



Wi-Fi Network Link

Extremely low power consumption

Overview

The NL240 is a wireless networking peripheral that provides Wi-Fi connectivity to our dataloggers and peripheral devices over standard 802.11b/g/n networks. It is a low-power device that offers unique and powerful PakBus networking

capabilities, but it is easy to configure. The NL240 provides direct access to all the IP capabilities of the CR800, CR1000, and CR3000 dataloggers.

Benefits and Features

- ▶ Low power consumption
- ▶ Wi-Fi-to-CS I/O bridging provides direct access to Internet protocol capabilities of CR6, CR800, CR850, CR1000, or CR3000 dataloggers
- ▶ Powerful PakBus routing capabilities
- ▶ Serial server functionality for networking Campbell Scientific devices, as well as third-party devices
- ▶ Provides IP connectivity for communication with LoggerLink smartphone app and LoggerNet PC software

Technical Description

Ordering Information

Network Link Interface NL240 Wi-Fi Communications Peripheral - shipped with an SC12 cable for connecting to the datalogger's CS I/O port, and hardware for mounting to an enclosure backplate

Power Peripherals

One of the following is required to power the NL240 if the device is not connected to the datalogger's CS I/O port. 004248 AC/DC adapter that can power the NL240

independently from an AC power outlet. 006725 Field power cable allows the NL240 to be powered from a 12 Vdc source.

Antennas and Antenna Cables

An antenna is required to use the NL240 009961 Unity gain (0 dBd), 1/2 wave whip, omnidirectional antenna, which features an articulating knuckle joint that can be oriented vertically or at right angles. 009962 Waterproof enclosure mount antenna. Serial Cable #10873 DB9 Female to DB9 Male Cable (1.82 m) – connects the NL240 to the datalogger's RS-232 port.

Specifications

Compliance	CE compliant
Material	Aluminum case with black anodized finish
Configuration	<ul style="list-style-type: none"> › Device Configuration Utility over USB or Wi-Fi › Terminal menu over Telnet › Terminal menu over RS-232
CS I/O Port	SDC 7, 8, 10, or 11 (does not support ME)
RS-232 Port	DTE, DB9 Male
USB Port	Micro-B
Operating Temperature Range	<ul style="list-style-type: none"> › -25° to +50°C (standard) › -55° to +85°C (extended)
Power Connector	CS I/O Port, DC barrel connector (not powered over USB)
Powered Over	CS I/O or barrel plug
Supply Voltage	7 to 20 Vdc
Connections/Routes Supported	<ul style="list-style-type: none"> › Supports 50 simultaneous TCP connections. › PakBus Router supports 50 routes. › Up to 10 of the 50 TCP connections can be used for TLS. › 15 Modbus Server Transactions (maximum)
Dimensions	16 x 6.73 x 2.54 cm (6.3 x 2.65 x 1 in.)
Weight	177 g (6.3 oz)

Communication Rate

RS-232 Port	1200 bps to 115.2 kbps
CS I/O Port	9600 bps to 460.8 kbps

WLAN

Antenna Connector	RPSMA
Technologies Supported	802.11b/g/n, WPA, WPA2 /TKIP or AES, WEP, WEP(open), APIPA/ AutoIP, IPv4, IPv6, ICMP/Ping, ICMPv6/Ping, TCP, DHCP Client, SLAAC, DNS Client, HTTPS Proxy, Telnet Server, TLS, PakBus, Modbus, TCP/IP
Topologies	Infrastructure and ad-hoc
Transmit Power	7 to 17 dBm (5 to 50 mW)
Rx Sensitivity	-97 dBm (< 8% PER)
Frequency	2.4 to 2.5 GHz (2.4 GHz ISM band)

Power Consumption

Maximum	950 mW
Typical (Always On)	<ul style="list-style-type: none"> › 670 mW (communicating) › 600 mW (idle) › 65 mW (searching for out-of-range network)
Typical (Low Power Mode Enabled)	<ul style="list-style-type: none"> › 73 mW (idle) › 480 mW (communicating) › 50 mW (searching for out-of-range network)
Sleep	16 mW

For comprehensive details, visit: www.campbellsci.eu/nl240 



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