

# Allen-Bradley 1794-ACNR15 Manual

|                |                                    |
|----------------|------------------------------------|
| Brand          | Allen-Bradley                      |
| Product Series | 1746 1747                          |
| Product Type   | Redundant Media ControlNet Adapter |

## Description

The Allen-Bradley 1794-ACNR15 is a Flex I/O communication adapter. This adapter is a DIN rail mounted device, which features dual ControlNet port, used in implementation of Redundant ControlNet data highway. It supports up to Eight (8) Flex IO modules. It supports ControlNet version 1.5. Technical specifications for 1794-ACNR15

Manufacturer Rockwell Automation

Power Dissipation 3.4W maximum @ 19.2V dc

Brand Allen-Bradley

Product Description: Redundant ControlNet Adapter Module

Communication Port: Two (2) ControlNet BNC

Data Transfer speed: 5 Mbps

Indicators: Comm A: red/grn Comm B: red/grn I/O status- red/grn

Mounting: DIN Rail

ControlNet Protocol: V 1.25

ControlNet cable: 3.31 mm<sup>2</sup> (24 AWG), stranded max 1.2 mm (3/64 in.), insulation, max

Operating Temperature: -20...55 °C -4...131 °F)

Surrounding Temperature: 55 °C (131 °F)

Vibration: IEC 60068-2-6 (Test Fc, Operating) IEC 60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz

Operating Shock: IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g

Power Consumption: 400mA maximum from external 24V supply

Thermal Dissipation 15.7 BTU/hr @ 19.2V dc

Part Number/Catalog No. 1794-ACNR15

Product Type Redundant Media ControlNet Adapter

Voltage 24 V DC

Input Voltage Range 19.2-31.2V DC

Flexbus Output Current 640 mA max.

Isolation Voltage 850V DC

Inrush Current 23A for 2ms

Communication Rate 5M bps

Current Draw 450mA max.

UPC 10612598180599 Description

The Allen-Bradley 1794-ACNR15 is a Redundant ControlNet communication module. This module is a component product of the Flex I/O product family that is used for implementing distributed I/O in various applications and industries.

The 1794-ACNR15 supports ControlNet protocol. It may be used to implement redundant ControlNet topology by connecting to the ControlNet trunk connection. The 1794-ACNR15 has Two (2) ControlNet communication ports, each port connecting to the individual trunks. When one ControlNet trunk fails, data is automatically routed to the second ControlNet trunk.

The 1794-ACNR15 supports ControlNet transmission speed of 5Mbps and may be installed with Eight (8) Flex I/O modules of any combination.

This module requires an external power supply to function. Acceptable supply voltage range is 19.2...31.2V DC, with current of 400 mA. The nominal supply voltage is 24VDC. For power connections, use 0.33... 2.5 sq. mm (22...12 AWG) solid or stranded copper wire with insulation rating of 75 °C (167 °F) or greater and maximum insulation thickness of 1.2 mm (3/ 64 in.). For Double wire connection, use 0.33... 1.3 sq. mm (22...16 AWG) solid or stranded copper wire that are not intermixed, with insulation rating of 75 °C (167 °F) or greater and insulation thickness of 1.2 mm (3/64 in.).

The 1794-ACNR15 has LED indicators that provide operational status of the module. These LED indicators include I/O status, Comm A for ControlNet port A status and Comm B for ControlNet port B status. These LED status indicators are useful monitoring and troubleshooting aids which convey specific message.

The 1794-ACNR15 can be mounted using a DIN rail or wall mount with Torque requirement of 7 pound-inches. The module's dimensions are 87x 94x 69 millimeters and it weighs approximately 220 g (7.76oz). The 1794-ACNR15 has a T4 temperature code and dissipates 3.4 W of heat at 19.2 Volts DC in an open-style enclosure type rating. It has an operational temperature range between -25 and 55 degrees Celsius (-13 and 131 degrees Fahrenheit) at 5-95% non-condensing relative humidity. It has a maximum operational shock rate of 30G and can reach 50G in non-operational mode and a 5.0G operational vibration at 10 to 500 Hertz.

## Technical Specifications

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ControlNet Protocol: V 1.25

ControlNet cable: 3.31 mm<sup>2</sup> (12 AWG) stranded max 1.2 mm (3/64 in.), insulation, max

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