Member of BACnet International

HPC0662BN Universal Controller, BACnet MS/TP
FW4.02, 141030

12 point, eight control loop, peer-to-peer DDC controller with high flexibility for user configuration to suit a wide variety of HVAC or universal applications in BACnet MS/TP networks or standalone.

Versatile I/O, selection of multiple control loops, digital function blocks and analogue function blocks allow easy configuration for control of FCU and AHU with multiple control loops, signal processing or conversion and – when networked – remote I/O expansion.

Predefined logic function blocks enable easy configuration of a variety of functions including Economy Changeover (temperature or enthalpy), VAV Volume, Occupancy, Hours Run monitoring, Minutes Run monitoring, Lead/Lag changeover, instantaneous Power calculation (kW, BTU) and a wide array of hysteresis & dead-band/live-band choices (Compare function).

Typical Applications
- Temperature, humidity, pressure, IAQ, etc
- Modulating, 3-point floating, on/off, PWM (Pulse Width Modulation), step control, DX
- Signal selection, signal conversion
- Pulse counting

Feature Summary
- 4 Digital Outputs (DO) with power-up presetting & short-cycle timers
- 6 Universal Inputs (UI - user configurable analogue [AI] or digital [DI n/o or n/c], flip/flop, pulse-counting up to 10Hz)
- 2 Universal Outputs (UO – jumper select DO or AO) with power up presetting
- UI's user scalable and units user settable (C, F, rH, %, Pa, kPa, PPM, etc.)
- Connected sensors may be calibrated and filtered by way of the UI configuration
- Isolated, 256 node (1/8th load), RS485 network driver
- Communication speeds from 2400 baud up to 76800 baud
- System-wide unique device addressing
- BACnet application services; Single-Read, Multiple-Read, Single-Write, Who Is, I Am, Who Has, I Have
- BACnet priority array
- LED indication of the On/Off status of DI and DO points for fast visual status verification
- Dynamic LED indication of AO status
- Automatic communication resumption after a power loss
- PC configuration by text file download using FUNCPROG or by direct parameter settings entry
- Upload text file data for retrieving lost application settings, for re-use in other controllers

Connections
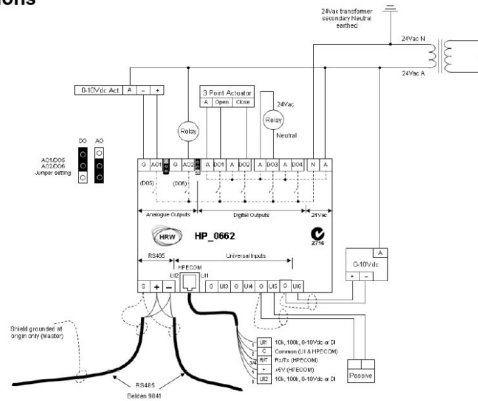
Dimensions
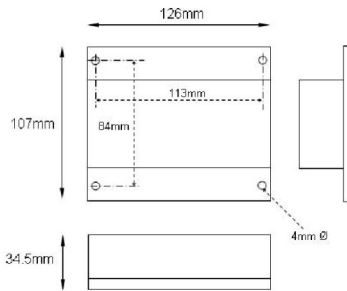
If using HDA0002 DIN rail adapter brackets the overall depth from the gear plate to the front surface of the device is 45.5mm

Technical Data

Inputs/Outputs	
6 UI	- Digital Input (DI)
	- NTC thermistor 10kΩ (default), 20kΩ, 100kΩ
	- 0-5Vdc, 0-10Vdc, 0-20Vdc, 0.01 Volt resolution
	- 0…20mA, 4…20mA, 0.016mA resolution (requires external 18…28Vdc loop power supply)
4 DO	- 24Vac, 3A in-rush, 300mA holding max., minimum load 10mA
2 UO (jumper selected)	DO - 24Vac, 3A in-rush, 300mA holding max., minimum load 10mA
	AO - 0-10Vdc, 0.04 Volt resolution, 1.5mA (min 6.6kΩ impedance)
Sensor/Transmitter Wiring	Shielded twisted pair (shield grounded)
Network Wiring	Belden 9841 low capacitance twisted pair for RS485 networks (braided + foil shield, shield continuous throughout the network and grounded at network origin)
Comms Speed	RS485 - 2400, 4800, 9600, 19200, 38400, 57600, 76800 baud
RS485 Driver	Isolated 1/8th load, 256 nodes over max. 1.2km without repeater
Power Supply	24Vac, 50/60 Hz, max. 5VA without DO load
	50VA MAX. when DO's supplied via the device's 24Vac terminals and fully loaded @ max. 300mA / DO
Conformity & approvals	BTL Listing 23710
	ETL Listing 4002658
	- UL 916
	- CAN/CSA C22.2 #205-M1983
	FCC Part 15 Subpart B Class B
	CE/EMC EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3
Operating Temperature Range	0…50ºC (32…122ºF)
Storage Temperature Range	-5…75ºC (-40…167ºF)
Humidity Range	10…95%rH (non-condensing)
Dimensions	107mm H x 126mm L x 34.5mm D