



CX-IDC Integrated Digital Controller

SPECIFICATIONS

New Release

Form 450.24-S1 (704)

The CX-IDC controller is an intelligent, networkable mid-range controller for building control functions and energy management. The microprocessor-based controller provides Direct Digital Control (DDC) capabilities for devices such as air handling units and VAV control centers, as well as other HVAC and building devices.

The CX-IDC is networkable using BACnet® MS/TP, an open protocol supported by ASHRAE®. Each network device communicates with other network devices on an equal basis, eliminating the need for an expensive and complicated master controller.

Each controller is equipped with 11 inputs and 8 outputs. Of the 11 inputs, four are “Universal” accepting voltage, current, resistance, digital, and pulse signals. The seven “Thermistor/Digital” inputs accept resistance, pulse and digital signals. Each of the eight outputs are “Universal” and can provide an analog or digital signal.

An RS232 port provides connectivity to a PC for programming purposes. The CX-IDC can also connect directly to up to 4 chillers using the RS232 port (an



CX-IDC Controller

RS232 to RS485 converter is required for York Talk 2 chillers, which use RS485).

A LAN port (RS485) allows connection using BACnet MS/TP to communicate to other YORK devices on the network, such as chillers, air handler units, CX-VAV controllers, etc. The network can also communicate with other BACnet devices to form an internetwork.

The software uses YORK’s familiar Feature-Section-Page architecture for developing job-specific applications. The software provides standardized HVAC routines, such as Time Management, Energy Demand, and PID Loops. Additional tools, such as the Icon Engineering (IcE) tool for setup and TUP for configuring multiple controllers across the LAN, further simplify commissioning and maintenance.

An optional Keypad and Display Module is available to provide instant access to the Features from the controller. The module is interchangeable with the other controllers, providing a simple, universal interface for all programmable controllers with a Display port.

LEDs provide information on the operating and communication status of each port on the controller. In addition, each I/O channel has an LED to assist in troubleshooting.

BACnet is a registered trademark of ASHRAE

Features and Benefits

- Communicates using ASHRAE's BACnet MS/TP protocol for interoperability with third-party control systems.
- 19 I/O points (11 inputs and 8 outputs).
- Uses nonvolatile Flash Memory to eliminate the need to “burn” EPROMs for each job site.
- Software updates can be installed via the network without the need to visit each device.
- LED indicators of operating and communication status of the controller and individual I/O channels.
- UL916 Listed. Complies with relevant CE EMC safety directives.

SPECIFICATIONS

General

Power Source	115 ±10% VAC (PN x-101) 230 ±10% VAC (PN x-201)
Frequency	45 to 65 Hz
Protection	0.4 A Slow-Blow Fuse
Input Current	260 mA@115 VAC 130 mA@230 VAC
Output Voltage	24 ±18% VDC
Output Current (FS)	600 mA
Battery	1 year operation 5 years storage
Storage Temperature	-22 to 160° F (-30 to 70° C)
Operating Environment	32 to 120° F (0 to 50° C) 10 to 95% non-condensing
Size (H x W x D)	10.0 x 6.5 x 2.3 in. (254 X 165 X 58 mm)
Weight	8.8 lb. (5.0 kg)

Processor

Type	NEC V25 Operating at 8 MHz
PROM Memory	128 kbytes
BRAM Memory	512 kbytes
FLASH Memory	480 kbytes w/10 year retention
RTC Accuracy	±30 sec/year

Thermistor Inputs

No. of Channels	7
Resolution	10 bits
Input Impedance	10 kohms
Repeatability	±0.5%
Thermistor Resistance	6 -70 kohms span
Pulse	20 Hz maximum
Digital	Dry Volt-Free
Accuracy	±0.8% full scale

Universal Inputs

No. of Channels	4
Resolution	10 bits
Input Impedance	10 kohms
Repeatability	±0.5%
Thermistor Resistance	6 -70 kohms span
Pulse	20 Hz maximum
Digital	Dry Volt-Free
Voltage	0-5 VDC or 0-10 VDC
Current	0-20 mA 2 or 3-wire
Accuracy	±0.8% full scale (resistive)

Universal Outputs

No. of Channels	8
Resolution	8 bits
Accuracy	±6.2%
Repeatability	±0.5%
Digital (open collector)	24 VDC@50 mA
Analog	0-10 VDC@5 mA

Interface

LAN	BACnet MS/TP; RS485.
LAN Speeds	9.6, 19.2, 38.4 kbaud
LAN Connection	5-pin screw terminals
LAN Cable	Screened Twisted-Pair (Belden 9841 or Equivalent)
Serial Devices	RS232 DB-9 Male Connector
LEDs	Controller Status; LAN Communication; RS232 Communication; Channel Status
Switch Selections	MAC Address (1-99)
Programming	IcE/VT100 Terminal Emulation

Compliance

UL916
FCC Part 15 Class A
LVD Standard EN61010: 2001
CE Directive EN61000: 2001

Ordering Information

CX-IDC 115 VAC	371-04469-101
CX-IDC 230 VAC	371-04469-201
DIN Rail Mounting Kit	071-04125-000
Keypad and Display	371-04491-000
RS232 to RS485 Converter	371-04160-000
Mid-Size Enclosure	371-04468-001

