

Open DeviceNet™ Connectivity for MicroLogix Family of Controllers

Making Distributed Intelligence an Affordable, Practical Reality



With the addition of DeviceNet functionality, the MicroLogix micro-PLCs extend the benefits of distributed control to the device level while capitalizing on installation and communication efficiencies inherent in the DeviceNet network.

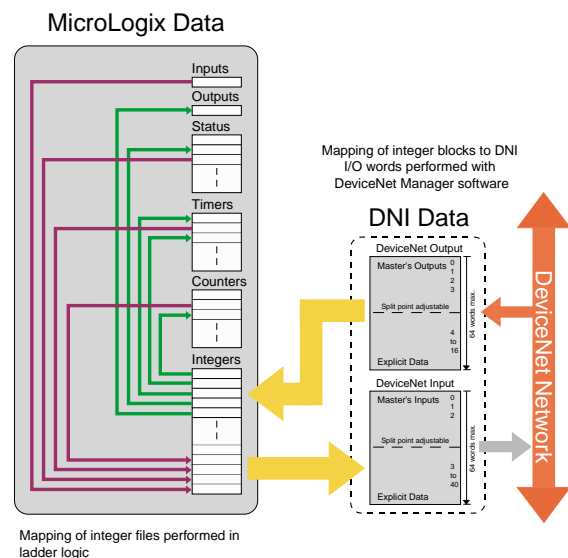
The main benefit of using DeviceNet lies in its use of “producer/consumer tech-

nology. This advanced technology significantly reduces the amount of “data traffic” on a network. Thus, the MicroLogix on DeviceNet has much improved data throughput; your valuable process information gets “across” the network quicker.

DeviceNet is likewise easier to implement than previous device-level networks. In the past, device-level components, such as sensors, actuators, PLCs, drives and operator interface terminals were laboriously connected via multiple discrete wires. DeviceNet, however, facilitates communication among industrial devices with a single cable that handles both communications and power distribution. That means lower installation and manufacturing costs.

1761-NET-DNI Series B Features:

- Allow MicroLogix controllers to function as slave nodes
- Mix high speed local control with distributed DeviceNet I/O
- Peer-to-peer messaging between Allen-Bradley controllers and other devices using the DF1 full-duplex protocol
- Programming and on-line monitoring over the DeviceNet network
- With a DNI (DeviceNet Interface) connected to a modem, you can “dial in” to any other DNI-Controller combination on DeviceNet
- Other DeviceNet products can execute explicit messaging with the DNI at any time
- Controllers can initiate an explicit (DeviceNet) message to any UCMM capable device



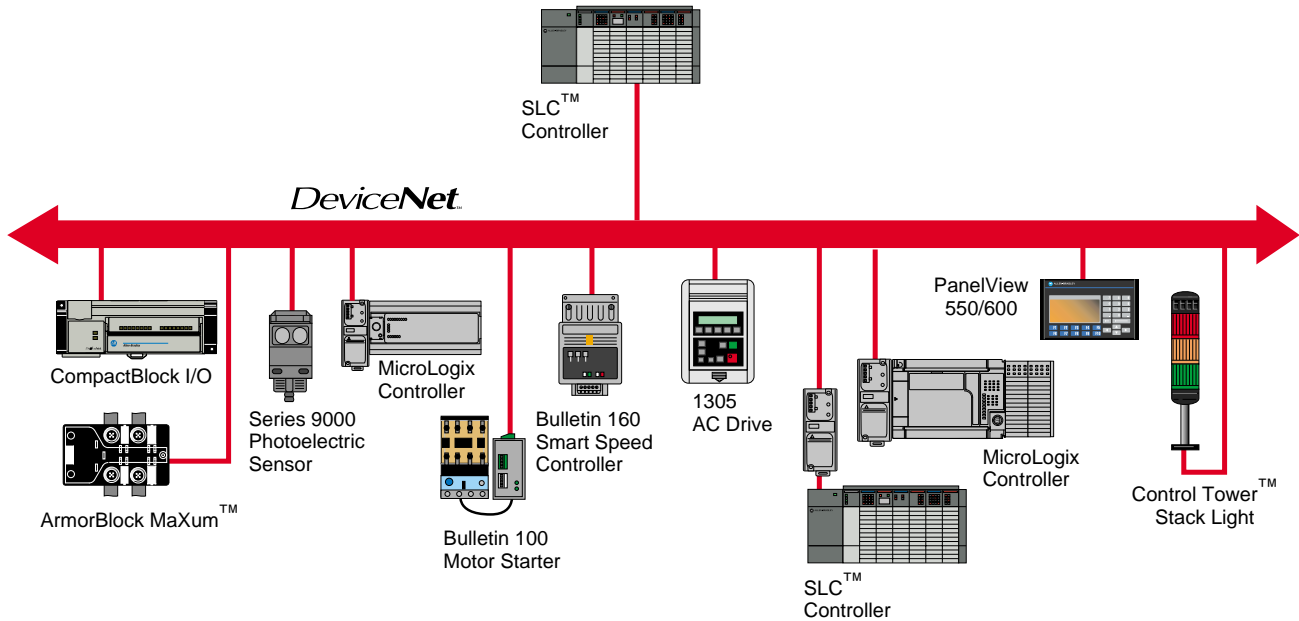
AB Parts



Bringing Together Leading Brands in Industrial Automation

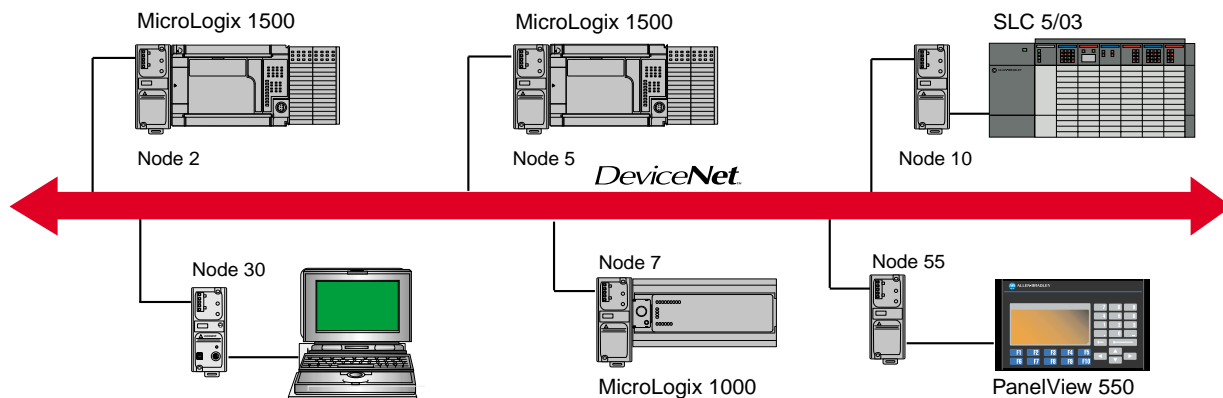
Advanced slave I/O functionality

Through the DNI, MicroLogix controllers can function as cost-effective distributed control on DeviceNet. The DNI supports polled (master initiated), cyclic (time based) and change of state (event driven) I/O to the DeviceNet master. The DNI polls and can accept data sent from the MicroLogix to keep its mapped I/O data up-to-date. All local I/O remains under the direct control of MicroLogix controllers.



Simple, reliable peer-to-peer messaging

The DNI brings new functionality to DeviceNet by enabling peer-to-peer messaging between devices that use the DF1 full-duplex protocol. Using standard messaging commands, you can easily read or write data to other controllers. This capability works between controllers, operator interface devices and between PCs for program up/downloading.



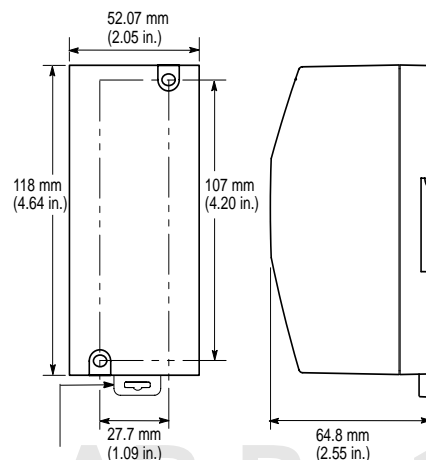
Physical Specifications

Description	Specification
24V dc Power Source Required	11 to 25V dc
Current Draw	200 mA at 24V dc 350 mA at 11V dc (400 mA maximum inrush for 30 ms at 24V dc)
Internal Isolation	500V dc
Ambient Operating Temp.	0°C to +60°C (+32°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +175°F)
Agency Certification	UL 1604 C-UL C22.2 No. 213 Class 1 Division 2 Groups A,B,C,D CE compliant for all applicable directives ODVA Conformance Version 2.0

DeviceNet Specifications

Feature	Y/N	Comments
Peer to Peer Messaging	Y	To other Controllers/DNI's, plus UCMM capable devices
I/O Assembly Explicit Messaging	Y	
I/O Peer to Peer Messaging (also known as Dynamic I/O)	N	
UCMM	Y	
Configuration Consistency Value	Y	
Deferred Delete	Y	
Faulted Node Recovery	Y	
DeviceNet Auto-Baud	Y	
Flash Upgradeable	N	
Baud Rate	All	125K, 250K, 500K
Master/Scanner	N	
I/O Slave:	Y	
Bit Strobe	N	
Polling	Y	
Cyclic	Y	
COS (change of state)	Y	
Flat cable	Y	
Configuration Tools	Y	RS Networks, DNI Utility

Dimensions



AB Parts

Enable your control strategy now

Helpful information and free DNI configuration software are also available at www.ab.com/micrologix. For more on the DeviceNet standard, visit www.odva.org.

The MicroLogix family of controllers feature discrete, analog, and expandable models — along with a broad range of input, output and communications options

Where can you benefit from MicroLogix speed, its powerful instruction set and flexible communications? Wherever your automation applications demand compact, cost-effective solutions.



Reach us now at www.rockwellautomation.com

Wherever you need us, Rockwell Automation brings together leading brands in industrial automation including Allen-Bradley controls, Reliance Electric power transmission products, Dodge mechanical power transmission components, and Rockwell Software. Rockwell Automation's unique, flexible approach to helping customers achieve a competitive advantage is supported by thousands of authorized partners, distributors and system integrators around the world.

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