

## ControlNet Fiber Repeater A-CFR

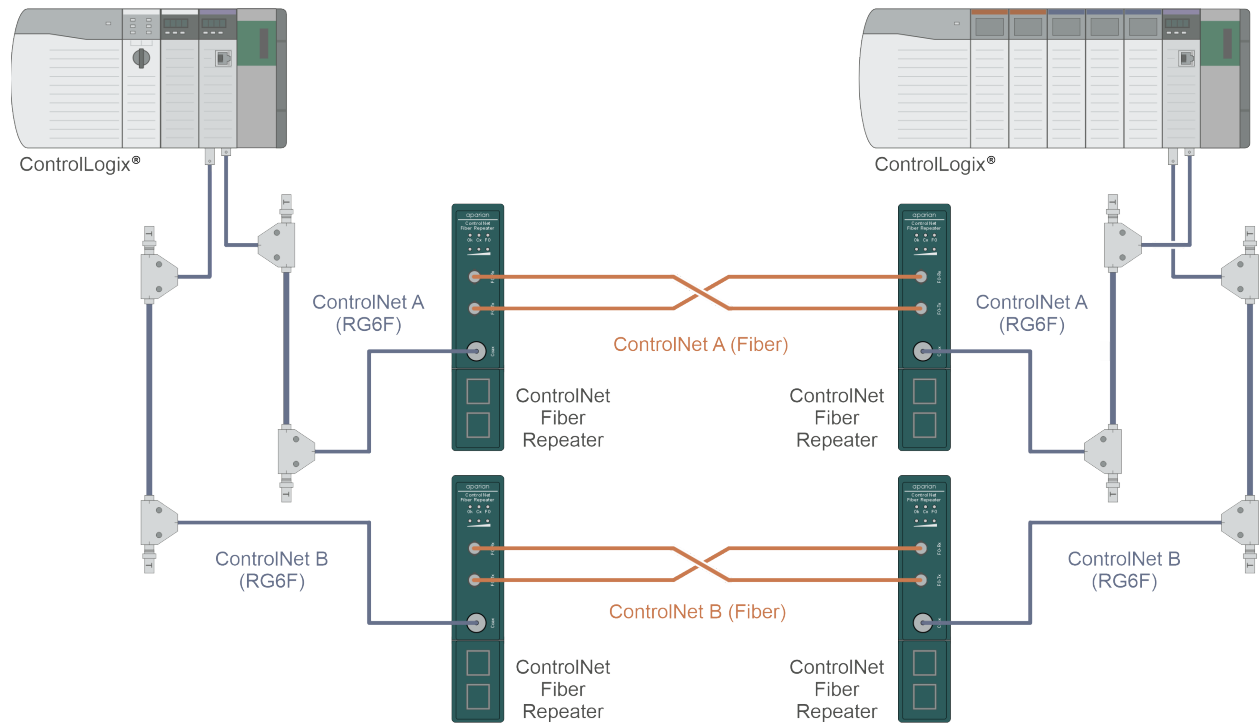
The A-CFR ControlNet Fiber Repeater extends the length of a network for a point-to-point topology while performing network media conversion from copper to fiber, and from fiber to copper.

The A-CFR can be used when a medium-distance fiber link between two ControlNet products is needed. The fiber link provides isolation between nodes and is less susceptible to a noisy environment than copper media.

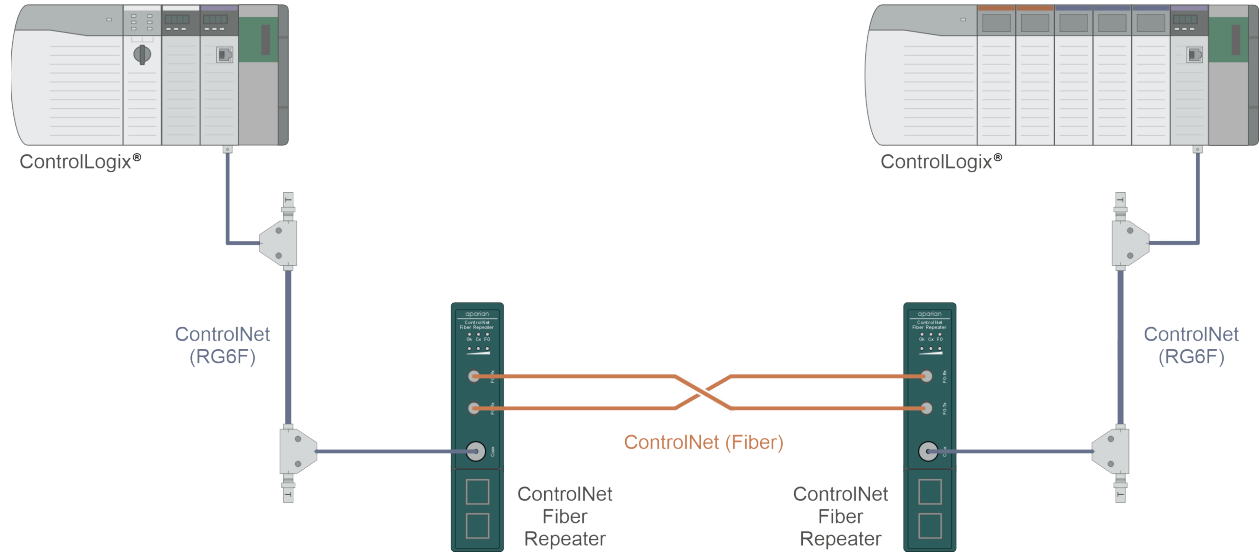


### Features

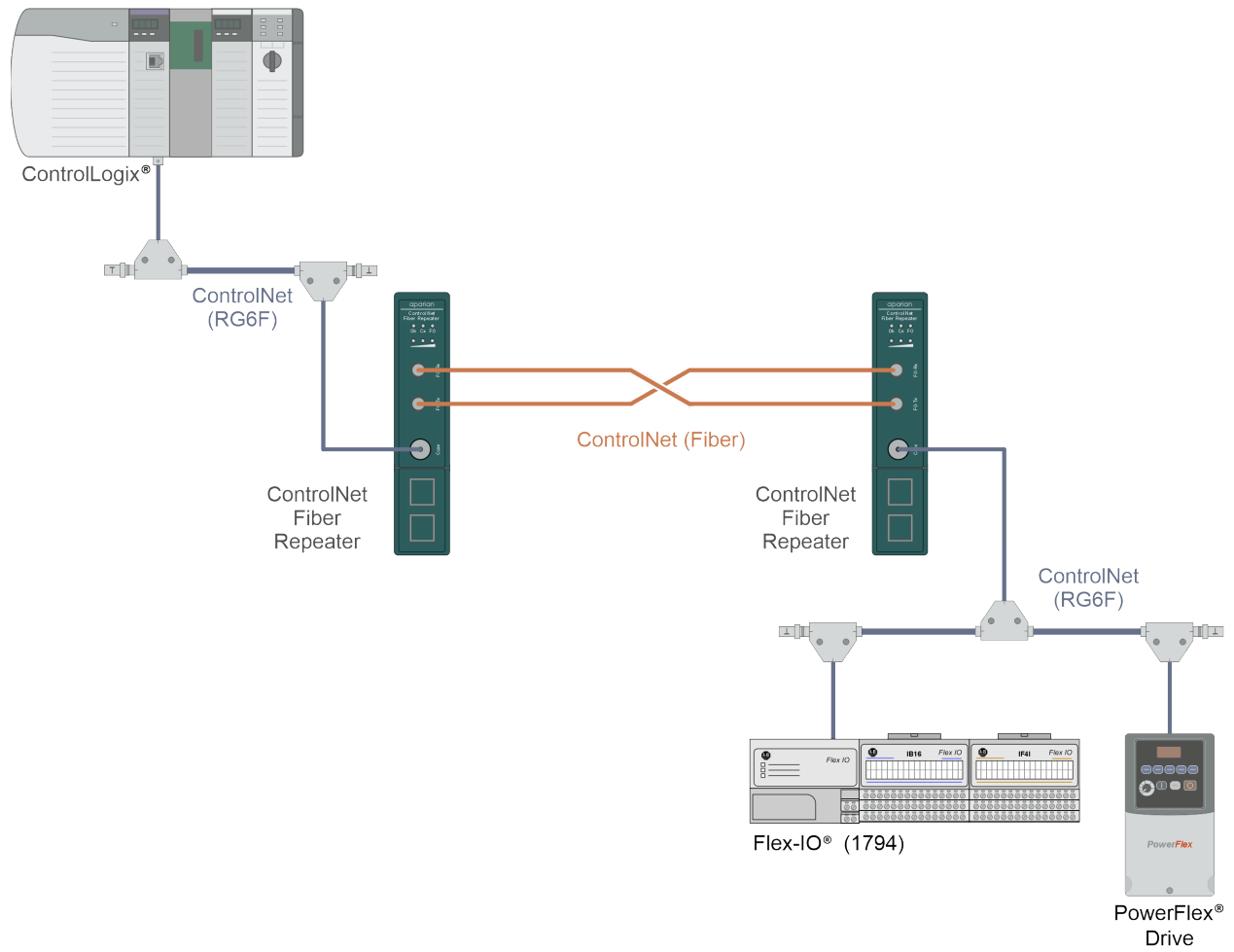
- ❖ A pair of A-CFR modules can be used to physically extend a ControlNet network by up to 3 km (1.86 miles) using standard industrial multi-mode fiber.
- ❖ Supports Redundant ControlNet applications by duplicating the setup.
- ❖ Supports common industrial fiber cables:
  - OM1 - 62.5/125  $\mu\text{m}$
  - OM2 - 50/125  $\mu\text{m}$
- ❖ Wide operating voltage 10 to 32 VDC
- ❖ Small form factor – DIN rail mounted



**Figure 1: Redundant ControlNet Media**



**Figure 2: Non-Redundant ControlNet Media**



**Figure 3: Other Typical ControlNet application**

## Specifications

### ControlNet Fiber

Specification	Description
Connectors	2 x ST-Type connectors (FO-Tx and FO-Rx)
Wavelength	820 nm
Transmission Mode	Multi-mode
Supported Fiber Cables	OM1: 62.5/125 µm OM2: 50/125 µm
Maximum Distance	3000 m
Transmit Power (at 1m of fiber)	OM1: 62.5/125 µm -9 dBm (max.) -12 dBm (typ.) -17 dBm (min.)  OM2: 50/125 µm -12.8 dBm (max.) -15.8 dBm (typ.) -20 dBm (min.)
Optical Budget	13.0 dB (for OM1 - 62.5/125 µm) 9.0 dB (for OM2 - 50/125 µm)

### Hardware

Specification	Description
Power Supply	Input: 10 to 32 VDC, (70 mA @ 24 VDC)
Power Consumption	1.7 W (max)
Dimensions (H x W x D)	148.0 x 34.0 x 116.0 mm
Connector	3-way terminal
Conductors	24 to 18 AWG
Enclosure Rating	IP20, NEMA/UL Open Type
Temperature	0 to 70 °C
Earth Connection	Yes, terminal based
Emissions	IEC 61000-6-4
ESD Immunity	EN 61000-4-2
Radiated RF Immunity	IEC 61000-4-3
EFT/B Immunity	EFT: IEC 61000-4-4
Surge Immunity	Surge: IEC 61000-4-5
Conducted RF Immunity	IEC 61000-4-6

## Agency Approvals & Certifications

Please visit our website: [www.prosoft-technology.com](http://www.prosoft-technology.com)



## Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms. For a complete list of products, visit our website at: [www.prosoft-technology.com](http://www.prosoft-technology.com)

## Ordering Information

To order this product, please use the following:

## ControlNet Fiber Repeater

A-CFR

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: [www.prosoft-technology.com](http://www.prosoft-technology.com) and select *Where to Buy* from the menu.

Copyright © 2024 ProSoft Technology, Inc.  
All Rights Reserved. November 8, 2024  
For Public Use.

Specifications subject to change without notice.