

# PUC5533-PB2 PUC6002-PB2

## PROGRAMMABLE BACnet UNITARY CONTROLLER PUC SERIES

Honeywell PUC series programmable unitary controllers support BACnet MS/TP communication protocol. This PUC series DDC controllers are available in two models: PUC5533-PB2 and PUC6002-PB2. The hardware design of the controllers integrate with the elements of Honeywell's user experience, which embodies the essence of people-oriented concept no matter from appearance or usage. Both controllers are compatible with Honeywell's existing systems, free programmable by using the same programming tools, and are widely used to control a variety of electromechanical devices in buildings.



## FEATURES

- A universal controller fully compliant with BACnet MS/TP communication protocol enables more flexible field deployment and more equipment monitoring
- The controllers support free programming and fully meet a variety of HVAC application scenarios
- Elegant design, light weight and easy to operate, which continues Honeywell's style on the unitary controller
- Color-coded removable terminal blocks for differentiating signal types enable convenient and fault free termination
- The controller supports on-board input/output points and communication connections through the standard BACnet MS/TP protocol, with a rich combination of points and flexible local deployment
- The controllers support Sylk protocol and it can be used to connect to the TR42/TR42-E display control panel
- Support the connection of control points between controllers, so that the call of information between controllers more freely
- Enhanced network security, compliant with advanced security encryption standards
- Embedded programmable tool under Niagara platform with user friendly interface, compatibly use the programs edited by the existing WEBs tools
- CE, UL and RoHS certification

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# TECHNICAL SPECIFICATION

## DESCRIPTION

TABLE 1 ORDERING PART NUMBER

PART NUMBER	DESCRIPTION
PUC5533-PB2	BACnet Universal Controller, UIx5, DIx5, AOx3, DOx3
PUC6002-PB2	BACnet Universal Controller, UIx6, DOx2

## ELECTRICAL

Nominal voltage	20-30 VAC; 50/60 Hz
Power consumption	PUC5533-PB2 11 VA max.(including controller and all input, output, and communication channels) PUC6002-PB2 7 VA max. (including controller and all input, output, and communication channels)

## OPERATING ENVIRONMENT

Operating temperature	0° C - +50° C
Relative humidity	5%~95% non-condensing
Protection rating	IP20
Pollution degree	2
Protection against electric shock class	Class II
Contact opening	Micro-gap construction
Supply connection	With screw-type terminal
Duty type	Continuous
Method of mounting	DIN rail mounting EN50022

## SIZE (H/W/D)

PUC5533-PB2 PUC6002-PB2	180X115X57.5MM
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## CERTIFICATIONS AND STANDARDS

PUC5533-PB2 PUC6002-PB2	CE UL RoHS BTL
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## INPUT AND OUTPUT

TABLE 2 UI DETAILS

Input Type (Resolution of conversion: 12 Bit)	Sensor type	Operating range
Air duct temperature or room temperature	20K Ohm NTC	-40° C ~ 93° C
Resistance type input	Generic	100 Ohms ~ 100K Ohms
Voltage type input	Transducer	0 ~ 10 VDC+
Digital input signal	Dry contact	Open circuit ≥ 12K Ohms Closed circuit ≤ 500 Ohms

Note: Resolution of analog/digital conversion: 12 bit



## TECHNICAL SPECIFICATION

DIGITAL INPUT (DI)	<ul style="list-style-type: none"> <li>Input type: Dry contact ON/OFF</li> <li>Resistance: Open circuit <math>\geq 12K</math> Ohms; Closed circuit <math>\leq 500</math> Ohms</li> </ul>
DIGITAL OUTPUT (DO)	<ul style="list-style-type: none"> <li>Output type: Relay passive dry contact on/off</li> <li>Parameter of the relay output: <ul style="list-style-type: none"> <li>Nominal voltage: 20-30 VAC, 50-60Hz</li> <li>Rated current: 0 mA-1A(AC), continuous 1A Pilot Duty</li> </ul> </li> </ul>
ANALOG OUTPUT (AO)	<ul style="list-style-type: none"> <li>Analog current output: <ul style="list-style-type: none"> <li>Current output: 4-20 mA</li> <li>Maximum output load resistance: 550 Ohms</li> </ul> </li> <li>Analog voltage output: <ul style="list-style-type: none"> <li>Voltage output: 0-10 VDC</li> <li>Maximum output current: 10 mA</li> </ul> </li> </ul>
COMMUNICATION INTERFACE	<ul style="list-style-type: none"> <li>BACnet MS/TP protocol bus <ul style="list-style-type: none"> <li>Supports one EIA-485 (RS-485) over twisted shielded-pair (TSP), 18-22AWG shielded twisted pair cable is recommended</li> <li>Supports auto-baud switching (9.6kbps, 19.2kbps, 38.4kbps, 76.8kbps, or 115.2kbps)</li> <li>Communication status LED</li> </ul> </li> <li>Sylk protocol bus <ul style="list-style-type: none"> <li>Supports Honeywell TR42,TR42-E display panel</li> </ul> </li> </ul>

### LED DISPLAY

Controller's status can be displayed via LED.

TABLE 3 STA LED STATUS DESCRIPTION

STA LED STATUS	CONTROLLER STATUS
Off	No power; damaged LED; insufficient power supply; initial power-on; or boot loader damaged
Solid on	Start up power insufficient; check power supply – this requires about 3.5 sec – occurs on power up, reset and refresh
Blinking mode 1 – continuously blinks on for 1 sec and off for 1 sec	Operating normally
Blinking mode 2 – continuously blinks on for 0.5 sec and off for 0.5 sec	Equipment alarm active; downloading configuration; loss of configuration
Blinking mode 3 – continuously blinks on for 0.25 sec and off for 0.25 sec	Controller's firmware is updating

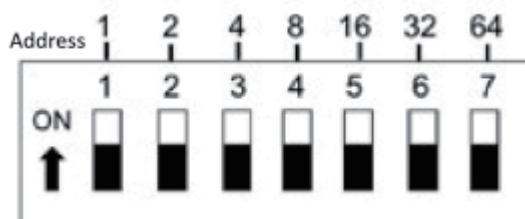
TABLE 4 485 LED STATUS DESCRIPTION

485 LED STATUS	CONTROLLER STATUS
Solid on	Equipment fault or system crashed
Solid off	No power supply or equipment malfunction or system crashed
Solid off, blink once every 2.5 sec	Controller is operating normally without MS/TP token
Solid off, blink twice every 2.5 sec	Controller is operating normally with MS/TP token
Solid off, blink three times every 2.5 sec	Controller is operating with data accessing
Rapid blinking	Equipment fault or system crashed

### DIP SWITCH (BINARY ENCODING)

The DIP switch is pulled up to "ON".

Dip Switch Numbers 1-7, corresponding to low order to high order, are used to set address.





## PRODUCT INSTALLATION

### INSTALLATION NOTES:

- Removable terminals make it easier for installation and maintenance
- Controller must be installed in adequate space for wiring, maintenance and removal
- Product supports DIN rail. DIN rail specification: EN50022 7.5 mm x 35 mm.

### INSTRUCTIONS:

1. Pull out the two rail hooks at the bottom of the controller, holding the controller with its top tilted in towards the DIN rail, hook the two top tabs on the back of the controller onto the top of the DIN rail.
2. Push the bottom of the controller and make sure the controller is tightly attached on the DIN rail.
3. Push two rail hooks up and lock the controller.
4. The controller after the hooks is pushed in is as shown in Figure 1

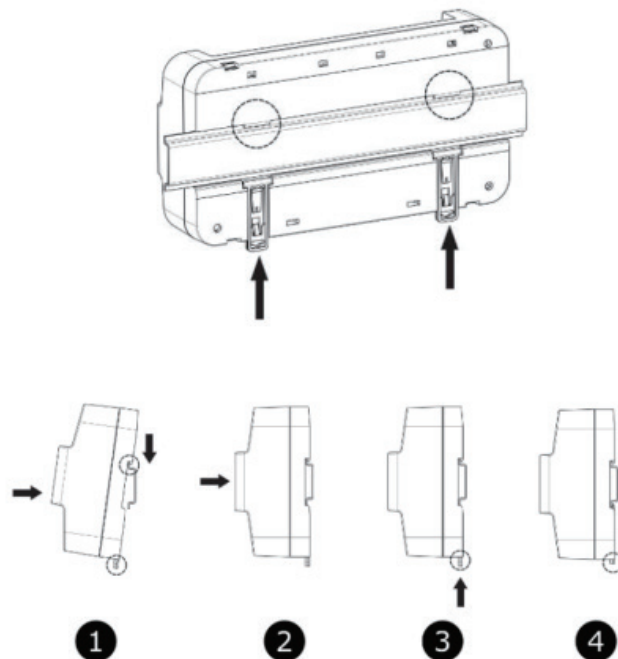
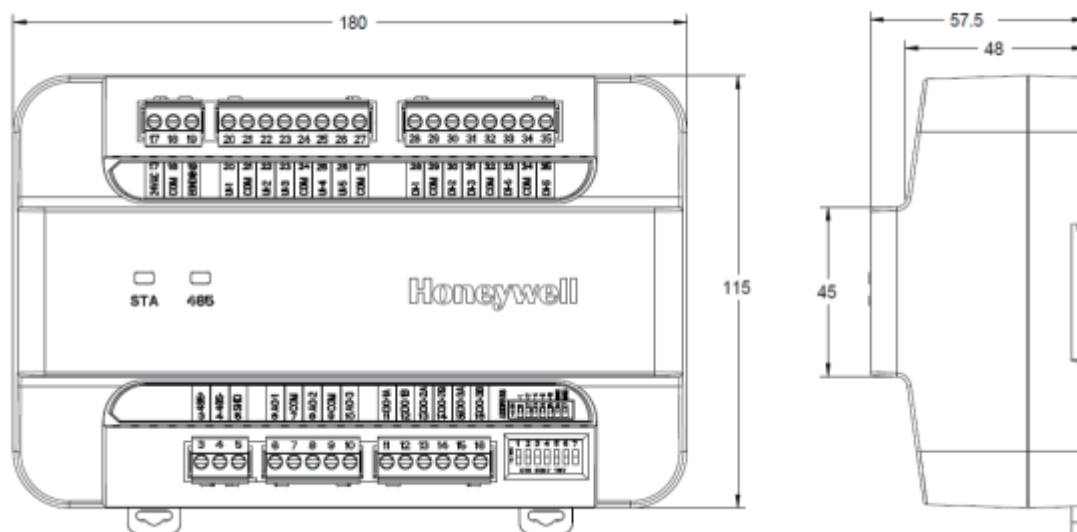


Figure 1 :PUC5533-PB2/PUC6002-PB2 installation instructions

## PRODUCT DIMENSIONS (UNIT: MM)



### For more information

[buildings.honeywell.com.cn](http://buildings.honeywell.com.cn)

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