

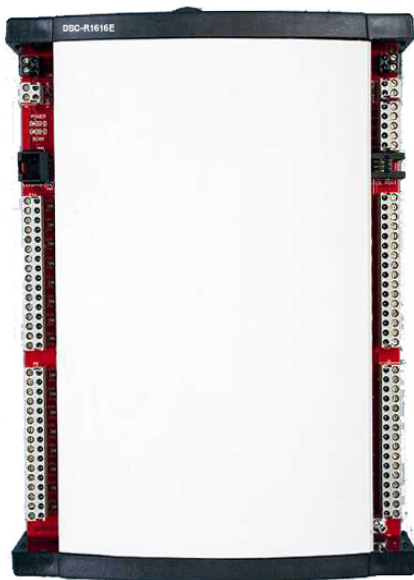
System Controllers

DSC-1616E

Description

The DSC-1616E is a fully programmable, Native BACnet® Building Controller that communicates on Twisted-Pair Ethernet 10-BaseT using BACnet IP and BACnet over Ethernet, or on an RS-485 LAN using the BACnet MS/TP protocol.

The DSC-1616E also supports an additional BACnet MS/TP SubLAN for VAV and other application controllers. The SubLAN may be configured to support Delta BACstat® and other Delta LINKnet I/O devices. This controller is designed for a wide-range of applications that have mid-sized I/O requirements.



Application

The DSC-1616E is suitable for controlling equipment such as AHUs, Boilers, Chillers and a variety of HVAC control systems.

The fully programmable DSC-1616E can be tailored to specific applications by creating and modifying BACnet objects and GCL+ programs.

Features

- ▶ Native BACnet firmware
- ▶ BACnet MS/TP communications
- ▶ BACnet IP and BACnet over Ethernet capabilities
- ▶ Fully programmable in GCL+
- ▶ Controller firmware and application database can be flash loaded over the network
- ▶ Optional field upgrade to Modbus® RTU with hardware key
- ▶ Hand/Off/Auto (HOA) switches with position feedback
- ▶ LED indicator for power, output, CPU and SCAN status

Specifications

BACnet Device Profile

BACnet Building Controller (B-BC)

Inputs

16 Universal Inputs (10-bit) supporting:
0-5 VDC
0-10 VDC
10 kΩ Thermistor
Dry Contact (using 10 kΩ Thermistor jumper setting)
4-20 mA

Outputs

16 Analog Outputs (0-10 VDC), software configured as binary or analog

Device Addressing

Set via DIP switch and jumpers or software setup

Connectors

Removable screw-type terminal connectors

Wiring Class

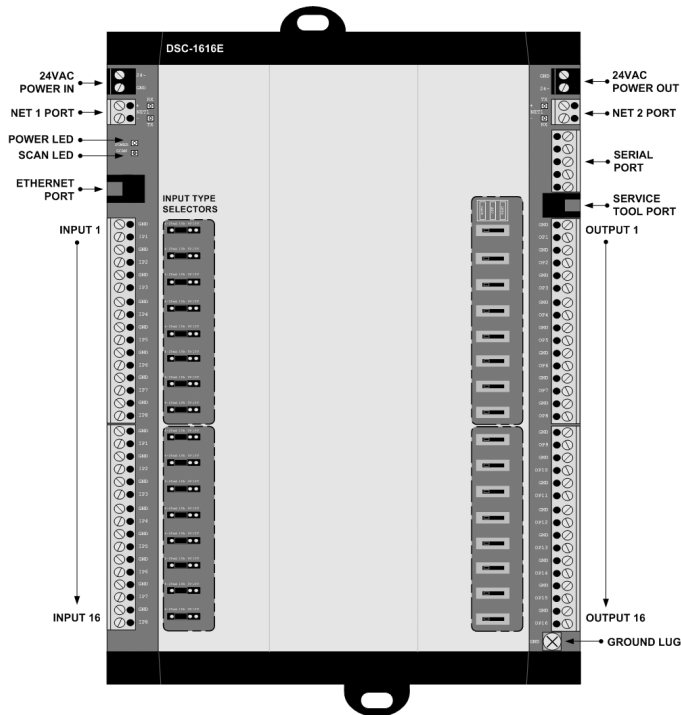
Class 2

BACstat is a registered trademark of Delta Controls Inc.
BACnet is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

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System Controllers

DSC-1616E: Board Layout Diagram



Specifications (Continued)

Power

24 VAC 50/60 Hz @ 30 VA

Power (UL 864)

24 VAC 50/60 Hz @ 40 VA

Technology

16-bit processor
2 MB (16-megabit) flash memory
319 KB SRAM memory for database
Real-time clock with lithium battery and SRAM backup

Communications Ports

Ethernet (10-BaseT)
BACnet IP, BACnet over Ethernet

2 RS-485 NET1, NET2 supporting:

BACnet MS/TP up to 76800 bps, max 99 devices per port

Delta LINKnet up to 76800 bps, max 12 devices on LINKnet with no more than 2 DFM devices (1 port only)

Optional Modbus up to 68400 bps, max 5 devices (1 port only)

Serial RS-232

BACnet PTP, up to 38400 bps

Ambient

32° to 131°F (0° to 55°C)

10 to 90% RH (non-condensing)

Dimensions

12 x 8 $\frac{1}{8}$ x 2 $\frac{1}{2}$ in. (30.6 x 20.5 x 6.4 cm) with housing

Weight

2.20 lbs. (1 kg) with housing

Compliance

CE
FCC

Listings

UL 916 Listed
BTL Listed
UL 864 Listed for UL 864 product numbers

Ordering

Order the DSC-1616E with the desired options according to the following product numbers:

| | |
|----------------------------|--|
| DSC-1616E | Controller and housing, BACnet MS/TP LAN, BACnet over Ethernet LAN, HOA switches with feedback |
| DSC-1616E-UL864-340 | DSC-1616E with UL 864 Listing (Listing does not include the HOA switches) |

Accessories

| | |
|-------------------|--|
| DZNR-768 | Delta Network Repeater for BACnet MS/TP* |
| TRM-768 | Delta Network Terminator for BACnet MS/TP* |
| CON-768BT | Bluetooth wireless service tool |
| DFF099-CDT | Additional 50 credit blocks for the Modbus flash key |
| DFF099-KEY | Modbus flash upgrade key with 50 credits pre-loaded |

* UL 864 versions available

Subject to change without notice.