

PRODUCT TECHNICAL REFERENCE

Allen-Bradley 1756-DNB

ControlLogix DeviceNet Bridge / Scanner Module

A chassis-based ControlLogix communication module for DeviceNet configuration, control and cyclic I/O data exchange.

Reference scope

This Apter Power reference consolidates model-specific facts from current Rockwell Automation product and installation literature. Use the physical nameplate, controller project and current Rockwell documentation as the final authority before installation or replacement.

Key functions

- ControlLogix chassis integration
- DeviceNet bridge and scanner operation
- Scan-list and I/O data coordination
- Local module and network diagnostics

Technical data

Parameter	Documented value
Product type	DeviceNet bridge / scanner module
Network	DeviceNet
Communication rate	125 / 250 / 500 Kbps
Maximum nodes	64
Chassis current draw	400 mA at 5.1 V DC
DeviceNet current draw	60 mA at 24 V DC
DeviceNet voltage range	11...25 V DC, Class 2 / SELV
Power dissipation	3.5 W
Operating temperature	0...60 deg C
Relative humidity	5...95%, noncondensing
Mounting	ControlLogix chassis; any slot

Commissioning checks

1. Verify the exact 1756-DNB catalog and series marking before replacement.
2. Isolate ControlLogix chassis and DeviceNet power before wiring or removal.
3. Set a unique node address and match the module communication rate to the network.
4. Verify the scan list, I/O mapping and controller project before returning the system to service.

Installation planning

Chassis and slot

Install the 1756-DNB in a ControlLogix chassis slot selected for the documented controller project. Confirm that the physical slot matches the configured module location before downloading the project.

DeviceNet power and connector

Provide 11...25 V DC Class 2 or SELV network power. Verify connector polarity, cable condition, shield practice and network termination before energizing the segment.

Node address and data rate

Assign a unique node address and select 125, 250 or 500 Kbps to match the installed DeviceNet network. A mismatched rate or duplicate node address prevents normal communication.

Controller project

Confirm the module series, chassis slot, scan list and I/O mapping in the ControlLogix project. Record the approved configuration before replacement or download.

Pre-energization checklist

1. Chassis power isolated and absence of voltage verified.
2. DeviceNet connector wiring, polarity and network power verified.
3. Unique node address and matching communication rate confirmed.
4. Scan list and controller I/O map reviewed against the installed devices.

Commissioning and diagnostics

Start-up sequence

Energize the chassis and network under controlled conditions. Confirm module initialization and verify that configured DeviceNet nodes reach the expected operating state.

Network verification

Compare the online node list with the approved scan list. Investigate missing, duplicated or unexpected nodes before enabling controller outputs.

I/O acceptance

Confirm input and output assemblies, I/O mapping and controller tags against the engineering record. Test representative field points before releasing the system.

Replacement acceptance

Record the catalog and series marking, chassis slot, node address, data rate and final module status. Retain the verified controller project with the maintenance record.

Operational limits

Parameter	Documented value
Operating temperature	0...60 deg C
Relative humidity	5...95%, noncondensing
Power dissipation	3.5 W
DeviceNet supply	11...25 V DC Class 2 / SELV

Application guidance

DeviceNet I/O scanning

Coordinates cyclic input and output data between a ControlLogix controller and configured DeviceNet nodes.

Controller-to-device data exchange

Provides the network interface used by the controller project to exchange scheduled and diagnostic data with DeviceNet devices.

Network configuration and maintenance

Supports documented node addressing, communication-rate selection, scan-list setup and replacement verification.

Official references

Rockwell Automation 1756-DNB official product record.

1756 ControlLogix Communication Modules Technical Data, publication 1756-TD003Q-EN-E.

ControlLogix DeviceNet Scanner Module Installation Instructions, publication 1756-IN065.

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MODEL REFERENCE

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