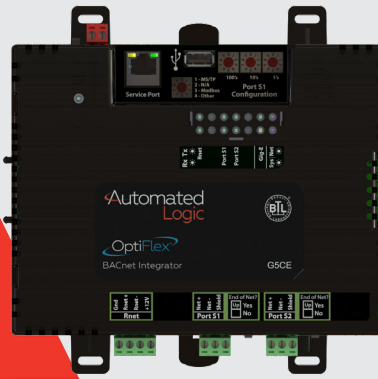# OPTIFLEX™ BACNET INTEGRATOR

Automated Logic

OptiFlex™

HIGH-SPEED BACNET ROUTING AND INTEGRATION

The Automated Logic OptiFlex BACnet Integrator is an integral component of the WebCTRL® building automation system.

The OptiFlex Integrator supports routing between multiple BACnet networks. It also supports custom control programs to easily integrate with third party BACnet or Modbus equipment such as variable speed drives, boilers, and lighting.

KEY FEATURES AND BENEFITS

BACnet Features

- Supports routing between BACnet/IP, BACnet/Ethernet, BACnet ARCnet, and BACnet MS/TP networks
- Supports up to 1,500 third party BACnet points
- Supports up to two BACnet/IP networks on the Gig-E port
- 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)

Modbus Features

- Can act as a master or slave on a Modbus serial network
- Can act as a server or client on a Modbus TCP/IP network

Hardware Features

- Supports and executes control programs
- Supports Gig-E, 1,000Mbps BACnet IP and DHCP IP addressing
- Ethernet port provides local access for system start-up and troubleshooting
- Supports network captures for advanced diagnostics
- Provides network statistics numerically or as trend graphs inside the WebCTRL buiding automation system
- Supports DIN rail and screw mounting
- Capacitor-backed real-time clock keeps time in the event of power failure or network interruption for up to three days
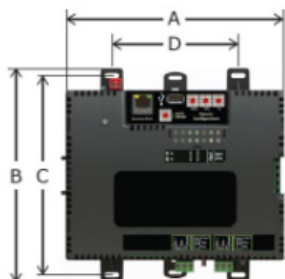- Connects seamlessly to the WebCTRL building automation system

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.
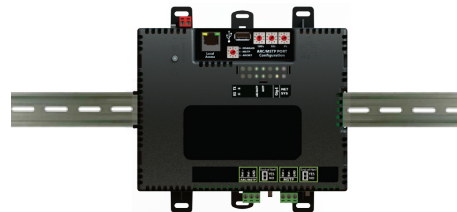
SPECIFICATIONS

Part #	G5CE OptiFlex BACnet Integrator
BACnet Conformance	Conforms to the BACnet Building Controller (B-BC), BACnet Router (B-RTR) Standard Device and BACnet Broadcast Management Device (B-BBMD) as defined in BACnet 135. Tested to and listed to Protocol Revision 14 (135-2012).
Control Program Execution	Maximum number of control programs: 999 depending upon available memory.
BACnet Objects	Maximum number of BACnet objects: 12,000 for programming purposes.
Third-Party Integration	Supports up to 1,500 third-party BACnet integration points, and 25 modbus integration points
Power	24 Vac ±10%, 50–60 Hz, 50 VA 26 Vdc ±10%, 15 W
Communication	
Gig-E Port	10/100/1000 BaseT Ethernet port for BACnet/IP and/or BACnet/Ethernet and/or Modbus full duplex
Port S1	For communication with either of the following: • A BACnet ARCnet network at 156,000 bps • A BACnet MS/TP network at 9,600 to 115,200 bps • A Modbus at 9,600 to 115,200 bps
Port S2	For communication with a BACnet MS/TP network at 9,600 to 115,200 bps or Modbus at 9,600 to 115,200 bps
Service Port	Ethernet port at 10 or 100 Mbps for system start-up and troubleshooting
Rnet Port	Supports Up to 15 ZS wireless and/or ZS sensors, and one Equipment Touch or OptiPoint™ interface
Microprocessor	32-bit ARM Cortex-A8, 600 MHz, processor with multi-level cache memory, and USB 2.0 host port
Environmental Range	-40 to 158° F (-40 to 70° C); 10 - 95% relative humidity, non-condensing
Memory	16 GBs eMMC Flash memory and 256 MB DDR3 DRAM (22 MB available to use). User data is archived to non-volatile Flash memory when parameters are changed, every 90 seconds, and when the firmware is deliberately shutdown or restarted.
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	0.482 kg

Assembled in the United States

12-7-2023