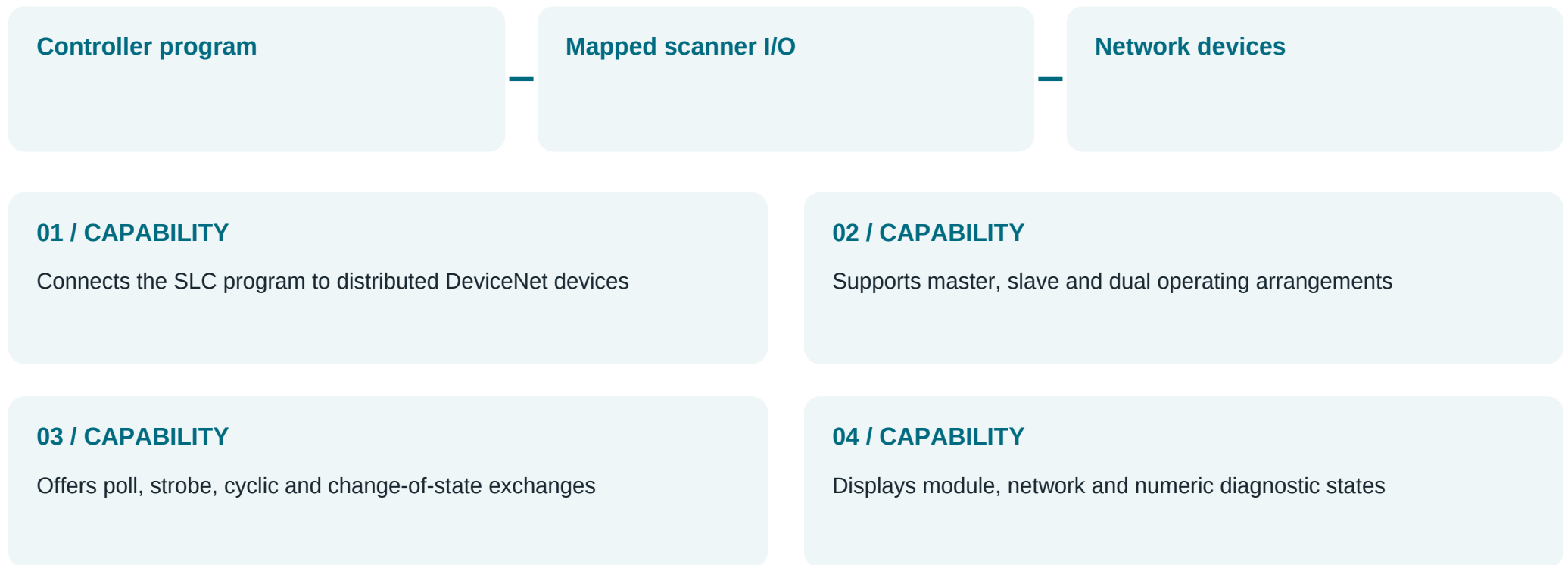


Allen-Bradley 1747-SDN

DeviceNet Scanner Module

Allen-Bradley 1747-SDN is an SLC 500 DeviceNet scanner that exchanges mapped network I/O data with an SLC processor.



The scanner occupies an SLC 1746 chassis slot alongside the processor. RSNetWorx scan-list mapping defines the network data exchanged with the controller application.

Match the hardware series, firmware, chassis position, network supply and scan-list configuration before replacement. A remote chassis using a 1747-ASB adapter does not support the required M-file transfer.

Allen-Bradley 1747-SDN

Technical data / operating boundaries

Host platform	SLC 500 / SLC 1746 chassis
Interface	DeviceNet
Supported processor	SLC 5/02 or later
Module modes	Null / Master / Slave / Dual
I/O exchange types	Poll / Strobe / Change of State / Cyclic
Default node address	63
Default data rate	125 kbps
Backplane supply (Series D)	5 V DC
Backplane current (Series D)	500 mA
Network supply (Series D)	24 V DC Class 2
Network current (Series D)	90 mA

Continuous isolation (Series D)	30 V, basic insulation
Isolation test (Series D)	500 V AC, 60 s
Operating temperature (Series D)	0 to 60 C
Storage temperature (Series D)	-40 to 85 C
Humidity (Series D)	5 to 95%, non-condensing
Connector (Series D)	1787-PLUG10R, 10-pin linear plug
Connector torque (Series D)	0.6 to 0.8 N m
Enclosure (Series D)	Open style
Series A/B firmware	Up to FRN 7.006
Series C firmware	FRN 8.001 to 8.006
Series D firmware	FRN 9.001 and later

Allen-Bradley 1747-SDN

Integration / configuration decisions

Distributed DeviceNet I/O

Transfers configured field-device I/O to the SLC program through scanner mapping.

Controller data exchange

Uses slave mode when the SLC station must exchange data with one network master.

Traffic scheduling

Applies cyclic or change-of-state exchange to the configured device communication pattern.

Network adjustment

Supports pass-through node adjustment when processor, firmware and M-file prerequisites are satisfied.

Series A/B: ≤ 7.006

Series C: 8.001-8.006

Series D: ≥ 9.001

Install 1747-SDN outside the leftmost processor slot. Match firmware to the scanner series; Series A/B, C and D do not share the same supported firmware branch.

Allen-Bradley 1747-SDN

Model-specific engineering questions

Can 1747-SDN operate in a remote chassis with a 1747-ASB adapter?

No. That adapter cannot transfer the M-files required by the scanner.

Which slot must remain free of 1747-SDN in an SLC chassis?

The leftmost slot is reserved for the SLC processor.

Why does an unrecognized 1747-SDN need an EDS file?

RSLinx Classic and RSNetWorx use the EDS to identify the scanner. Embedded EDS upload is available from FRN 8.002.

What distinguishes cyclic exchange from change-of-state on 1747-SDN?

Cyclic exchange uses a timed interval; change-of-state sends changed data and a configured heartbeat.

How should numeric code 92 on 1747-SDN be investigated?

Check the DeviceNet supply and drop cable: code 92 means network power is absent.

Does 1747-SDN pass-through replace a dedicated DeviceNet configuration adapter?

No. Pass-through serves network adjustment; complete configuration and real-time monitoring use the supported network adapter connection.

Can every 1747-SDN series use the same firmware?

No. A/B stop at 7.006; C uses 8.001-8.006; D uses 9.001 onward.

How does slave operation change 1747-SDN data exchange?

The scanner exchanges data with one master, using the configured scan list and mapping.

DIAGNOSTIC TRIAGE / KEEP SUPPLY AND BUS FAULTS SEPARATE

Code 92 directs the first check to DeviceNet supply and the scanner drop cable. Code 91 directs investigation to bus-off conditions, physical connections, failed devices and interference. Record the observed code before restoring network operation.

Allen-Bradley 1747-SDN

Service boundaries and related SLC portfolio

- 01 Place the connected SLC process in its controlled maintenance state before scanner work.
- 02 Remove chassis power before inserting or removing the module.
- 03 Keep the leftmost processor slot reserved; do not use a 1747-ASB remote chassis.
- 04 Record the node address, data rate, scan list and input/output mapping.
- 05 Use grounded ESD handling and protect the backplane contacts.
- 06 Check the DeviceNet network supply and linear-plug wiring before reconnecting.
- 07 Preserve the hardware-series firmware branch and the correct EDS registration.
- 08 Restore power, inspect module/network codes and prove the configured I/O exchange.

1747-SDN DeviceNet Scanner Module Installation Instructions

1747-IN058F-EN-P, December 2010 - series-specific limits retained where applicable.

[View Allen-Bradley 1746-IV32 page](#)

[View Allen-Bradley 1746-NIO4V page](#)

[View Allen-Bradley 1746-OAP12 page](#)

[View Allen-Bradley 1746-OBP16 page](#)

[View Allen-Bradley 1746-OG16 page](#)

[View Allen-Bradley 1746-OV32 page](#)

[View Allen-Bradley 1746-OW4 page](#)

[View Allen-Bradley 1747-DCM page](#)

CONTACT APTER POWER

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



1747-SDN