OPTICORE GW-1000

Protocol Gateway

The OEMCtrl® OptiCORE™ GW-1000 is a high-performance, BACnet native protocol gateway. It provides protocol conversion from a variety of protocols to open building automation standards like BACnet and Modbus. It can integrate with building automation systems via BACnet (IP or MSTP) or Modbus (IP or serial). The GW-1000 goes beyond integration by providing support for EIKON® control logic empowering the gateway to be more than just a translator. As an example, provide true BACnet alarms based on conditions defined in the EIKON logic. Do unit conversion, add control logic to account for other conditions and much more.

Key Features and Benefits

Performance / Hardware

- Powered by 32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory with 16 GBs eMMC Flash memory and 256 MB DDR3 DRAM

Communication Features:

- Supports up to 1,000 third-party integration points
- 3 - Configurable Communication Ports
    1. Gig-E: 10/100/1000 Base T Ethernet Port for BACnet or Modbus communication, includes DHCP addressing
    2. Port S1: Rotary configurable EIA-485 Port for BACnet MS/TP or Modbus (primarily for BAS connection)
    3. Port S2: Firmware configurable EIA-485 Port for BACnet MS/TP or Modbus (primarily for communicating device connection)
- 1 - Dedicated Communication Port

    Service Port: 10/100 Base T Ethernet port for technician access

BACnet Features

- BTL certified and conforms to the BACnet Building Controller (B-BC) StandardDevice (Tested to Protocol Revision 14)
- Supports routing between BACnet/IP, BACnet/Ethernet and BACnet MS/TP networks
- Can serve as a BACnet Broadcast Management Device (BBMD) and 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

Servicability:

- Fully programmable using our powerful EIKON graphic programming tool. The EIKON tool allows you to create graphic control sequences for your application, which can be fully simulated off-line (with the EIKON simulation tool).
- Support for "Live Logic", the ultimate diagnostic tool, allows for real-time troubleshooting of the control logic while the equipment is running.
- Built-in support OEMCtrl's ZS intelligent communicating sensors including room sensors and equipment and duct-mounted sensors.
- Supports touchscreen display units including the Equipment Touch 4.3" touchscreen, and the OptiCORE EQT3s, our rugged, Android, panel-mount interfaces which come in 4.3", 7", & 10" sizes.

OptiCORE GW-1000

Part# GW-1000

ASHRAE BACnet® Modbus

Support for EQT3 touchscreens

EQT3-7

OEMCtrl

Specifications

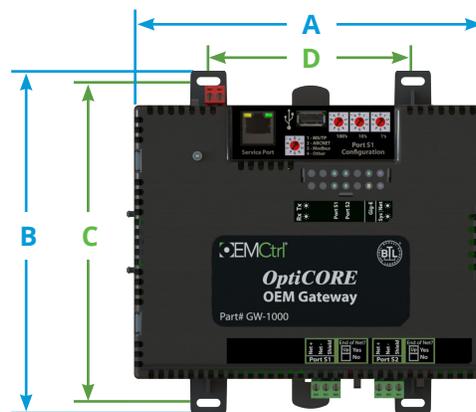|	
Power	24 Vac ±10%, 50-60 Hz, 50 VA, 26 Vdc ±10%, 15 W, Single Class 2 source only, 100 VA or less
Physical	Fire-retardant plastic ABS, UL94-5VA
Operating Range	-40º to 158º F (-40º to 70º C); 10 - 90% relative humidity, non-condensing

Communication Ports
 	
BACnet
Modbus
	Gig-E port: 10/100/1000 BaseT Ethernet port for BACnet/IP and/or BACnet/Ethernet and/or MODBUS TCP/IP communication on the Ethernet at 10, 100, or 1000 Mbps, full duplex
	Port S1: High-speed EIA-485 port with End of Net switch configurable with rotary switch for connecting one of the following network types:
	  • BACnet MS/TP network at 9.6, 19.2, 38.4, 57.6, 76.8, or 115.2 kbps
	  • MODBUS RTU at 9.6, 19.2, 38.4, 57.6, 76.8 or 115.2 kbps
	Port S2: Electrically isolated EIA-485 port with End of Net switch configurable in firmware for connecting one of the following network types:
	  • BACnet MS/TP network at 9.6, 19.2, 38.4, 57.6, , 76.8, or 115.2 kbps
	  • MODBUS RTU at 9.6, 19.2, 38.4, 57.6, 76.8 or 115.2 kbps
	Service port: 10/100 Base T Ethernet port for system start-up and troubleshooting
	Rnet port: Communicate with ZS communicating sensors and local EQT displays.
	USB port: USB 2.0 host port for device recovery

Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days
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.
Microprocessor	32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory
Memory	16 GBs eMMC Flash memory and 256 MB DDR3 DRAM (22 MB available to use).
Compliance/Listing ASHRAE BACnet® CE FC UL UKCA RoHS 2011/65/EU	**BACnet**: Conforms to the BACnet Building Controller (B-BC) Standard Device and BACnet BBMD (B-BBMD) Device as defined in BACnet 135-2001 2012 Annex L and tested to Protocol Revision 14. **United States**: FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; **ANZ**: RCM Mark AS/NZS 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.
Dimensions	**Dimensions** **Overall** A: 7.1 in. (18.03 cm) B: 6.95 in. (17.65 cm) Depth: 2.09 in. (5.31 cm) Weight: 1.1 lbs (0.482 kg) **Screw Mounting** C: 6.45 in (16.38 cm) D: 4.1 in. (10.4 cm) DIN rail or Screw mounting