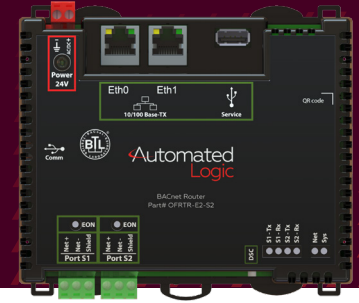


Dual IP BACnet Router

PART NUMBER: OFRTR-E2-S2



Preserve ARC156 Investments While Enabling IP Connectivity

The Dual IP BACnet Router enables seamless integration across modern and legacy building automation networks with dual IP ports for easy daisy-chain deployment. It supports routing between BACnet/IP, BACnet/IPv6, BACnet/Ethernet, BACnet/SC, BACnet/ARCNET (ARC156), and BACnet MS/TP, and includes two serial ports for flexible network expansion or segmentation of ARC156 or MS/TP networks. Designed to protect existing ARC156 network investments, it delivers a cost-effective path to modern BACnet IP connectivity.

Key Features and Benefits

- **Protects Investments:** Provides support for existing infrastructure as a modern replacement for AAR/AMR Routers, designed to preserve network speed and provide serial-to-serial routing for ARC156 to ARC156, ARC156 to MS/TP, and MS/TP to MS/TP networks without requiring a full system overhaul.
- **High-Speed, Resilient BACnet Networking:** Features two 10/100 Mbps Ethernet ports with a fail-safe relay and leverages the high-performance, ASHRAE-standard BACnet over ARC156 protocol to deliver faster serial communication¹—while seamlessly integrating with industry-standard MS/TP devices for responsive, flexible system designs.
- **Enhanced Cyber Security:** Satisfies rigorous IT/OT security requirements by combining encrypted BACnet/SC communication (requires BACnet/SC Hub) with the ability to physically disable unused Ethernet ports to help mitigate unauthorized network access.
- **Simplified BACnet/IP Integration:** Supports BACnet Broadcast Management Device (BBMD) functionality and Foreign Device Registration (FDR) for easy, reliable communication across routed and remote BACnet/IP networks.
- **Compact Design, Simplified System Architecture:** A durable, space-saving enclosure mounts easily on DIN rail or in panels while combining IP and serial routing into a single device—reducing panel complexity.
- **Simplified Installation and Commissioning:** Supports dual-port daisy-chaining for fast installation and a wireless service tool for easy commissioning.
- **Built-In Diagnostics and Visibility:** Supports on-board network diagnostics and network statistics for efficient troubleshooting.
- **Operational Continuity:** Maintains accurate system time for up to three days during power outages via a capacitor-backed real-time clock, protecting the integrity of schedules and trend logs without manual intervention.

¹Compared to MS/TP 76.8k

WebCTRL®

The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve sustainable building operations.

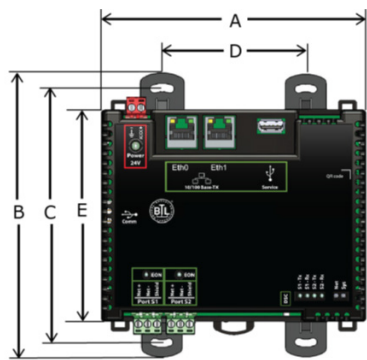


Specifications

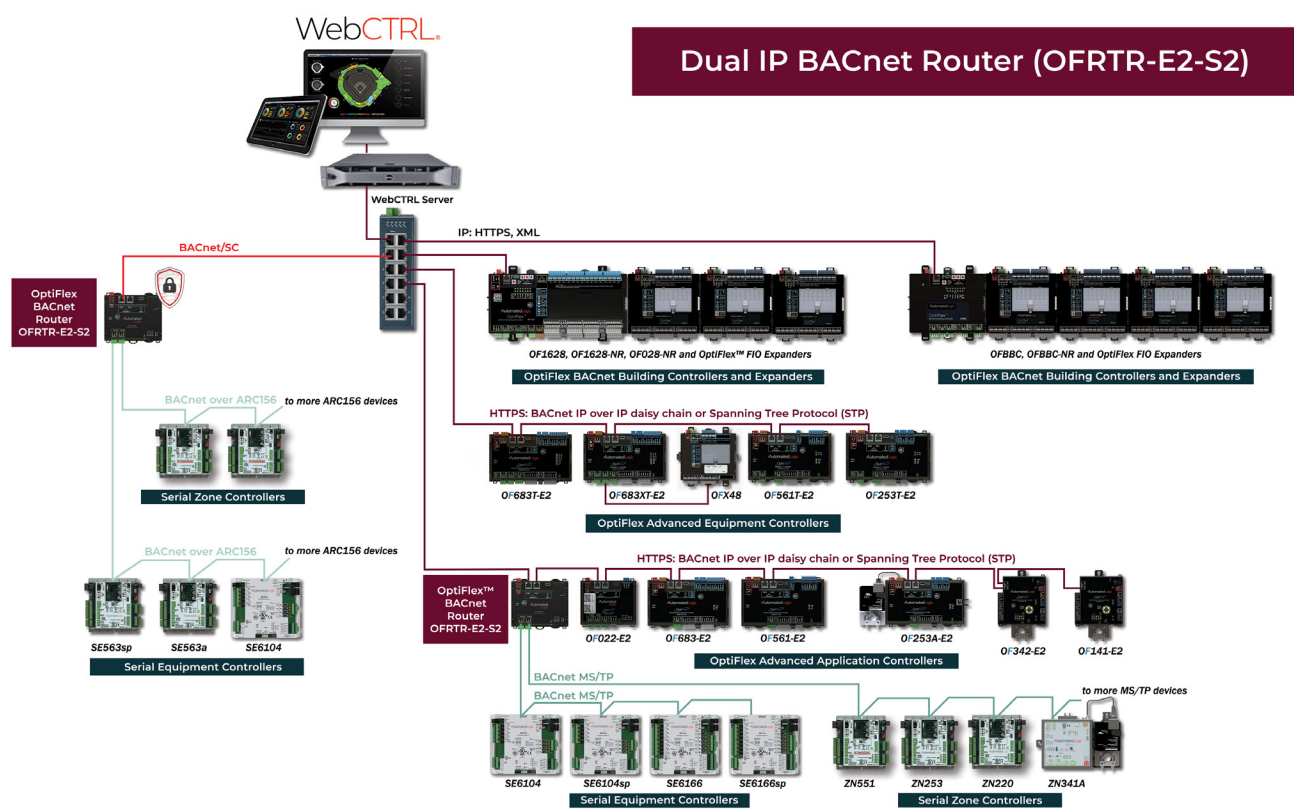
Part # OFRTR-E2-S2 / Automated Logic Dual IP/BACnet Router	
BACnet Conformance	Conforms to the BACnet Router (B-RTR) and BACnet Broadcast Management Device (B-BBMD) profiles as defined in ANSI/ASHRAE Standard 135-2016 (BACnet) Annex L. Tested to Protocol Revision 19. Please see BTL listing page for details.
Routing Capabilities	Supports simultaneous, multi-protocol routing between BACnet/SC, BACnet/IP, BACnet/IPv6, BACnet/Ethernet, BACnet/ARCNET, and BACnet/MS/TP data links across all four physical ports. Each serial port is independently configurable for the ARCNET or MS/TP protocol.
Supported Data Links	BACnet/SC (with BACnet/SC Hub), BACnet/IP, BACnet/IPv6, BACnet/Ethernet, BACnet/ARCNET, and BACnet/MS/TP
WebCTRL® Compatibility	Works with WebCTRL v9.0 and later systems
Power	24 Vac ±10%, 50–60 Hz, 50 VA 24 Vdc ±10%, 18 W
Communication	
Eth0, Eth1 Ports	Dual 10/100 BaseT, full duplex Ethernet ports with built-in fail-safe relay. Supports BACnet/IP, BACnet/IPv6, BACnet/Ethernet, and BACnet/SC (with BACnet/SC Hub). Supports direct connection or daisy chain topology natively using BACnet/IP and/or BACnet Ethernet communication.
S1 Port	High-speed EIA-485 port for communication with either: • A BACnet/ARCNET network at 156 kbps (with up to 99 ARC156 devices per segment*) • A BACnet/MS/TP network at 9.6 to 115.2 kbps.
S2 Port	High-speed EIA-485 port for communication with either: • A BACnet/ARCNET network at 156 kbps (with up to 99 ARC156 devices per segment*) • A BACnet/MS/TP network at 9.6 to 115.2 kbps.
Service Port	USB 2.0 host port for local computer connection, WebCTRL® interface, or Automated Logic® wireless service adapter (USB-W).
Status Indicators	LED status indicators for S1-Tx/Rx, S2-Tx/Rx, Net (Network Status), Sys (System Status), Power, and S1/S2 EON (End of Network).
Environmental Range	Operating: -40°F to 158°F (-40°C to 70°C), 10-95% relative humidity, non-condensing. Suitable for installation inside or outside the building envelope (requires UL Listed enclosure if used outside).
Memory	8 GB eMMC Flash memory and 512 MB DDR3 DRAM (120 MB available for use). User data archived to non-volatile Flash memory when parameters are changed, every 90 seconds, and when the firmware is deliberately restarted.
Real Time Clock	Capacitor-backed; keeps track of time for up to 3 days during a power failure.
Compliance	United States: FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed to UL 916, PAZX, Energy Management Equipment Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX7, Energy Management Equipment Europe: Mark, UK: EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment RoHS Compliant: 2015/863/EU REACH Compliant. Australia/New Zealand C-Tick Mark, AS/NZS 61000-6-3.
Cybersecurity	Enhanced BACnet/SC (requires BACnet/SC Hub) + Port Disable
Protection	Device is protected by a replaceable, fast acting, 250 Vac, 3A, 5mm x 20mm glass fuse. The power and network ports comply with the EMC requirements EN50491-5-2.
Enclosure	Fire-retardant plastic ABS, UL94-5VA.
Terminal blocks and Connectors	Screw-type terminal blocks. 0.2 in (5.08 mm) pitch connectors
Weight	0.75 lb. (0.3402 kg)
Mounting	35mm DIN rail mounting or screw mounting

Specifications—continued

Figure 1: Overall Dimensions



Overall	in.	cm
A:	5.51	14
B:	5.88	14.93
E:	4.41	11.20
Depth:	2.01	5.11
Mounting		
D:	3.00	7.62
C:	5.29	13.44



*Specifications are subject to change without notice.