

ComfortPoint Open CPO-DIO (DIGITAL I/O CONTROLLER)

DATA SHEET

Trademark Information

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GENERAL

- CPO-DIO modules are supported for all CPO plant controllers.
- Outstanding performance with 32-bit technology.
- Built-in Real Time Clock.
- CPO-DIO is based on B-AAC BACnet profile.
- Connects to RS-485 CP-IO bus of supported plant controllers.
- Fully integrated with ComfortPoint Open Manager (CPOM) as IO device and BACnet controller integrated under plant controller (CPO-PC-6A, CP-IPC).
- Fully integrated with Enterprise Building Integrator (EBI) for the existing EBI system with ComfortPoint Open (CPO) subsystems, the DIOs are considered as BACnet controller and also as IO devices.
- Flexible and easy configuration with ComfortPoint Open Studio.
- Suitable for smoke control systems (UUKL applications).

Attention



Due to Product renovation & technology upgrade, the specifications given in this data sheet maybe subject to change. Please contact your regional product management for current updates.

FEATURES

Onboard Inputs and Outputs

CPO-DIO comes with 8 UI, 8 DI and 16 DO (triacs) I/O which can be used as an expansion I/O board by connecting it to the supported plant controllers on the same RS485 bus.

Scalable and Powerful

Designed with 32-bit processor and built in Real Time Clock, the system can be expanded from a small to a large Integrated Building Management System.

Programming and Configuration

ComfortPoint Open Studio enables users to add/delete/modify I/O assignments when used as an expansion I/O board.

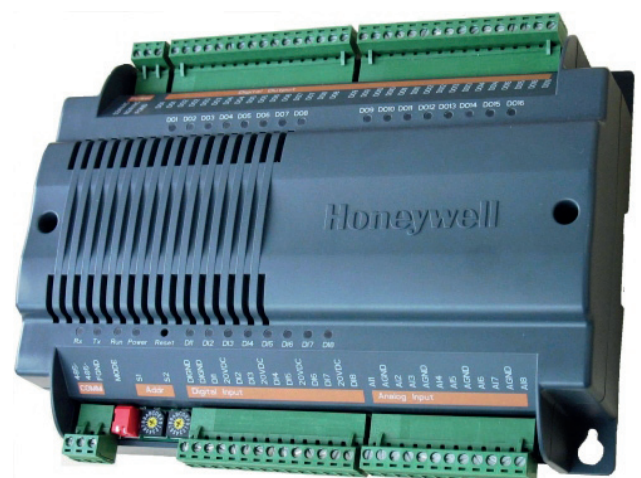
Flexible mounting options

DIN-rail / Wall mounting.

Automatic MAC addressing

Automatically assigns own unique MAC address.

CPO-DIO FRONT VIEW



SPECIFICATIONS

Electrical Data

Operating Voltage

- 24 VAC \pm 20%

Power Consumption

- 15 VA

Housing Material

- ABS Plastic

Mounting

- DIN rail
- Wall mounting

Protection Class

- IP20

CPU

- Processor: Kinetis K10, 32-bit, ARM Cortex-M4

Real Time Clock

- Built-in Real Time Clock

Memory

- 1 MB Flash
- 96 KB RAM
- Battery backup: Data backup upto 72 hours

Integrated I/Os

Input: 16 (8UI+8DI)

- 8 Universal Input
 - NTC 20K (-50 °C to +150 °C)
 - PT1000 (-50 °C to +150 °C)
 - 0 (2) to +10 VDC
 - 0 (4) to 20 mA (with an external resistor of 499 Ω \pm 0.25%)
 - Potential Free Contact as Digital Input
- 8 Digital Input
 - DC signal (max. 30 VDC)
 - Potential free contact
 - Can be used as pulse inputs for metering purpose (15Hz max)

Output: 16 Digital Output (Triac Outputs)

- Maximum voltage: 24 VAC
- Maximum continuous current: 500 mA
- Minimum current: 30 mA

MTBF (Mean Time Between Failure) Data

- 100000 Hours or 11.4 Years

Environmental

Temperature

- Operation: 0~50 °C
- Storage: -20 ~ +70 °C

Ambient Humidity (operation and storage)

- 5 to 93% relative humidity, non-condensing

Certifications

- BACnet B-AAC
- CE - EMC Directive 2004/108/EC (product standards EN 60730, EN 61326, and EN 61000)
- UL 916, UUKL
- FCC Part15, SubpartB, Class B
- UUKL Smoke Control Application

Models

- CPO-DIO: 32 point on board I/O

Hardware Interfaces

MSTP Port 1

- Supports 9.6, 19.2, 38.4 and 76.8 Kbps
- Connects to MSTP network with max 30 BACnet devices per network
- 3 x screw terminal, removable

RS485 Port

- Allows connecting ComfortPoint Open plant controllers and other Expansion IO Boards.

Mode Selector Switch

CPO-DIO can be operated in two modes:

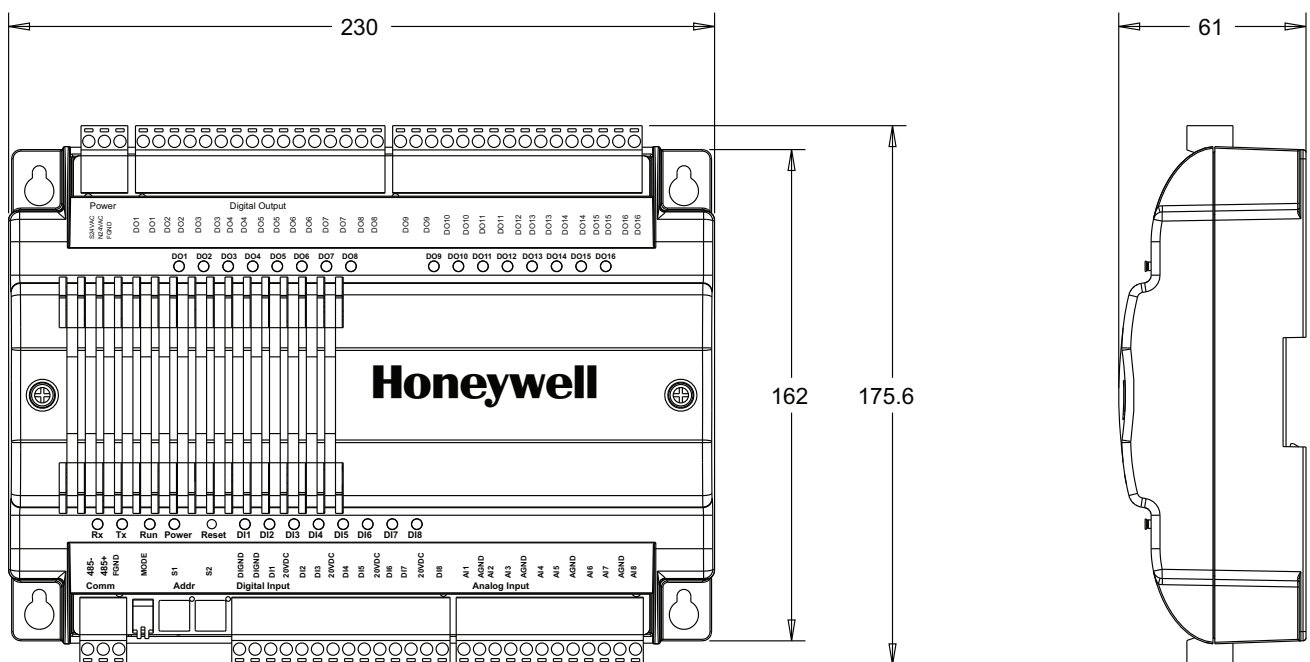
- Expansion I/O module: To configure as Expansion I/O module, set the Mode Switch Pin 2 to ON.
 - BACnet MSTP controller: To configure as BACnet MSTP controller, set the Mode Switch Pin 2 to OFF.
- Note:** To enable the end of line resistor when used as an BACnet MSTP controller and IO board, set Pin 1 to ON.

Controller Addressing

- Controller from factory with a sticker on the rotary switches, supports both Automatic and Manual MAC addressing:
 - AutoMAC feature is enabled by default (rotary switches are set to FF).
 - Manual MAC addressing is possible by removing the sticker and setting the rotary switches (01 ~ 1F).
- Controller without a sticker on the rotary switches, supports only Manual MAC addressing.

DIMENSION

All dimensions mentioned in the following figure are in mm.



Honeywell Building Solutions
1985 Douglas Drive North
Golden Valley MN 55422-4386
USA
www.honeywell.com

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