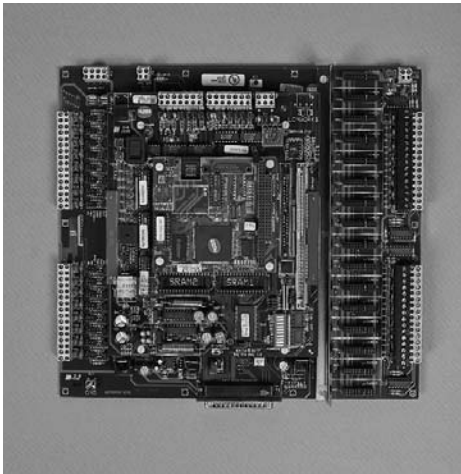


System Controllers

DSC-1616EX: High Capacity System Controller

Description

The DSC-1616EX is a fully programmable, Native BACnet™ Building Controller which is an assembly of the Delta Control Unit (DCU-050), the Delta Base Input/Output Board (DBB-060) and the PC/104 Ethernet Expansion Card (DXC-052-5). The pre-assembled DSC-1616EX is easy to install, and it can be expanded with other components.



Application

With 16 inputs, 16 outputs, 16 plug-in module slots and expansion board capabilities, the DSC-1616EX is suitable for controlling equipment such as large central plants, AHU, chillers, boilers and a variety of HVAC control applications with high I/O density.

Features

- Modular design allows the DSC-1616EX to be built to match exact I/O requirements, and provide a LAN/WAN-based architecture to fit any facility topology
- Mounts on optional Base I/O board for DDC-based operation of directly connected inputs and outputs (expands to maximum 145 I/O)

- Additional chips may be added to expand memory size
- Field replaceable NiMH battery for backup of memory and real-time clock in the event of power failure (72-hour duration)
- Controller firmware stored in flash memory for easy upgrade
- Red LEDs provide input status indication
- On-board 24 VDC terminal simplifies installation by allowing active transducers to be powered directly from the Base I/O Board when the appropriate Plug-In Module is used
- 16 slots for Plug-In Modules allow outputs to be configured with various options on an individual basis including, manual override switch/potentiometer, output relay, device power connection (24 VAC) and additional input channel for feedback status or an unrelated input (extending input capacity up to 32 inputs)
- I/O expansion slot for connection of up to 3 I/O Expansion Boards, extending direct I/O connectivity up to a maximum of 145 I/O depending on the actual Expansion Boards being utilized

Specifications

BACnet Device Profile

BACnet Building Controller (B-BC)

Inputs

16 Universal inputs - 12 bit (supporting 0-5V, 0-10V, 4-20mA, 10 kΩ)

1 Pulse input (up to 100Hz)

4 Separate 24 VDC connection for supplying power to 4-20 mA loops (maximum total current draw of 200 mA DC)

LED status indication

Outputs

16 Analog outputs (0-10V)

Technology

1MB (8 megabit) Flash memory

256 KB SRAM memory for database

4 MB (32 megabit) DRAM memory

NiCd/NiMH battery for real-time clock and SRAM backup

I/O Expansion

Expansion slot for maximum 3 I/O expansion boards (see DEBxxx products series)

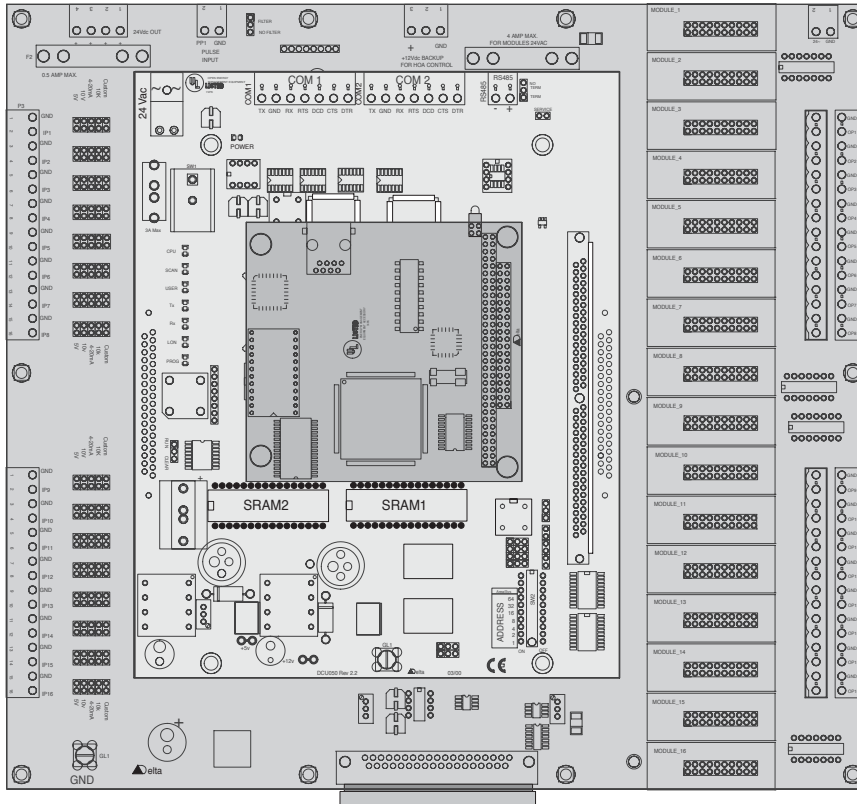
Device Address

Set via Dip switch and jumper

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System Controllers

DSC-1616EX: Board Layout Diagram



Specifications (Continued)

Plug-In Module Slots

16 slots (see Plug-In Modules DPM065-xx)

24 VAC (max 72 VA or 3 A) for certain optional Plug-In Modules (DPM-065-xx)

Communication Ports

Twisted-Pair Ethernet
(10-BaseT) @ 10 MB, BACnet IP, BACnet over Ethernet

Main LAN (NET1)
BACnet MS/TP @ 9600, 19200, 38400 or 76800 bps (default) (maximum of 99 devices per BACnet MS/TP segment)

2 Serial RS-232
BACnet PTP, 9600, 19200 or 38400 bps

Power

24 VAC

75 VA

Wiring Class

Class 2

Ambient

32° to 131°F (0° to 55°C)

10 - 90% RH (non-condensing)

Dimensions

11.8 x 10.8 x 2.5 in (29.8 x 27.4 x 6.4 cm)

2.7 lb. (1235 g)

Approvals/Standards

UL 916 Listed

CE

FCC

Accessories

DPM-065-xx—Plug-In Modules

DEB-100-1—I/O Expansion Board

DEB-100-2—I/O Expansion Card

DEB-101—I/O Expansion Board

DEB-102—I/O Expansion Board

DEN-768—Enclosures

Ordering

Order the DSC-1616EX according to the following product number: DSC-1616EX