

DATASHEET

Fiber-Optic CAN bus Extenders WRC-CANR-DF

WRC CAN bus Extenders boost signal levels, allowing longer cable lengths, longer trunk lines, and longer drop lines without sacrificing network speed. CAN bus Extenders permit maximum network speed and throughput on CAN, J1939, or DeviceNet network devices, resulting in better control of the process. In addition extenders require no configuration when used in DeviceNet applications as they are configured for autobaud operation.

Key Features:

- ♦ Expands the usable applications for DeviceNet, J1939, SDS, and other CAN V2.0, Part A and Part B compatible CAN bus systems
- ♦ Enables the creation of star, tree and other non-linear network topologies which increases flexibility in system design and reduces installation costs
- ♦ Works with both trunk lines and drop lines
- ♦ Allows operation at higher speeds for specific distances
- ♦ Fiber-optics provide superior electrical interference protection versus copper cables
- ♦ Operates at 9.6K to 1M fixed baud for J1939 or CAN bus networks
- ♦ Auto-detects baud rate on DeviceNet (125k, 250k, or 500k baud)
- ♦ Isolates the two sections of the CAN bus (copper wire)
- ♦ Extender operation is transparent to Master and Slave devices
- ♦ Powered from the CAN bus network
- ♦ Sealed NEMA-4X enclosure
- ♦ Standard round, mini-style connector with male pins for copper cable
- ♦ Standard Fiber Optic ST female connector for use with multi-mode or single mode fiber
- ♦ Standard CAN chips manage CAN bus error detection and handle message bus arbitration
- ♦ Less than 900 µsec latency
- ♦ Termination resistor built in on the CAN bus interfaces
- ♦ Two identical WRC-CANR-DF units are included in an order kit and both are required for each application



Series IV CANR Enhancements include:

- ♦ Up to 12km fiber lengths
- ♦ CAN 2A, CAN 2B, and remote frame support
- ♦ Expanded DIP switch settings allow selection for CAN bus speeds up to 1M baud
- ♦ Enhanced autobaud operation
- ♦ Either unit in a pair can Autobaud from the other units defined baud rate
- ♦ Improved Reverse voltage protection and CAN line noise immunity
- ♦ Increased message internal buffers – Automatic Memory Technology (AMT) operation
- ♦ Eliminates the distinction between WRC's earlier version Type 1 and Type 2 CANR

Hardware Specifications

Specification	Description
Baud Rate	9.6K, 10K, 20K, 40K, 50K, 100K, 125K, 250K, 500K, 800K and 1M baud fixed or auto-detect DeviceNet baud
Bus Connection	Standard M18 mini connector, male pins, male threads
Fiber Optic Cable	WRC-CANR-DF-DN : 50/125µm, 62.5/125µm, 100/140µm, and 200µm multi-mode, ST termination, maximum 2.2km length
Fiber Connection	Device: ST female
LED Indicators	MS - Module Status: green/red bi-color NSA - Copper Network A Status: green/red bi-color NSB - Fiber Network B Status: green/red bi-color DGN - Diagnostic Data: green/red bi-color TXF - Fiber Transmit Active: green RXF - Fiber Receive Active: green
Maximum Power	Voltage: 11 to 25 Vdc Current: 110 mA @ 11 Vdc to 60 mA @ 25 Vdc Power: 1.5 W
Dimensions	Length: 5.11" (130 mm) Depth: 2.27" (57.7 mm) Height: 3.70" (94.0 mm)
Operating Temp	0 °C to 70 °C
Humidity	Up to 95% RH, with no condensation

Ordering Information

WRC-CANR-DF-DN

Multi Mode fiber CAN bus Extender

How to Contact Us: Sales and Support

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