GE
Digital Energy

DNP I/O Modules

fact sheet

Product Overview

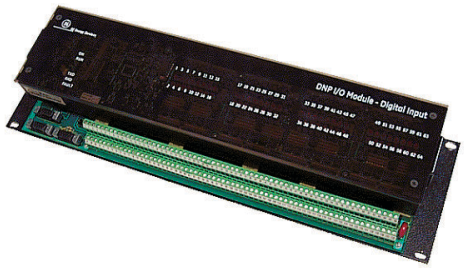
DNP I/O Modules are data collection and control devices that combine the latest in communications protocol technology with our industry proven hardware, resulting in a robust line of substation automation and control equipment.

The DNP I/O modules from GE Energy utilize the latest generation of D20 WESDAC and WESTERM components, with an added DNP communications module that installs on the WESDAC component. GE Energy has continued to update and enhance the performance of D20 A, S & K peripherals, which are now installed for a variety of applications at thousands of substations worldwide.

DNP I/O Modules use the industry standard DNP3 (IEEE® 1379-2000) protocol over a RS485 link to communicate with a variety of host systems, providing expandable I/O functionality for the D25, IP-Server and iBox product lines as well as third party products that support DNP3 protocol.

The following DNP I/O modules are available:

- DC Analog Input – 32 channel DC analog inputs
- Digital Input – 64 channel digital inputs
- Control – 32 channel digital output pairs



Applications

- Additional I/O for D25 IED & iBOX controller
- I/O for IP-Server Substation Server
- Substation Retrofit projects
- Standalone small RTU Projects
- Distribution Automation
- Transmission Automation
- Substation Auxiliary Services

Benefits

- Expand the I/O capacity of GE Energy products or other products
- Implement I/O for new automation applications such as volt/VAR control, auto-restoration, interlocking and load shedding
- Add or expand I/O for custom sequential control applications using LogicLinx* (IEC® 61131-3) on the GE Energy products
- Acquire additional substation data for non-operational applications
- Compact design uses minimal rack space (3 RU)
- Hot swappable WESDAC CPU and logic module from the WESTERM termination unit – simplifies troubleshooting and repairs

Features

- Industry standard DNP3 protocol (Level 2)
- RS485 allows for up to 10 modules on a single communication channel to a host device
- Leverages industry leading, substation hardened WESTERM termination modules
- Variety of connection types including compression, disconnectable compression, DB25, and barrier termination
- Substation hardened to ensure reliability

DNP

DNP3 (Level2) is a standards-based (IEEE Std 1379-2000) interoperability protocol that enables communication between substation computers, RTUs, IEDs and master stations. DNP I/O modules use of this protocol ensures communication and interoperability with a wide range of substation equipment.

DNP DC Analog Input Module

The DNP DC Analog Input Module provides terminations for each of the 32 analog inputs and sockets for analog scaling networks. Analog loop current can be supplied by the DNP I/O Module's power source, or from an external source.

DNP Control Module

The DNP Control Module provides up to 32 control outputs, optioned as:

- 32 trip/close pairs
- 32 individual controls
- 16 raise/lower pairs

The DNP Control Module has a Local/Remote switch, which can be manually operated to disable coil power to the DNP Control Module during maintenance. Control output power can be supplied from the DNP I/O Module's power source, or from an external source.

DNP Digital Input Module

The DNP Digital Input Module can be optioned to provide:

- 64 single status/SOE inputs
- 32 double status/SOE inputs
- 64 single counter inputs
- 32 double counter inputs
- Contact the factory for custom combinations

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For more information about this product, contact your GE Energy sales representative or visit gepower.com

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