



B16

Programmable DDC Controller

The OPEN General B16 BACnet programmable controller is a native BACnet, universal stand alone direct digital controller specifically designed for use in a multitude array of building automation and energy management applications.

NATIVE BACNET COMMUNICATIONS

The building automation system controller communicates native RS485 MS/TP BACnet field bus protocol compatible to the latest ANSI/ASHRAE 135.1 Standard. As a native BACnet controller, The OPEN General B16 programmable DDC controller has the capability to communicate amongst other vendors BACnet compliant DDC hardware on the same MS/TP field bus.

INPUT/OUTPUT DENSITY

The OPEN General B16 delivers high performance Input/Output capabilities.

Universal Inputs	4
Digital Inputs	4
Analogue Outputs	4
Digital Outputs	4

Features

- * BTL Certified
- * Universal Power Supply Range (18-36 VDC, 24VAC)
- * On Board Real Time Clock
- * Powerful microprocessor design
- * Flash memory programmability
- * Input/Output expansion bus
- * Pre configured application specific software personalities for Chiller sequencing, Air Handling Units, Package Units, Fan Coil Units, VAV's etc
- * On board BACnet node hardware switches for manual address setting.
- * Compatible with OPEN XPRESS web operator interface

FLASH MEMORY

The OPEN General B16 controllers operating system and application programs are stored in flash memory. Flash memory technology permanently burns the memory image into the silicon of the chip very much like a USB memory stick. With flash memory technology battery backup is no longer required for the controller because when the controller loses power memory is still retained. In addition to this, Flash memory technology allows easy installation of the latest controller operating system and application programs via remote download from the main operator workstation.

B16 SPECIFICATIONS

INPUTS

FOUR UNIVERSAL:	Voltage: 0 - 10VDC Current: 0 - 20ma
	Temperature: -34°C to 110°C (-29.2°F to 230°F)
	Digital: Voltage Free Contact Counter: 10ms min pulse width
FOUR DIGITAL:	On/Off: Voltage Free Contact Counter: 1ms min pulse width
INPUT ACCURACY:	Digital: 0.1 sec for pulse width modulation Analogue: 12 bit

OUTPUTS

FOUR ANALOGUE:	Voltage: 0-10 VDC (10 mA maximum) Current: 0-20ma
FOUR DIGITAL:	Four single pole single throw (SPST) Form A Relays .Maximum Contact Switch 0.5A, 24VAC/ VDC
OUTPUT ACCURACY:	Digital: 0.1 sec for pulse width modulation Analogue: 12 bit

COMMUNICATIONS

MS/TP RS485:	BACnet protocol, RS485, MS/TP, 127 nodes max
COMMUNICATIONS:	9600, 19.2K baud, 38.4K baud, 57.6K baud, 76.8K baud
BUS LENGTH:	1,220m (4,000 ft) or 32 nodes on same network leg. RS485 repeaters allow extension to longer distances
BUS MEDIA:	Twisted shielded pair
COMMUNICATIONS:	9600, 19.2K baud, 38.4K baud, 57.6K baud, 76.8K baud
BUS LENGTH:	1,220m (4,000 ft) or 32 nodes on same network leg. RS485 repeaters allow extension to longer distances

BACNET FEATURES

BACnet Objects

- * Analog Input
- * Analog Output
- * Analog Value
- * Binary Input
- * Binary Output
- * Binary Value
- * Event Enrollment
- * Notification Class
- * Loop
- * Schedules
- * Trend Logs
- * See PIC statement for details

PROGRAMMABLE FEATURES

Canned Program profiles

- * Fan Coil Unit
- * Chiller Control
- * Pump Control
- * Light Control
- * Air Handling Control
- * See individual profile specification

Freely Programmable Features

OPEN General controllers can be freely programmed using OPENWare programming language via OPENXpress.

OPENWare is an event driven visual basic style programming language where logic statements can be written to operate the controllers as required.

CONNECTIONS

SUPPLY VOLTAGE:	Removable connector
BACNET MSTP:	Removable connector
INPUTS & OUTPUTS:	Removable connector

ELECTRICAL

SUPPLY VOLTAGE:	Auto-sensing 24VAC,50/60Hz, 18-36VDC (+10% -20%)
POWER CONSUMPTION:	5 VA
REAL TIME CLOCK:	Capacitive power backup provides up to 1 year real time clock operation on loss of power

MECHANICAL

OPERATING ENVIRONMENT:	-30°C to 62°C (-22°F to 143.6°F), 10-95% RH (non condensing)
SIZE:	114H X 105W X 32D mm
WEIGHT:	174 grams
ENCLOSURE TYPE:	Self extinguishing UL94-VO, Maximum temperature 100°C
MOUNTING:	Din-rail (EN50022)

AGENCY LISTINGS

