

NetLinx® Controllers

NI-3101-SIG Signature Series NetLinx® Integrated Controller



The NI-3101-SIG satisfies control and automation requirements for large areas and multiple rooms with the capacity to integrate many electronic devices. Its sleek, sophisticated styling is ideal for placement on open shelves, tables, home theaters, or behind the scenes in a rack. Measuring just 1 rack unit (1U) high, the NI-3101-SIG frees up space for other components while extended rack depth (10") simplifies rear connections.

BEAUTY AND BRAINS

While the NI-3101-SIG is the nerve center of NetLinx control and the "brains of the operation," it looks as good as it operates. Featuring a sleek, gloss-black face, cool, blue power bar and blue and white status LEDs, its professional showroom finish allows it to be displayed prominently in home theater environments.

POWERFUL PROCESSING

With extremely fast 32-bit processing and 64MB of onboard RAM, the NI-3101-SIG is capable of processing thousands of control and automation commands per second. Whether your control requirements are simple or sophisticated, the NI-3101-SIG is fast, accurate and immediate. And it features a convenient USB programming port to simplify configuration.

- 8 – IR / Serial Ports
- 8 – Digital I/O
- 8 – Relays
- 6 – Configurable RS-232 / RS-422 / RS-485 Serial Ports
- 2 – Communication Networks: AxLink and 10/100 Ethernet (TCP/IP)
- Integrated USB programming port



NI-3101-SIG (FG2105-08)

POWER

900 mA @ 12 VDC

ENCLOSURE

Metal with black matte finish and translucent polycarbonate faceplate

DIMENSIONS (HWD)

1 3/4" x 17" x 10" (4.4 cm x 43.2 cm x 25.4 cm)

WEIGHT

5.90 lbs (2.68 kg)

ONBOARD MASTER

- Processing Power:
 - 32-bit microprocessor
 - 404 MIPS
 - Real-time operating system
- Memory:
 - Volatile – 64 MB
 - Non-Volatile – 1 MB
 - Flash – 256 MB
- Networking:
 - 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
 - Ethernet – Direct 10/100 BaseT Ethernet networking
- Ethernet Protocols used by NI-3101:
 - 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-3101
 - Telnet – NetLinx telnet server provides a mechanism to configure and diagnose a NetLinx system
 - HTTP – NI-3101 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-3101 has a built-in FTP server that conforms to RFC959
 - integration! Solutions – uses port 10500 for XML based communication protocol

CONTROL PORTS

- Six Serial data control ports (RS232/422/485), with XON/XOFF and CTS/RTS, 300-115,200 baud
- Eight IR/Serial ports for control of up to 1.142 Mhz carrier frequency
- Eight I/O channels for contact closure, 0-5 vdc voltage sensing, or interactive power sensing for IR ports
- Eight Relays - single-pole single throw relay ports, independently controlled

FRONT PANEL COMPONENTS:

LED INDICATORS

- LNK/ACT: Blue LED lights when the Ethernet cables are connected and terminated correctly and blinks when receiving Ethernet data packets

- Status: Blue LED blinks to indicate that the system is programmed and communicating properly
- Output: Blue LED blinks when the Master transmits data, sets channels on and off, sends data strings, etc.
- Input: White LED blinks when the Master receives data from button pushes, strings, commands, channel levels, etc.

RS-232/422/485 LEDs

- Six sets of blue and white LEDs light to indicate Ports 1-6 are transmitting or receiving RS-232, 422, or 485 data
- TX LEDs (blue) blink when transmitting data
- RX LEDs (white) blink when receiving data

RELAY LEDs

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

IR/SERIAL LEDs

Eight blue LEDs light to indicate the IR/Serial ports 9-16 are transmitting control data

I/O LEDs

Eight white LEDs light when the I/O channels 1-8 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

AXLINK CONNECTOR

Black 4-pin (male) captive-wire connector that provides data and power to external control devices (6 A max power rating)

PROGRAM PORT

USB connector that supports USB communications to a PC for system programming and diagnostics

CONFIGURATION DIP SW

4-position DIP switch

ID BUTTON

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

RS-232/422/485: (PORTS 1-6)

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

PRELIMINARY SPECS - SUBJECT TO CHANGE

RELAYS (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
- Two 8-pin mini-Phoenix connectors (3.5 mm) provide relay termination

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
- One 10-pin mini-Phoenix connector (3.5 mm) provide I/O port termination

IR/SERIAL (PORTS 9-16)

- Eight IR/Serial control ports support high-frequency carriers up to 1.142 MHz
- Each output is capable of two electrical formats: IR or Serial
- Eight IR/Serial data signals can be generated simultaneously
- Two 8-pin mini-Phoenix connectors (3.5 mm) provide IR/Serial port termination

INCLUDED ITEMS

- Removable rack ears allow for tabletop, under-counter, and front/rear rack mounting
- Removable feet give a finished look and provide spacing between stacked components
- Two 8-pin mini-Phoenix female connectors (41-5083)
- One 10-pin mini-Phoenix female connector (41-5107)
- Two CC-NIRC IR Emitters (FG10-000-11)
- One 4-pin 3.5 mm mini-Phoenix Axlink connector (41-5047)
- One 2-pin mini-Phoenix PWR connector (41-5025)
- One Relay Terminal Common Strip (41-2105-01)
- Four Rack mount screws (80-0186)
- Four washers (80-0342)

OPTIONS

- PSN6.5 - 12 VDC 6.5 Amp Power Supply (FG423-41)
- PSN4.4 - 12 VDC 4.4 Amp Power Supply (FG423-45)
- CC-232 RS232/422 Cables
- CC-NIRC IR Cables (FG10-000-11)
- CC-NET Cat5 Ethernet Cable (FG10-051-10)

ACCESSORIES

- STS, Serial to Screw Terminal (FG959)
- NCK, NetLinx Connector Kit (FG2902)
- 2-pin, 3.5mm Black Male Phoenix Connector (41-5021)

