



DeviceMaster® PNIO-2101

Part Number: 99604-0



KEY FEATURES AND BENEFITS

- Wide DC input voltage range (5-30 volts)
- DIN-rail mounting and screw terminal connections
- Wide operating temperature ranges (-40° C to 75° C)
- Surge protection for serial ports
- Variable power input
- Support for PROFINET IO
- Two serial ports with secure screw terminal connectors
- SSL & SSH management, SSL serial data stream encryption
- Software Controllable integrated 120Ω Termination Resistor for both the Transmit and Receive side in RS-422/485 Mode
- NEMA TS2 Certified
- UL Safety Certified

DEVICE SERVER

PRODUCT DESCRIPTION

Only the DeviceMaster PNIO-2101 Industrial Ethernet gateway offers a solution that configures in minutes via the web, allowing you to support PROFINET IO. Whichever protocol you need, the

DeviceMaster PNIO-2101 provides an RS-232, RS-422 or RS-485 software-selectable serial connection to an Industrial Ethernet network.



connect. communicate. control.

DEVICEMASTER SPECIFICATIONS

HARDWARE

Bus Interface Specification

10/100 BASE-T Ethernet

Memory

32MB SDRAM, 8MB Flash

Enclosure

UL94-V0 Plastic

Installation Method

DIN rail (35mm)

LED Indicators

Status, Ethernet Port Link/Activity

Dimensions

4.52" x 3.9" x 0.9"
114.81mm x 99.1mm x 22.86 mm

Product Weight

0.25lbs
113.4g

ELECTRICAL SPECIFICATIONS

Input Voltage Requirements

5-30VDC

Power Consumption (Max.)

1.5 Watts

Power Input Redundancy

Dual Redundant Power Input

ESD Surge Protection

Provides minimum of 25KV protection on all serial lines. All Ethernet components are rated to 1.5KV magnetic surge protection.

ENVIRONMENTAL SPECIFICATIONS

Air Temperature

System On -40° to 75°C
System Off -40° to 85°C

Operating Humidity

0% to 95%

Altitude

0 to 10,000 Ft
0 to 3,048 m

Mean time between failures

61.4 Years

SERIAL COMMUNICATIONS

Connector Type

DB9M

Number of Ports

1

Software Interfaces

RS-232
RS-422
RS-485
RS-485 2-Wire
RS-485 4-Wire Master
RS-485 4-Wire Slave

Termination Resistor for RS422/485

Software controllable 120Ω termination resistors available for each transmit and receive differential pair on every port. The 120Ω termination resistors can be enabled between TX+ and TX- OR RX+ and RX- or both on every port

Baud Rates

300 to 230 Kbps
Receive Buffer 4.5KB
Transmit Buffer 4.5KB

Device Driver Data Control

Data Bits 5, 6, 7 or 8
Parity Odd, Even, Mark, Space or None
Stop Bits * 1, 1.5 (with 5 stop bits), or 2

Flow Control
None, RTS/CTS, Xon/Xoff, Half-Duplex

* Stop bit 1.5: Supported only when used with 5 data bits

ETHERNET SPECIFICATIONS

Number of Ports

1

Speed

10/100Mbps

Connector Type

RJ45F Auto MDI/MDI-X

LED

Ethernet Link (Green)
Ethernet Activity (Amber)

Ethernet specific features

Ethernet packet switching, Auto Negotiation, Link/Activity Status LED

Network Protocols

ARP, BOOTP, DHCP/RARP, HTTP, HTTPS, SSH, SSL/TLS, ICMP, RFC 1006 (ISO over TCP), SNMP (MIB-II), TCP/IP & UDP socket services, Telnet, and TFTP, and supports IP multicast data transmission

PROFINET IO FEATURES

Supported PLCs

Including but not limited to:
Siemens SIMATIC S7-300, S7-400, S7-1200, S7-1500, and ET 200 CPUs that support the extended PROFINET diagnostics (listed here)

Key Features

- Connectivity – connect serial and Ethernet TCP/IP devices to PROFINET IO controllers and TCP/IP applications
- 8ms to 512ms IO cycle update time – supports high-speed devices and also ensures PLC can process each received data packet
- Intelligent packet identification – start and end of transmission character detection/removing/appending
- Received packet size control – truncate, drop, or save oversized packets as record data
- Large received packet support – up to 1518 bytes serial and 2048 bytes Ethernet TCP/IP
- Shared Device function – different ports can be shared between two PLCs

Diagnostics

Yes

GSDML file

Yes

FEATURES

SNMP Support

Monitoring Only

Other

PortVision DX remote management

Manufacturer's Warranty

5 Years

EXPORT INFORMATION

Packaged Shipping Weight

0.55lbs
249g

Package Shipping Dimensions

5-11/16" x 5-11/16" x 3-3/8"
144.46 x 144.46 x 85.73mm

UPC Code

7-56727-99604-0

Country of Origin

USA

ECCN

5A992

Schedule B Number

8471.80.1000

REGULATORY STANDARDS

Emissions

FCC Part 15 Subpart B
Class A limit
Canadian EMC Requirements
ICES-003

European Standard EN61000-6-4

European Standard EN55022

AS/NZS CISPR 22

Immunity

European Standard EN61000-6-2

European Standard EN55024:

IEC1000-4-2/EN61000-4-2: ESD

IEC1000-4-3/EN61000-4-3: RF

IEC1000-4-4/EN61000-4-4: Fast Transient/ Burst

IEC1000-4-5/EN61000-4-5: Surge

IEC1000-4-6/EN61000-4-6: Conducted Disturbance

IEC1000-4-8/EN61000-4-8: Magnetic Field

IEC1000-4-11/EN61000-4-11: Voltage Dips and Voltage

Variations

Safety

UL 61010-1, UL 61010-2-201

CSA C22.2 No. 61010-1-12

CSA C22.2 No. 61010-2-201:14

Other

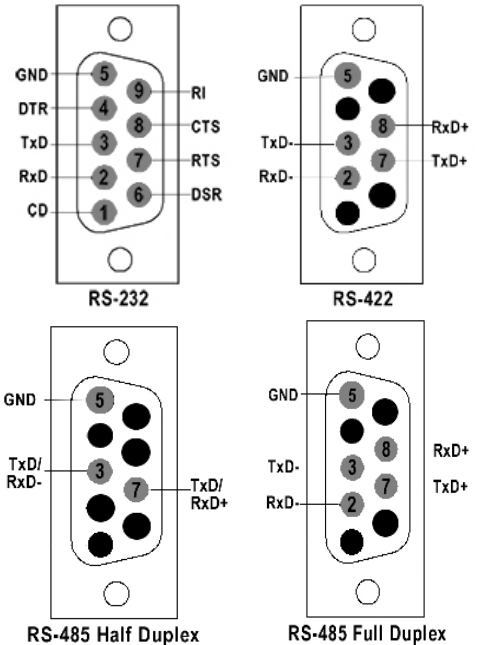
NEMA TS2 Compliant

RoHS2 compliant under CE

REGULATORY APPROVALS



PINOUT DIAGRAMS



Warranty Information

Control offers a 30-day satisfaction guarantee and 5-year limited warranty.

Sales Support

+1.763.957.6000
sales@comtrol.com

Technical Support

+1.763.957.6000
www.comtrol.com/support

Email, FTP, and Web Support

info@comtrol.com
ftp.comtrol.com
www.comtrol.com