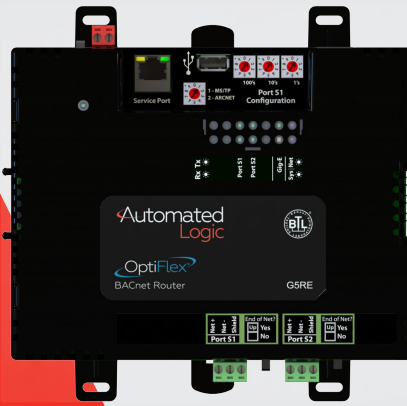# OPTIFLEX™ BACNET/SC ROUTER

Automated Logic

OptiFlex™

BACNET SECURE CONNECT ROUTER FOR THE WEBCTRL® SYSTEM

The OptiFlex BACnet/SC router, model G5RE, is a high-performance BACnet router that securely routes BACnet messages between a BACnet Secure Connect hub, the WebCTRL building automation system, and other BACnet subnetworks.

KEY FEATURES AND BENEFITS

BACnet Features

- Features end-to-end encrypted BACnet Secure Connect (BACnet/SC) routing between BACnet/SC hubs and the WebCTRL system via BACnet/SC, an encrypted datalink layer specifically designed to meet the requirements, policies, and constraints of minimally-managed to professionally managed IP infrastructures

- Allows concurrent BACnet networks (BACnet/SC and non-BACnet/SC), allowing facilities to migrate to the BACnet/SC environment over time

- Includes two additional BACnet ports to support either two simultaneous BACnet MS/TP networks (up to 127 controllers each), or one ARCnet network (up to 254 ARCnet controllers), and one BACnet MS/TP network (up to 127 controllers) to simultaneously route and share data across a wide range of building subsystems

- Can serve as a BACnet Broadcast Management Device (BBMD) routing any BACnet broadcast messages directly to other BBMD devices on the BACnet network

- Supports BACnet Foreign Device Registration (FDR)

Hardware Features

- IPv6 and IPv4 networks are supported

- Stateless auto-configuration of addresses (SLAAC), static IPv6 addressing, and DHCP IP addressing are supported

- 1000 BaseT Ethernet port for high-speed communication

- Password protected Ethernet service port at 100 Mbps for system start-up and troubleshooting

- Web sever local access for properties such as network and alarm configuration, notification classes, etc.

System Benefits

- Connects seamlessly to the WebCTRL building automation system

- Multiple serial communication ports to simultaneously route and share data across a wide range of building subsystems
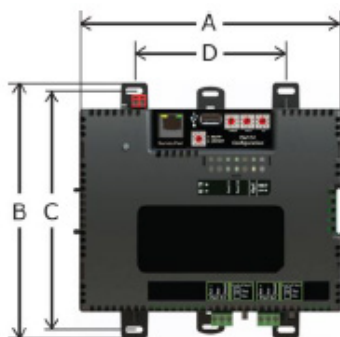
WebCTRL®

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.
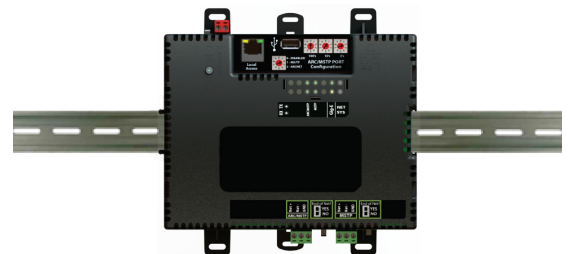
SPECIFICATIONS

Part #	G5RE OptiFlex BACnet/SC router
Communication	
BACnet Conformance	Conforms to the BACnet Router (B-RTR) and BACnet Broadcast Management Device (B-BBMD) BACnet Secure Connect (Annex AB) BACnet Secure Connect HUB as defined in ANSI/ASHRAE Standard 135-2012 (BACnet) Annex L, Revision 19
Gig-E Port	10/100/1000 BaseT Ethernet port for BACnet/IP and/or BACnet/Ethernet communication, full duplex
IPv4	Gig-E, 1000Mbps BACnet IP and DHCP IP addressing
IPV6	Gig-E, 1000Mbps BACnet IP for static IPv6 addressing and stateless auto-configuration of addresses (SLAAC)
Port S1	For communication with either of the following: - BACnet ARCnet network at 156 kbps - BACnet MS/TP network at 9,600 to 115,200 bps
Port S2	For communication with a BACnet MS/TP network at 9,600 to 115,200 bps
MSTP Port	Optically isolated EIA-485 port for BACnet MS/TP network at 9,600 to 115,200 bps
Service Port	Password protected Ethernet service port at 10 or 100 Mbps for system start-up and troubleshooting
Power	24 Vac ±10%, 50–60 Hz, 50 VA 26 Vdc ±10%, 15 W
Microprocessor	32-bit ARM Cortex-A8, 600 MHz, processor with multi-level cache memory, two Ethernet controllers, and USB 2.0 host port
Environmental Range	-40 to 158° F (-40 to 70° C); 10 - 95% relative humidity, non-condensing
Memory	8 GBs eMMC Flash memory and 512 MB DDR3 DRAM
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days
Compliance	**United States:** FCC compliant to Title CFR47, Part 15, Subpart B, Class A. UL Listed, File E143900; CCN PAZX, UL916, Energy Management Equipment; **AS/NZS:** RCM Mark 61000-6-3; **Canada:** UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant, ICES-003, Class A; CE Mark Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; **UKCA** Mark compliant with Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012.
Protection	Device is protected by a replaceable, fast acting, 250 Vac, 2A, 5mm x 20mm glass fuse. The power and network ports comply with the EMC requirements EN50491-5-2
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA
Mounting	35mm DIN rail mounting or screw mounting

Figure 1: Physical Dimensions

	in.	cm
Width:	7.1	18.03
Height:	6.95	17.65
Depth:	2.09	5.31
Weight:	1.1 lbs	.482 kg

Assembled in the United States

7-22-2024