Allen-Bradley 1794-ACN15 Manual

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

Description

The Allen-Bradley 1794-ACN15 is a Flex I/O communication adapter. This module is a supports ControlNet communication protocol and enables ControlNet network connectivity. This module is part of the 1794 Flex IO product Family. It has One (1) ControlNet port that supports communication rate of 5 Mbps and supports up to Eight (8) Flex I/O modules. Technical specifications for 1794-ACN15
Manufacturer Rockwell Automation
Part Number/Catalog No. 1794-ACN15
Brand Allen-Bradley
Product Description: 1794 ControlNet Adapter Module
Communication Port: One (1) ControlNet
Indicators: Comm A - red/grn; Comm B- red/grn; I/O Status - red/grn
Mounting: DIN Rail; Panel Mounting
DeviceNet cable: Belden RG-6/U or equivalent
Wire Size: Single wire connection: 0.33... 2.5 mm2 (22...12 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/ 64 in.) insulation max Double wire connection: 0.33... 1.3 mm2 (22... 16 AWG) solid or stranded (not intermixed) copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/64 in.) insulation max
Operating Temperature: 0 to 55 C (32 to 131 F)
Storage Temperature: -40 to 85 C (-40 to 185 F)
Vibration: Tested 5 g @ 10-500Hz per IEC 68-2-6
Operating Shock: 30 g peak acceleration, 11(+1)ms pulse width
Product Type Redundant Media ControlNet Adapter
Voltage 24 Volts DC
Input Voltage Range 19.2 to 31.2 Volts DC
Flexbus Output Current 640 mA maximum
Isolation Voltage 850 Volts DC
Inrush Current 23A for 2 milliseconds
Power Dissipation 4.6 W maximum at 19.2 Volts DC
Communication Rate 5 Mbps
Current Draw 450 mA maximum
UPC 10612598180605 Description
The Allen-Bradley 1794-ACN15 is a Flex I/O communication adapter module. This module supports ControlNet communication, enabling Flex I/O modules to transfer and receive I/O data over ControlNet network with transmission rate of up to 5 Mbps.

The 1794-ACN15 comes with a single ControlNet port that uses the Belden RG-6/U. Not only that this module enable ControlNet communication, it also converts incoming power from the Flex I/O power supply to backplane power which is consumed by the adjacent Flex I/O modules to allow them to operate according to their designed function.

The 1794-ACN15 has built-in status indicators such as I/O Status – red/green; Comm A – red/green and Comm B – red/green. It has an input supply voltage of 19.2-31.2V DC, 400 mA and output voltage and current to the bus of 5V DC, 640 mA. It is able to withstand an inrush current of 14 A for 2 ms.

The 1794-ACN15 has an isolation voltage of 50V (continuous), Basic Insulation Type; Type tested @ 860V AC for 60 s, power to system, power to ControlNet, and ControlNet to system No isolation between ControlNet channels. It has a power dissipation of 3.4 W @ 19.2V DC. When terminating voltage supply to the 1794-ACN15, recommended wires for use with this module are: 0.33... 2.5 mm2 (22...12 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/ 64 in.) insulation max for single wire connection and 0.33... 1.3 mm2 (22...16 AWG) solid or stranded (not intermixed) copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/64 in.) insulation max for double wire connection.

One adapter can function with up to 8 I/O modules, which have communication speeds of up to 5 Mbps. The maximum power dissipation of the 1794-ACN15 is 3.4 Watts at 19.2 Volts DC, with a thermal dissipation of 15.7 BTU/hour maximum at 19.2 Volts DC. Its inrush current is 23 Amps for 2 milliseconds with a current draw of 450 mA maximum or 330 mA at 24 Volts DC. The 1794-ACN15 is mounted with a DIN rail to the ground chassis for proper grounding, and the users can use a zinc-plated yellow-chromate steel DIN rail with an open-type design. It is European Zone 2 and North American Hazardous Location-approved, it has a protection rating of IP20 to prevent injuries and to the users and damage to the machine, and it should be mounted in an enclosure that is suitable for a specific environment. The equipment’s temperature rating runs between -25 and 55 degrees Celsius, and its power wiring must not exceed 32.8 feet (10 meters) in length. Its total size is 3.6 x 3.7 x 3.44 inches (87 x 94 x 69 millimeters) and it weighs up to 0.3 pounds (0.136 kilograms). The 1794-ACN15 has the following indicators: I/O status - red/green, Comm A - red/green, and Comm B - red/green.

Technical Specifications

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Product Type Redundant Media ControlNet Adapter

Voltage 24 Volts DC

Input Voltage Range 19.2 to 31.2 Volts DC

Flexbus Output Current 64