP4) or MAC OS X v. 10.3.x+
- USB 2.0 port

CE Compliant

Dimensions: 3.5" x 2.7" x 0.75" (8.9 x 6.9 x 1.9 cm)

Weight: 3.6 oz (102 g)



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