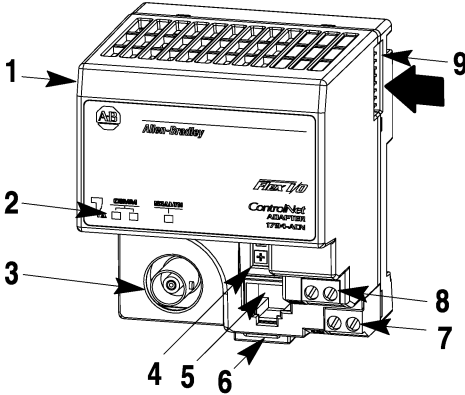




# Installation Instructions

## FLEX I/O ControlNet Adapter (Cat. No. 1794-ACN)



### Component Identification

1	ControlNet Adapter module
2	Indicators
3	ControlNet network cable BNC connector
4	ControlNet Node selection thumbwheel switches
5	ControlNet programming terminal connector port
6	Module locking tab
7	+24V dc connections
8	24V common connections
9	Flexbus connector

## European Union Directive Compliance

If this product has the CE mark it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

### EMC Directive

This product is tested to meet Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) and the following standards, in whole or in part, documented in a technical construction file:

- EN 50081-2EMC – Generic Emission Standard, Part 2 – Industrial Environment
- EN 50082-2EMC – Generic Immunity Standard, Part 2 – Industrial Environment

This product is intended for use in an industrial environment.

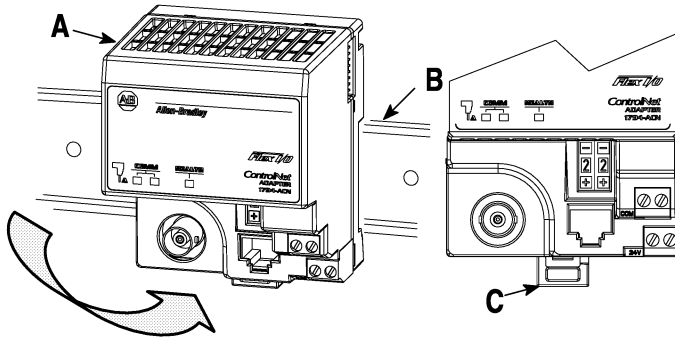
### Low Voltage Directive

This product is tested to meet Council Directive 73/23/EEC Low Voltage, by applying the safety requirements of EN 61131-2 Programmable Controllers, Part 2 – Equipment Requirements and Tests.

For specific information required by EN 61131-2, see the appropriate sections in this publication, as well as the following Allen-Bradley publications:

- Industrial Automation Wiring and Grounding Guidelines For Noise Immunity, publication 1770-4.1
- Guidelines for Handling Lithium Batteries, publication AG-5.4
- Automation Systems Catalog, publication B111

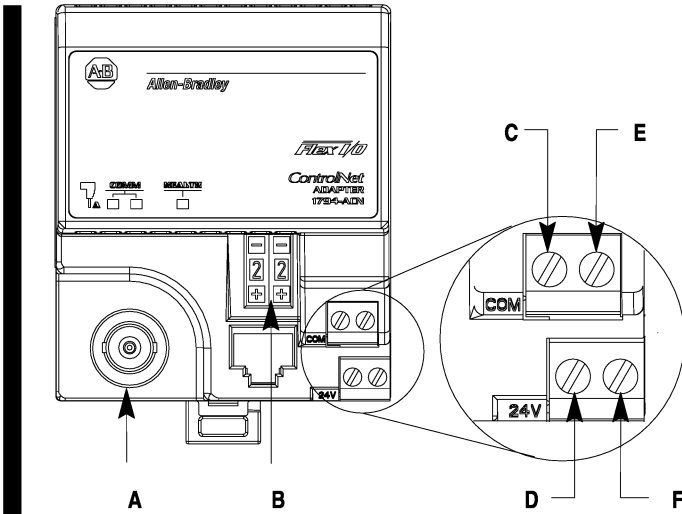
## Mounting on the DIN Rail



1. Position the ControlNet adapter module (A) on a 35 x 7.5mm DIN rail (B) (A-B pt. no. 199-DR1; 46277-3; EN 50022) at a slight angle.
2. Hook the lip on the rear of the adapter (A) onto the top of the DIN rail (B), and rotate the adapter module onto the rail.
3. Press the adapter module down onto the DIN rail until flush. Locking tab (C) will snap into position and lock the adapter module to the DIN rail.
4. If the adapter module does not lock in place, use a screwdriver or similar device to move the locking tab down while pressing the adapter module flush onto the DIN rail and release the locking tab to lock the adapter module in place. If necessary, push up on the locking tab to lock.
5. Connect the adapter wiring as shown under “Wiring” later in this document.

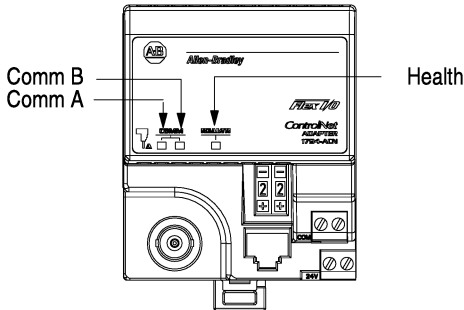
**NOTE:** For Panel/Wall mounting, refer to publication 1794-5.13, “Panel Mounting Kit, Cat. No. 1794-NM1.”

## Wiring



1. Connect the ControlNet network cable to connector, terminal **A**.
2. Connect +24V dc input to the left side of the lower connector, terminal **D**.
3. Connect 24V common to the left side of the upper connector, terminal **C**.
4. Connections **E** and **F** are used to pass 24V dc power (**F**) and 24V common (**E**) to the next module in the series (if required).
5. Set the network address using the 2-position thumbwheel switch **B**. Valid settings range from 01 to 99. Press either the + or – buttons to change the number.

## Indicators



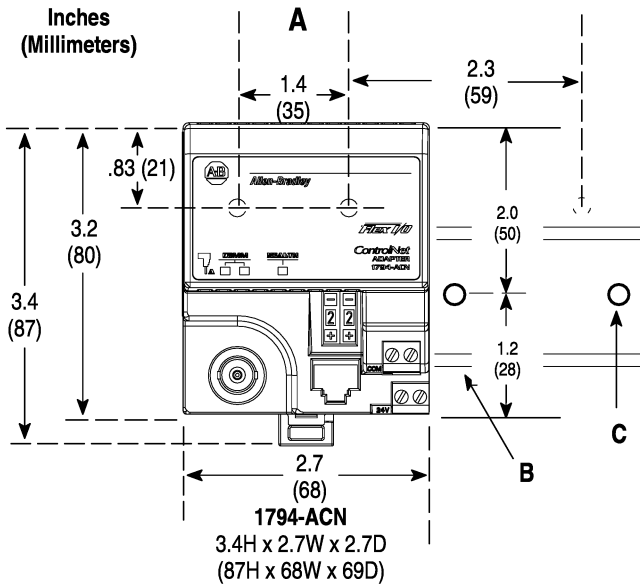
Status Indicators	Probable Cause
<b>Comm A and Comm B Simultaneously</b>	
Off	No power, or reset
Red	Adapter inoperative
Red/Grn – (flashing alternately)	Adapter self-test
Red/Off – (flashing alternately)	Bad node configuration (duplicate address)
<b>Comm A or Comm B (individually)</b>	
Off	Channel disabled
Green	Channel operational
Flashing Grn/Off	Temporary network errors
Flashing Red/Off	Cable fault, broken cable, redundancy warning
Flashing Red/Grn	Bad network configuration
<b>Health Indicator</b>	
Off	Channel disabled
Flashing Grn	On-line but not connected
Green	On-line, link okay, connected
Flashing Red	Recoverable fault
Red	Critical – adapter failure

### 1794-ACN Specifications

I/O Capacity	8 modules
Power Supply	<b>Note:</b> In order to comply with CE Low Voltage Directives, you must use a Safety Extra Low Voltage (SELV) or a Protected Extra Low Voltage (PELV) power supply to power this adapter.
Input Voltage Rating	24V dc nominal
Input Voltage Range	19.2V to 31.2V dc (includes 5% ac ripple)
Communication Rate	5M Bits/s
Indicators	Comm A – red/grn Comm B – red/grn I/O Status – red/grn
Flexbus Output Current	640mA maximum @ 5V dc
Isolation Voltage	100% tested at 850V dc for 1s between user power and flexbus
Power Consumption	400mA maximum from external 24V supply
Power Dissipation	4.6W maximum @ 19.2V dc
Thermal Dissipation	15.7 BTU/hr @ 19.2V dc
Environmental Conditions	
Operational Temperature	0 to 55°C (32 to 131°F)
Storage Temperature	–40 to 85°C (–40 to 185°F)
Relative Humidity	5 to 95% noncondensing
Shock	30 g peak acceleration, 11(±1)ms pulse width
Operating	50 g peak acceleration, 11(±1)ms pulse width
Non-operating	Tested 5 g @ 10–500Hz per IEC 68-2-6
Vibration	
ControlNet Cable	Belden RG-6/U
Power Conductors	
Wire Size	12 gauge (4mm <sup>2</sup> ) stranded maximum 3/64 inch (1.2mm) insulation max.
Category	2 <sup>1</sup>
Agency Certification (when product or packaging is marked)	<ul style="list-style-type: none"> <li>• CSA certified</li> <li>• CSA Class I, Division 2 Groups A, B, C, D certified</li> <li>• UL listed</li> <li>• CE marked for all applicable directives</li> </ul>

<sup>1</sup> Use this conductor category information for planning conductor routing. Refer to publication 1770-4.1, "Industrial Automation Wiring and Grounding Guidelines."

**Mounting Dimensions**



- A** = Mounting hole dimensions for optional mounting kit
- B** = DIN rail
- C** = Secure DIN rail approximately every 200mm



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