

NetLinx® Controllers

NI-3100 NetLinx®

Integrated Controller



With the ability to integrate a large number of devices, the NI-3100 controls a wide variety of components including audio/video conferencing, projectors, VCR and DVD players, lights, thermostats and other electronic equipment found in larger areas. With these technology-driven environments, the NI-3100 also provides solutions for future expansion and enables the addition of more devices and control capabilities. Offers higher performance with an ultra-fast processor and 64MB of onboard RAM.

LARGER, MULTIPLE ROOMS

The NI-3100 Controller is ideally suited to the requirements of larger areas or multiple rooms with advanced control and automation features. Integrated Device Discovery also simplifies system programming by standardizing device and function definitions, default touch panel button assignments, and control and feedback methods.

- 8 IR / Serial output ports
- 8 Digital I/O channels
- 8 Relay channels
- 7 Configurable RS-232 / RS-422 / RS-485 Serial ports
- Optional ICSNet Capability (requires optional ICSNet card)
- 1 Ethernet 10/100 Port
- 1 AxLink Connector
- 404 MIPS processor speed
- 64 MB RAM
- 128 MB CompactFlash (upgradeable to 1 G)
- 1 MB Non-Volatile Memory
- Device Discovery enabled



NI-3100 (FG2105-05)

POWER

900 mA @ 12 VDC

MEMORY

- 64 MB SDRAM
- 1 MB of Non-volatile SRAM
- 128 MB Compact Flash (upgradeable to 1 GB factory programmed)

ENCLOSURE

Metal with black matte finish

DIMENSIONS (HWD)

- 3 1/2" x 17" x 3 1/2" (8.8 cm x 43.2 cm x 8.8 cm)
- 2 rack unit high

WEIGHT

4.55 lbs (2.06 kg)

CERTIFICATIONS

- FCC Part 15 Class B
- CE
- IEC 60950

PROCESSING POWER

- 32-bit microprocessor
- 404 MIPS
- Real-time operating system

FRONT PANEL COMPONENTS:

LED INDICATORS

- LNK/ACT: Green LED lights when the Ethernet cables are connected and terminated correctly and blinks when receiving Ethernet data packets.
- Status: Green LED blinks to indicate that the system is programmed and communicating properly.
- Output: Red LED blinks when the Master transmits data, sets channels on and off, sends data strings, etc.
- Input: Yellow LED blinks when the Master receives data from button pushes, strings, commands, channel levels, etc.

RS-232/422/485 LEDS

- Seven sets of red and yellow LEDs light to indicate Ports 1-7 are transmitting or receiving RS-232, 422, or 485 data
- TX LEDs (red) blink when transmitting data.
- RX LEDs (yellow) blink when receiving data.
- LED activity reflects transmission and reception activity

RELAY LEDS

Eight red LEDs light to indicate the relay channels 1-8 are active (closed) on Port 8.

IR/SERIAL LEDS

Eight red LEDs light to indicate the IR/Serial channels 1-8 are transmitting control data on Ports 9-16.

I/O LEDS

Eight yellow LEDs light when the I/O channels 1-4 are active on Port 17.

REAR PANEL COMPONENTS:

POWER CONNECTOR

2-pin (male) green captive-wire connector for 12 VDC power supply.

ETHERNET 10/100 PORT

- RJ-45 Ethernet 10/100 connector. Automatically negotiates connection speed and whether to use half or full duplex mode.
- Ethernet Protocols used by NI-3100:
 - ICSP - peer to peer protocol used for both master-to-master and master-to-device communications.
 - ICMP - To connect over a network, ping an NI-3100.
 - Telnet - NetLinX telnet server provides a mechanism to configure and diagnose a NetLinX system.
 - HTTP - NI-3100 has a built-in web server that complies with the HTTP 1.0 specification and supports all of the required features of HTTP v1.1.
 - FTP - NI-3100 has a built-in FTP server that conforms to RFC959.
 - integration! Solutions - integration! Solutions feature uses port 10500 for the XML based communication protocol.

AXLINK CONNECTOR

- Black 4-pin (male) captive-wire connector for connecting external AxLink devices
- Axlink - 4-wire network (20.8 kbps) connects up to 255 Access devices, operates up to 3,000 feet of wiring and supplies 12 VDC power.

PROGRAM PORT

DB-9 (male) connector that supports RS-232 communications to a PC for system programming and diagnostics.

CONFIGURATION DIP SW

8-position DIP switch for setting the baud rate for Program Port. Baud rate settings are: 9600, 38,400 (default), 57,600, and 115,200 bps.

ID BUTTON

Pushbutton sets device address ID (in conjunction with NetLinX Studio v1.2 build 200 or higher).

RS-232/422/485: (PORTS 1-7)

Seven RS-232/422/485 control ports using DB-9 (male) connectors with XON/XOFF (transmit on/transmit off), CTS/RTS (clear to send/request to send), and 300-115,200 baud.

RELAY (PORT 8)

- 8-channel single-pole single throw relay ports
- Each relay is independently controlled
- Supports up to 8 independent external relay devices.
- Each relay can switch up to 24 VDC or 28 VAC @ 1 A.

DIGITAL I/O (PORT 17)

- 8-channel binary I/O port for contact closure
- Each input is capable of 0-5 VDC voltage sensing. Input format is software selectable

IR/SERIAL (PORTS 9-16)

- Each output is capable of two electrical formats: IR or Serial
- Eight IR/Serial data signals can be generated simultaneously
- Supports up to 1.142 MHz carrier frequency

INCLUDED ACCESSORIES

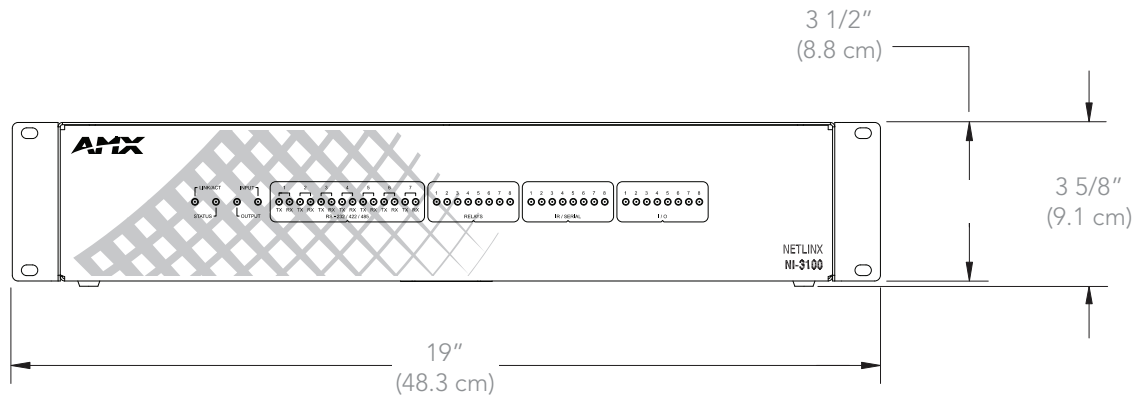
- NI-3100 Quick Start Guide
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- Two 8-pin mini-Phoenix female connectors (41-5083)
- 10-pin mini-Phoenix female connector (41-5107)
- Two CC-NIRC IR Emitters (FG10-000-11)
- Two removable rack ears (62-2105-07)
- One Relay Terminal Common Strip (41-2105-01)
- Four rack mount screws (80-0186)
- Four washers (80-0342)

OPTIONAL ACCESSORIES

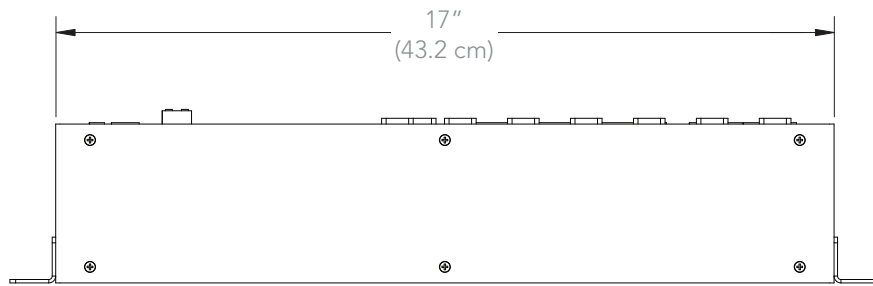
- NXA-ICSNet Card (FG2105-10)
- CSB Cable Support Bracket (FG517)
- PSN6.5 - 12 VDC Power Supply (FG423-41)
- CC-N232 RS232/422 Cables
- CC-NIRC IR Cables (FG10-000-11)
- CC-NREL Relay Cables
- CC-NSER IR/Serial Cables
- Upgrade Compact Flash (factory programmed with firmware):
 - NXA-CF2NI256M - 256 MB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-47)
 - NXA-CF2NI512M - 512 MB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-48)
 - NXA-CF2NI1G - 1 GB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-49)
- STS, Serial to Screw Terminal (FG959)
- NCK, NetLinX Connector Kit (FG2902)
- 2-pin, 3.5mm Black Male Phoenix Connector (41-5021)



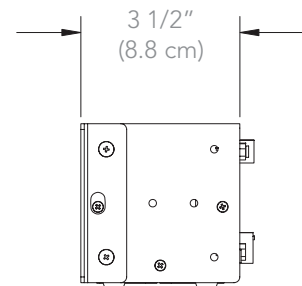
IT'S YOUR WORLD. TAKE CONTROL.



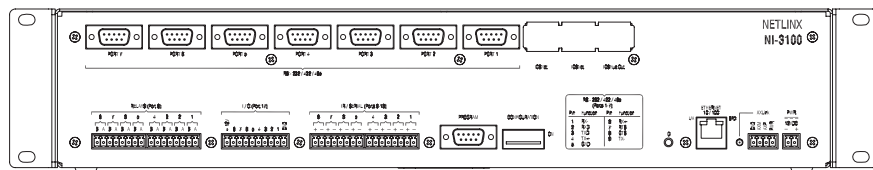
NI-3100
(Front View)



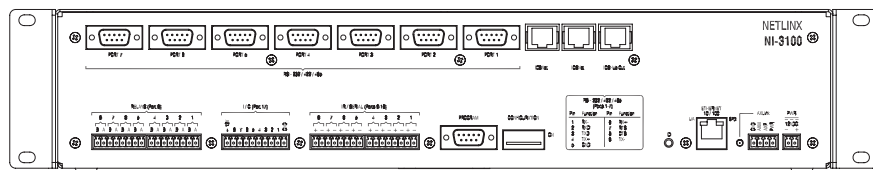
NI-3100
(Top View)



NI-3100
(Right View)



WITHOUT OPTIONAL ICSNET CARD INSTALLED
(Back View)



WITH OPTIONAL ICSNET CARD INSTALLED
(Back View)



IT'S YOUR WORLD. TAKE CONTROL.