

DeviceNet Network Interface Cards



DeviceNet NICs offer customers fast, robust and versatile integration with industrial DeviceNet networks. High-performance hardware combined with easy-to-use software provides users with an ideal solution to address their communication needs. While offloading networking tasks from the host system to the NIC hardware, Industrial DeviceNet NICs can significantly improve system performance, reduce CPU utilization, and enhance overall network efficiency in industrial environments.

ADVANTAGES AND FEATURES

Enables real-time control

The NICs signals in 3 to 5 milliseconds, which enables real-time control in data acquisition applications.

Provides simultaneous execution of scanner and adapter operations

The combined Group 2 Client (Scanner) and Server (Adapter) operations in one NIC allows implementation of control schemes where multiple functions may be required.

Boosts performance and reliability

The field-programmable gate array design lowers the component counts and results in an extended product lifecycle.

Reduces the effort and time required to implement Molex Common Industrial Protocol (CIP) Safety software stacks

The CIP Safety Server (Adapter) Integration enables compatibility with future applications and safety requirements.

Processor	64 MHz NIOS processor
Supply Voltage	PCIe NICs: 3.3V PCU NICs: 24V DC network, 3.3/5V bus PC/104 NICs: 5V
Communication Speeds	1 Mbaud (CAN only), DeviceNet 125, 250, 500 Kbaud
Net Weight	PCIe NICs: 0.229 kg PCU NICs: 0.226 kg PC/104 NICs: 0.140 kg
Network Connection	DeviceNet (5 pin)
Operating Temperatures	PCIe and PCU NICs: 0 to +60°C PC/104 NICs: 0 to +55°C

Accesses devices in less than 500 milliseconds on activation

The quick-connect capability of the NICs in Client (Scanner) mode helps access devices very quickly.



MARKETS AND APPLICATIONS

Industrial Automation

Automotive production lines
Semiconductors
Material handling systems
Food and beverage lines
Machine builders
Material handling solution manufacturers
CNC manufacturers
Water and wastewater treatment plants
Pulp and paper manufacturing equipment
Mining and metals sites
Agricultural systems
Robot cell control systems
Packaging line control systems
Substation control devices



Robot Cell Control Systems



Automotive Production Lines



Food and Beverage Lines

DeviceNet Network Interface Cards

SPECIFICATIONS

PCI Express

Reference Information

Packaging: Carton
RoHS: Yes
Low Halogen: Yes

Certifications and Approvals

ODVA Conformance Approved
RoHS, REACH
cUL, CE, KCC

Physical

Protocol: DeviceNet Scanner/Adapter
Communication Speeds: 1 Mbaud (CAN),
125, 250, 500 Kbaud (DeviceNet)
Net Weight: 0.229 kg
Network Connection Type: DeviceNet (5 pin)
Supported Operating Systems: Windows
Slot: PCI Express 1x
Form Factor: PCI Express 1.0a Compliant
Half-length, Half-Height PCB
Half- or Full-Height Bracket

Environmental

Storage temperature: -25 to +85°C
Operating temperature: 0 ° to 60°C
Humidity: 5 to 95% non-condensing

PCU

Reference Information

Packaging: Carton
RoHS: Yes
Low Halogen: Yes

Certifications and Approvals

ODVA Conformance Approved
RoHS, REACH
cUL, CE, KCC

Physical

Communication Speeds: 1 Mbaud (CAN),
125, 250, 500 Kbaud (DeviceNet)
Net Weight: 0.226 kg
Network Connection Type: DeviceNet (5 pin)
Supported Operating Systems: Windows
Slot: Universal (3.3V/5V) 32-bit PCI
Form Factor: 32-bit Universal PCI 2.0
Compliant
Half-length, Half-Height PCB
Half- or Full-Height Bracket

Environmental

Storage temperature: -25 to +85°C
Operating temperature: 0 to 60°C
Humidity: 5 to 95% non-condensing

PC/104

Reference Information

Packaging: Carton
RoHS: Yes
Low Halogen: Yes

Certifications and Approvals

ODVA Conformance Approved
RoHS, REACH
cUL, CE, KCC

Physical

Communication Speeds: 1 Mbaud (CAN),
125, 250, 500 Kbaud (DeviceNet)
Net Weight: 0.140 kg
Network Connection Type: DeviceNet (5 pin)
Supported Operating Systems: Windows
Slot: PC/104
Form Factor: Stackable PC/104

Environmental

Storage temperature: -25 to +85°C
Operating temperature: 0 to +55°C
Humidity: 5 to 95% non-condensing