

1786-RPFRL

Allen-Bradley (Rockwell Automation) · ControlNet / Bulletin 1786

The Allen-Bradley 1786-RPFRL is a ControlNet fiber ring long-distance repeater that converts electrical ControlNet signals to optical signals for extended, noise-immune, redundant ring topologies. It provides ground-loop isolation and extends ControlNet reach well beyond coaxial limits, with status LEDs and a fault relay contact for diagnostics.

Manufacturer: Allen-Bradley (Rockwell Automation)

Brand: Allen-Bradley

Part Number/Catalog No.: 1786-RPFRL

Base Catalog: 1786-RPFRL

Series Suffix: None

Product Type: Fiber Ring Repeater (Long Distance)

Product Family: ControlNet / Bulletin 1786

Model-Specific Specifications:

ControlNet 5 Mbps

multimode fiber 820nm, ST connectors

up to 3km per segment (ring up to 20km, 15dB loss limit)

2x BNC coax + 2x ST fiber ports

24V DC supply / 570mA@5V DC (3.02W)

50V isolation

operating 0-60 C

IP20

Series / Family Common Specifications:

Deterministic, scheduled ControlNet network operating at 5 Mbps.

Coaxial trunk media: quad-shielded RG-6 coax (75 ohm) with BNC connectors.

Supports redundant media (Trunk A/Trunk B) and fiber options for high availability.

Repeaters/adapters (e.g. 1786-RPFM) regenerate and extend the network over coax and fiber.

Max 99 nodes per ControlNet network. Ambient operating temperature up to 60 C (storage -40 to 85 C).

Lifecycle Status: Discontinued

Discontinuation Date: 2022-09-30

Recommended Replacement: Engineering Replacement (migrate to 1786-RPFRXL / ControlNet fiber ring alternatives)

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