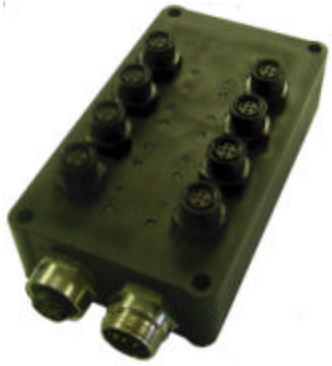
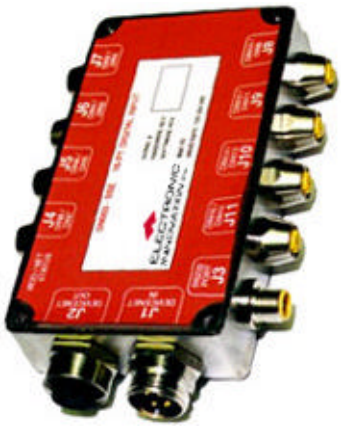
ELECTRONIC INNOVATION Inc.

DN003-OFE
DN003-PFE
DN003-SSE

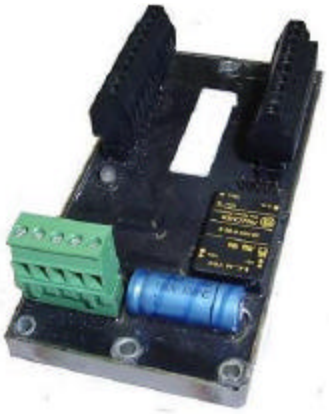
16 Point Isolated Digital Input Module



DN003-PFE



DN003-SSE



DN003-OFE

The Electronic Innovation Inc. “DN” line of modules is intended to provide rugged, reliable, *DeviceNet*™ I/O capability in unusually harsh environments. These include applications such as on-board control of heavy mobile equipment.

The DN line has been designed from the ground up to survive these environments with special attention in the following areas:

- Mechanical design for high shock, vibration, and concussion tolerance, resistance to liquids such as water or oil, and most forms of corrosion, along with wide operating temperature ranges.
- Electrical design to ensure reliable operation in the face of severe electrical transients, which can occur on vehicle electrical systems. All modules have been designed and tested according to automotive standard SAE J1113 and mil spec QSTAG-307
- Electronic design to minimize electromagnetic emissions and provide low susceptibility to external electromagnetic interference.
- Extensive design effort has been expended to ensure that hardware, software, or network faults, if and when they occur, will result in a predictable and timely transition of the module to the safest achievable state.

The DN003 *DeviceNet*™ Discrete Input Module provides a total of 16 inputs. These are well suited to monitor discrete inputs in a harsh mobile environment. The inputs have extensive protection circuitry to provide tolerance to electrical transients. Three of the sixteen inputs may be individually configured as frequency counters or pulse accumulators.

System-wide fail-to-safe design is facilitated by the ability to individually configure the hardware to either “pull-high” or “pull-low” in response to an unconnected input.

DeviceNet™ CONFORMANCE TESTED

DeviceNet Communications

Default MAC ID:	63, Software Selectable
Data Rates Supported:	125, 250, 500 kbps, Software Selectable
Master / Slave Connection Set:	Supported, Group 2 Only Server
Dynamic Connections (UCMM):	Not Supported
Fragmented Explicit Messaging:	Not Supported

DeviceNet Power Supply

Power Supply Voltage:	9 V to 65 V, continuous operating
Power Supply Isolation:	1.2 kV rms
Current Consumption:	200 mA @ 8.8 V Supply 150 mA @ 11.0 V Supply 80 mA @ 25.0 V Supply
Overvoltage Withstand:	120V, 20 seconds
Applicable Standards:	Exceeds QSTAG-307 & SAE 1113

Digital Inputs (nominal 24 VDC, 3 high speed pulse inputs)

Minimum Input Level:	-110V
Low Level Input:	4.8 V
High Level Input:	6.5 V
Maximum Input Level:	110 V
Input Current @24V:	250 µA Max
Pulse Input Mode:	Frequency Counter or Pulse Accumulator, Software Selectable
Maximum Frequency:	15 kHz
Maximum Count:	65,535

Environmental

Operating Temperature:	-40 °C to +85 °C
Storage Temperature:	-55 °C to +125 °C

Ordering Information

DN003-OFE	Potted into Open Frame stainless steel tray, Terminal block connectors
DN003-PFE	Potted into Polyurethane Enclosure, Micro-Style connectors for inputs
DN003-SSE	Potted into Stainless Steel Enclosure, Micro-Style connectors for inputs

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