Allen-Bradley 1747-SN

The Allen-Bradley 1747-SN is a SLC500 Remote I/O (RIO) scanner module. This module is primarily designed to implement high-speed data transfer between SLC500 processors, Human Machine Interface (HMI) and other automation devices. This module has One (1) Remote I/O communication port used to communicate with RIO adapters in the RIO network. Adequate communication for use with this module is Belden 9463 cable and capable of up to to 3050 m or 10000 ft. Technical specifications for 1747-SN

Manufacturer <a href=

Operating Temperature 0-60 Celsius

Backplane Current (5 Volts) 600 milliamps

Compatible Processors SLC 5/02, 5/03, 5/04, 5/05

Scan I/O Yes

Module Type Remote I/O (RIO) Scanner Module

Brand Allen-Bradley

Part Number/Catalog No. 1747-SN

Series SLC 500

No. of Ports One (1)

Communication cable Belden 9463

Maximum RIO cable length 3048 meters (10000 ft.)

Storage Temperature -40° C to +85° C (-40° F to +185° F)

Relative Humidity 5 to 95% without condensation

Agency Certification UL / C-UL listed Class I, Division 2, Groups A, B, C, D CE marked for all applicable directives C-Tick marked for all applicable acts

Backplane Current (24 Volts) 90 milliamps

Weight 1 pound (0.45 kilograms)

Chassis Module Slots 30

Communication Remote I/O

Backup Memory Flash

UPC 10662073876929 Description

The 1747-SN is an Allen-Bradley communication module that is used to implement Remote I/O (RIO) communication between RIO protocol enabled devices such as PanelView graphic operator terminals, message display, SLC500 controllers, other Programmable Logic Controller (PLC) and 3rd party devices such as gateways and protocol converters. This communication module is specifically a Scanner module, communicating with compatible RIO adapter modules to request I/O status update, messages and diagnostics over the RIO network.

The 1747-SN comes with One (1) RIO communication port. This port is a Three (3) pin terminal that requires a specific communication cable such as the Belden 9463 cable. RIO protocol may be implemented physically at a maximum wire length of 3050 meters or 1050 ft where supported

connections are up to Sixteen (16) devices when operating in normal mode and Thirty-Two (32) devices in complementary mode. This scanner module is able to transfer data at a transmission rate of 57.6 Kbaud with cable length of 3048 meters and 230.4 Kbaud rate with cable length of 762 meters. Devices are connected in daisy-chain topology with both ends terminated using an 82 Ohm resistor.

The 1747-SN supports downloading, uploading and commissioning of the SLC500 controller as well as data transfer to connected graphic terminal in the network. It also supports remote I/O passthru.

The 1747-SN uses the node’s extended capability to transfer information in the communication channel at a rate of 57.6 Kbaud through a cable length of 3048 meters (10,000 feet) and at a rate of 230.4 Kbaud through a maximum distance of 762 meters (2500 feet) cable using an 82-Ohm terminating resistor. Information is also transmitted with the node’s non-extended capability at rates of 57.6 Kbaud and 230.4 Kbaud through a cable distance of 3048 meters (10,000 feet) and 762 meters (2500 feet) using an 82-Ohm 1/2 Watt terminating resistor. It has four selectable baud rates and it uses 2 DIP switches (Switch 1 and 2) for the selection of baud rates. The 1747-SN’s operating temperature range is between 0 and 60 degrees Celsius at 5 to 95% humidity without condensation and it has a non-operational temperature between -40 degrees Celsius and 85 degrees Celsius.