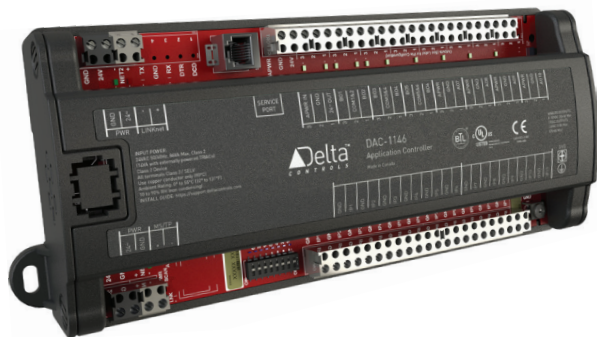


# Application Controllers

## DAC-1146 / DAC-1146E

### Description

The DAC-1146 is a fully programmable, Native BACnet® Advanced Application Controller that either communicates on Twisted-Pair Ethernet 10-BaseT using BACnet IP and BACnet over Ethernet (DAC-1146E) or an RS-485 LAN using the BACnet MS/TP protocol (DAC-1146). It is designed for a wide-range of applications that have medium local I/O requirements. It also supports BACstat® and other Delta LINKnet devices.



### Application

The DAC-1146 is suitable for controlling various packaged units and equipment with medium I/O requirements such as small air handling units, boilers, and chillers.

The fully programmable DAC-1146 can be tailored to specific applications by creating and modifying BACnet objects and GCL+ programs.

### Features

- ▶ Fully programmable in GCL+
- ▶ Super Capacitor for real-time clock and SRAM backup which requires no maintenance (DAC-1146E)
- ▶ Supports 10 BACstat network sensors on LINKnet for room sensing and control, or 2 Delta Field Modules on LINKnet for I/O expansion
- ▶ Actuator power terminal (24 VAC) for each analog output (can be powered internally or from an auxiliary transformer)
- ▶ Firmware upgrade and database load/save over the network
- ▶ Optional field upgrade to Modbus® RTU with hardware key
- ▶ Service port
- ▶ Screw or DIN rail mountable
- ▶ LED indicator for each output, power, CPU and SCAN status

### Specifications

#### BACnet Device Profile

BACnet Advanced Application Controller (B-AAC)

#### Inputs

- 11 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

6 Binary TRIAC Outputs (jumper configured for internal or external power)

4 Analog Outputs (0-10 VDC)

#### Device Addressing

Set via DIP switches and jumpers, or software setup

#### Connectors

Removable screw-type terminal connectors

#### Wiring Class

Class 2 / SELV

#### Power

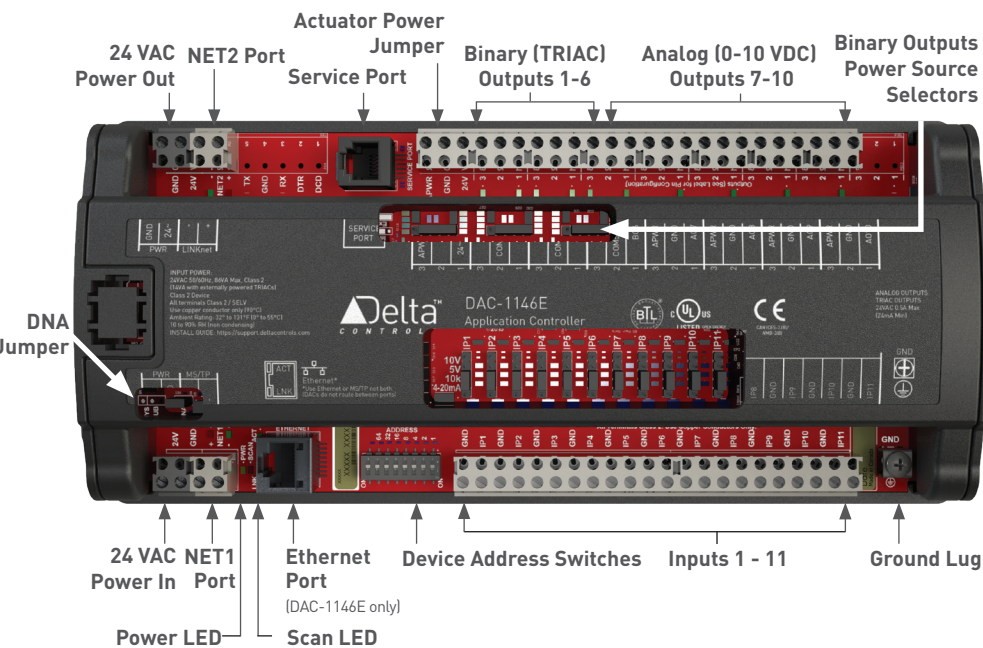
24 VAC 50/60 Hz @ 14 VA, 86 VA with fully-loaded Binary Outputs

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).

Updated May 2016

# Application Controllers

## DAC-1146 / DAC-1146E: Board Layout Diagram



### Ordering

Order the DAC-1146 with the desired options according to the following product numbers:

<b>DAC-1146</b>	Delta Application Controller 11 inputs, 4 AOs, 6 BOs, MS/TP
<b>DAC-1146E</b>	Delta Application Controller 11 inputs, 4 AOs, 6 BOs, Ethernet
	Note: When using Ethernet, MS/TP protocol is not available (RS-485 ports can be used for LINKnet and/or special interfaces only).

### Accessories

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

### Specifications (Continued)

#### Technology

DAC-1146  
16-bit processor  
1 MB flash memory  
127 KB SRAM memory for database

DAC-1146E  
16-bit processor  
2 MB flash memory  
319 KB SRAM memory for database  
Real-time clock  
Super Capacitor for 72-hour backup of realtime clock and SRAM

#### Communications Ports

Main LAN  
Ethernet (10-BaseT)  
BACnet IP, BACnet over Ethernet (DAC-1146E only)  
or  
RS-485 NET1  
BACnet MS/TP up to 76800 bps, max 99 devices per port  
  
SubLAN  
RS-485 NET2  
Delta LINKnet up to 76800 bps, max 12 devices on LINKnet with no more than 2 DFM devices  
Optional Modbus up to 38400 bps, max 5 devices

#### Ambient

32° to 131°F (0° to 55°C)  
10 to 90% RH (non-condensing)

#### Dimensions

10<sup>3</sup>/<sub>8</sub> x 4<sup>1</sup>/<sub>4</sub> x 1<sup>15</sup>/<sub>16</sub> in.  
(26.2 x 10.7 x 4.9 cm) with housing

#### Weight

0.944 lb. (428 g) with housing

#### Compliance

CE  
FCC

#### Listings

C-UL Listed  
UL 916 Listed  
BTL Listed

Subject to change without notice.