Universal Wall-Mount Controller with IAQ Sensors

IAQ and ECM fan control applications made easy! The new communicating controller with onboard temperature, humidity CO2 and VOC sensors.

FEATURES

Onboard Sensors

- Temperature sensor (°C/°F)
- Humidity sensor (%RH), select models
- VOC sensor (volatile organic compounds), select models
- Carbon dioxide sensor (CO2), select models

Functions

- Built-in application profiles to automatically configure the controller for the selected application.
- Up to 3 simultaneous control loops capable of controlling, in real time:
  - Humidification and Dehumidification
  - Heating and Cooling
  - CO2 levels
  - VOC levels
  - Integrated EC fan control mode
- Display or hide all the required access for user interaction
- Backlit LCD with simple icon and text-driven menus
- Selectable Fahrenheit or Celsius scale
- Precise temperature control with programmable PI function
- Independent cool and heat setpoint for No Occupancy

Network communication (on selected models)

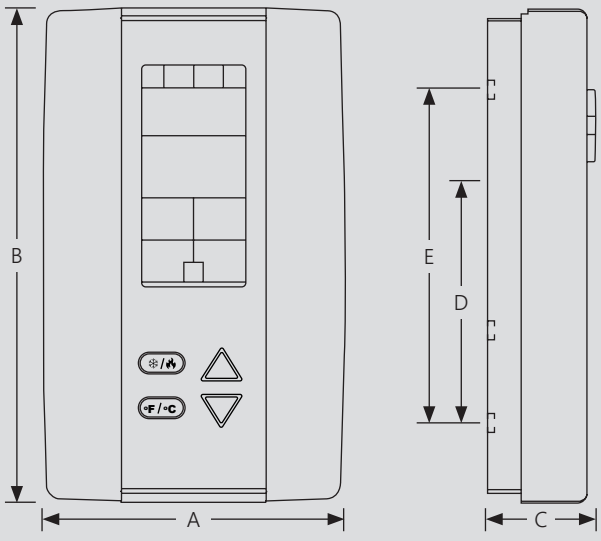
- BACnet® MS/TP or Modbus communication port (selectable using menu)
- Select MAC address using menu or network
- Automatic baud rate detection

Gplus

PRODUCT NAME	DESCRIPTION
GPTC - Temperature Controller	Standalone Controller (Temp Only)
GPHC - Humidity Controller	Standalone Controller (Temp & RH)
GPCO2 - Carbon Dioxide Controller	Standalone Controller (Temp, RH, Co2)
GPVOC - VOC Controller	Standalone Controller (Temp, RH, Co2, VOC)
GPBTC - Temperature Controller	Controller with communication options (Temp Only)
GPBHC - Humidity Controller	Controller with communication options (Temp & RH)
GPBCO2 - Carbon Dioxide Controller	Controller with communication options (Temp, RH, Co2)
GPBVOC - VOC Controller	Controller with communication options (Temp, RH, Co2, VOC)

www.pennbarry.com | tel: 765.483.5860 | pbtsr@pennbarry.com

TECHNICAL SPECIFICATIONS

DESCRIPTION	COMMUNICATING CONTROLLER SPECIFICATIONS
Temperature Sensor	
Setpoint range	10° C to 40° C [50° F to 104° F]
Control accuracy	Temperature: ±0.4° C [0.8° F]
Display resolution	±0.1° C [0.2° F]
Humidity Sensor (select models)	
Setpoint range	10 to 65%RH
Control accuracy	±3.5% RH
Display resolution	0.1%
CO2 Sensor (select models)	
Operating principle	Self-calibrating, Non-Dispersive Infrared (NDIR)
Sensor range	400 to 2000 ppm
Accuracy	±30 ppm ±% of reading (Accuracy is defined after minimum 3 weeks of continuous operation)
Response time	2 minutes by 90%
VOC Sensor (select models)	
Operating principle	Self-calibrating, Non-Dispersive Infrared (NDIR)
Sensor range	0-1000 ppb isobutylene equivalent tVOCs
Response time	< 5 seconds for tVOC
Start up time	15 minutes
Other	
Input	1 Analog input: 0-10Vdc, Thermistor (10k Type 3) 1 Binary input: digital input (dry contact)
Outputs	2 Binary outputs (BO1 and BO2), dry contracts 24Vac, 1A max 3A in-rush 2 Analog outputs (AO1 and AO2), 0 to 10Vdc configurable
BACnet	Bacnet® MS/TP @ 9600, 19200, 38400, 57600 or 76800 bps (B-ASC)
Modbus	Modbus RTU salve @ 9600, 19200, 38400 or 57600. Selectable parity and stop bit configuration: Np parity, 2 stop bit I Even parity, 1 stop bit I Odd parity, 1 stop bit
Communication Connections	24 AWG twisted-shield cable (Belden 9841 or equivalent)
Electrical connection	0.8 mm^2 [18 AWG] minimum
Operating temperature	0° C to 50° C [-32° F to 122° F]
Storage temperature	-30° C to 50° C [-22° F to 122° F]
Relative humidity	5 to 95 % non-condensing
Enclosure protection	IP 30 (EN 60529)
Weight	120 g. [0.25 lb]
Dimensions	 A = 2.85" I 73mm B = 4.85" I 123mm C = 1.00" I 24mm D = 2.36" I 60mm E = 3.27" I 83mm