Allen-Bradley 1771-SDN

Technical Reference

01 Exact identity and system role

Allen-Bradley 1771-SDN is a two-channel DeviceNet scanner for a compatible PLC-5 and 1771 I/O installation. The photographed unit is Series B, firmware revision G.

Full reference	Allen-Bradley 1771-SDN
Document role	Apter Power technical reference
Installed system	PLC-5 / 1771 DeviceNet
Evidence scope	Series B identity and electrical nameplate values come from the pictured unit; the installation publication describes common 1771-SDN architecture and Series C replacement compatibility.

Functional position

This scanner bridges two DeviceNet networks to the PLC-5 through a 1771 I/O chassis; the pictured unit carries a Series B nameplate.

02 Interface and signal architecture

The 1771-SDN provides two DeviceNet channel connections. It exchanges field I/O information with the PLC through the 1771 backplane and requires a configured DeviceNet scan list and matching PLC logic. Treat the two channel networks independently when recording node addresses, data rates, trunk power and device configuration; the scanner is not itself a replacement for field network power.

The offered label states CAT. NO. 1771-SDN, SERIES B and FIRMWARE REV. G. It specifies 1.2 A from the 5 V DC backplane, with DeviceNet power no higher than 25 V DC and a maximum 90 mA draw for each channel. These are the pictured Series B values; do not substitute the lower Series C backplane figure from a later manual.

Catalog number	1771-SDN
Offered unit series	Series B
Offered firmware marking	Revision G
Function	Two-channel DeviceNet scanner
Processor interface	PLC-5 / 1771 backplane
Backplane supply	5 V DC

03 Technical data and configuration limits

Backplane current	1.2 A at 5 V DC, nameplate
DeviceNet power limit	25 V DC maximum, nameplate
DeviceNet draw	90 mA maximum per channel, nameplate
Network connectors	Two DeviceNet channel connections
Chassis family	Compatible 1771 I/O chassis
Replacement boundary	Series C uses a B-compatibility switch setting

Engineering boundary

Rockwell documents that a Series C scanner can replace Series A or B only when its configuration switch selects the earlier-series compatibility mode. For a Series B exchange, preserve chassis addressing, channel settings, network wiring, scan lists and PLC block-transfer mapping. Commission both channels and compare their actual network status before returning the machine to service.

04 Supported application patterns

Use case	Documented relationship
Dual network scanning	Use the two scanner channels for separately configured DeviceNet networks.
Mapped field I/O	Exchange configured field-device input and output data with PLC-5 logic through the chassis backplane.
Installed-base service	Retain the Series B node, rate, scan-list and block-transfer settings when replacing the photographed unit.
Series C replacement	Use Rockwell's compatibility-switch procedure before substituting a Series C scanner for Series B.

Commissioning relevance

The pictured 1771-SDN is Series B, firmware G; a Series C spare requires its documented earlier-series compatibility setting.

05 Engineering questions and source record

Exact-model question	Evidence-led answer
What is the function of Allen-Bradley 1771-SDN?	It is a two-channel DeviceNet scanner that exchanges configured field I/O data with a compatible PLC-5 system through a 1771 chassis.
Which series is shown on the offered Allen-Bradley 1771-SDN label?	The photographed unit is marked Series B, firmware revision G.
How many DeviceNet channels does Allen-Bradley 1771-SDN have?	The offered scanner has two DeviceNet channel connections, each requiring its own network settings and checks.
What backplane current is marked on Allen-Bradley 1771-SDN Series B?	The photographed Series B label specifies 1.2 A at 5 V DC.

Technical source

Rockwell Automation 1771-SDN DeviceNet Scanner Module Installation Instructions, 1771-IN014B-EN-P; offered 1771-SDN Series B nameplate

Discuss the complete reference

Allen-Bradley 1771-SDN

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