

ROOM PRESSURE CONTROLLER (PC)

The PC is designed to provide intelligent room pressure control, monitoring of critical spaces, and temperature/humidity control. Multiple strategies are available including direct pressure, volumetric offset, and a dynamic offset pressure control solution which offers the advantages of both.

Using the latest in microcontroller and sensor technologies the PC can measure extremely small pressures and display the readings on the local LCD display (RPI). The RPI features visual and audible alarms signaling unsafe conditions with illuminating sidebars provide 180 degree visual status from anywhere in the corridor. The PC has support for up to 2 room pressure sensor (RPS) modules and can simultaneously monitor a primary and secondary (Ante) room.

Room temperature and humidity are measured using a Price thermostat mounted in the occupied space. Simple connection to thermostat is provided with plug and play RJ45 cable. Outputs on PC for reheat and humidity include binary (24 VAC), staged, and analog (0-10 VDC).

With native BACnet MS/TP communication the PC can tie into building management systems (BMS). When connected to the network many variables are available for monitoring and control.

Commissioning software allows quick and thorough setup of the PC system with the ability to generate a printable test report.



Product Features

PC:

- Control of up to 4 valves or terminals
- Measures differential pressure between spaces (up to 2)
- Native BACnet MS/TP compatibility (BTL listed)
- Temperature and humidity controls
- High speed flash based microprocessor
- Multi-stage surge protection against voltage transients on 24 VAC input
- Pluggable terminal blocks
- Electrical enclosure with 24 VAC transformer
- Door switch inputs to disable alarm when door open
- Optional remote alarm panel (Nurses' Station)

RPI:

- Designed with audible and visual alarms
- RPI Backlit LCD Screen with LED side bars that offer 180 degree viewing of current room status
- RPI Password protected menus
- Service port on back for use with Price LINKER2 setup software
- Included RJ45 plenum rated cable for fast, error free hookup
- Setup Wizard – walk through setup of PC when first powered up

RPS:

- Simple connections using plug and play RJ-12 jacks
- Stainless steel louvered wall plate
- Indicator LED shows proper connection

SPECIFICATIONS

Integrated Transformer: 120/208/240/277 VAC to 24 VAC, 50/60 Hz, 50VA Class 2

Input Power: 24 VAC, 50/60 Hz, 10VA (plus external loads), Class 2

Environmental (operating): 10 C to 50 C (50 F to 122 F), 0% to 95% R.H. (non-condensing)

Environmental (storage): -30 C to 50 C (-22 F to 122 F), 0% to 95% R.H. (non-condensing)

Inputs: 2 Binary inputs: (Configurable for either door switches or duct pressure status from LMX)

8 Analog inputs: 0-10 VDC inputs (configurable for valve/terminal airflow, duct pressure from LMX)

1 temperature input: 10k type J analog thermistor

RJ45 jack – Thermostat

Differential pressure sensor: ± 25 Pa (0.1 in. wg), accuracy better than 0.2% FS near zero, temperature compensated

Outputs: 2 dry binary outputs rated at 0.2 amps each (maximum 24 VAC/VDC), protected with thermal fuse

3 - 24 VAC binary outputs rated at 0.2 amps each (maximum 24 VAC/VDC), protected with thermal fuse

6 analog outputs: (10mA maximum, 0-10 VDC), configurable for pressure and alarm outputs, actuator (Venturi valve or air terminal), reheat and humidifier

Indicators: RGB LEDs on RPI side indicator bars and LCD screen
Status LEDs on all I/O

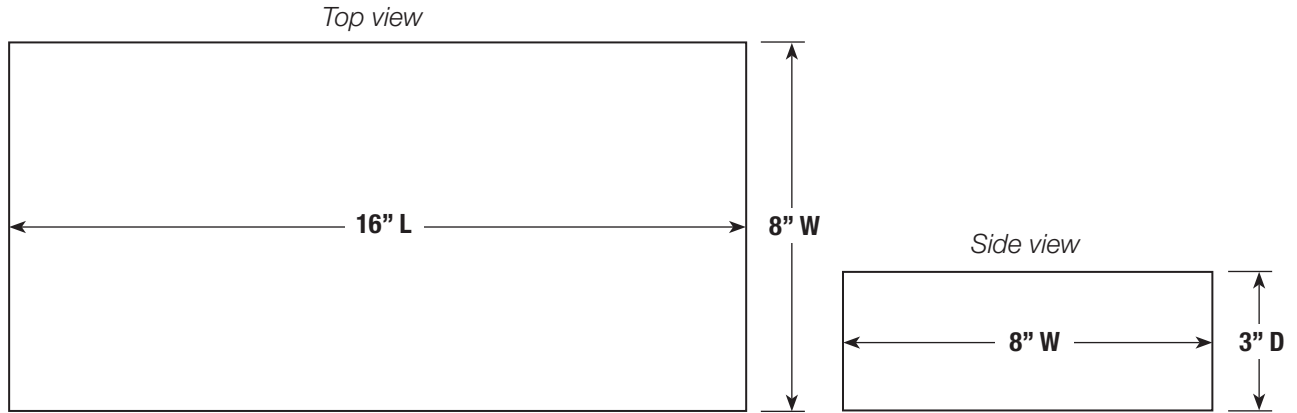
Remote Panel: 6 conductor connection to Price remote alarm panel

Connections: RJ45, RJ-12, Removable terminal blocks.

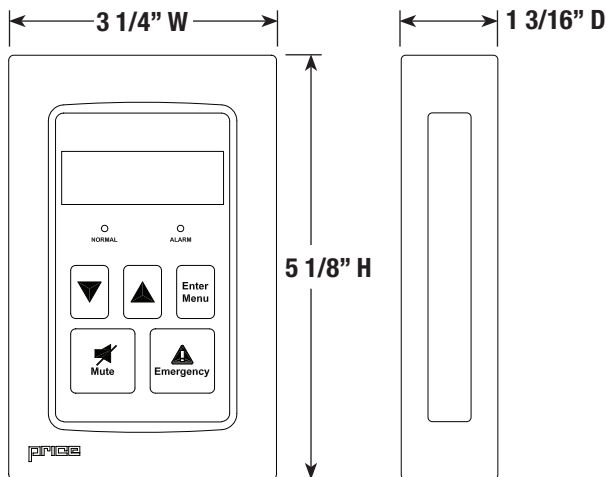
Specifications subject to change without notice

DIMENSIONAL DATA

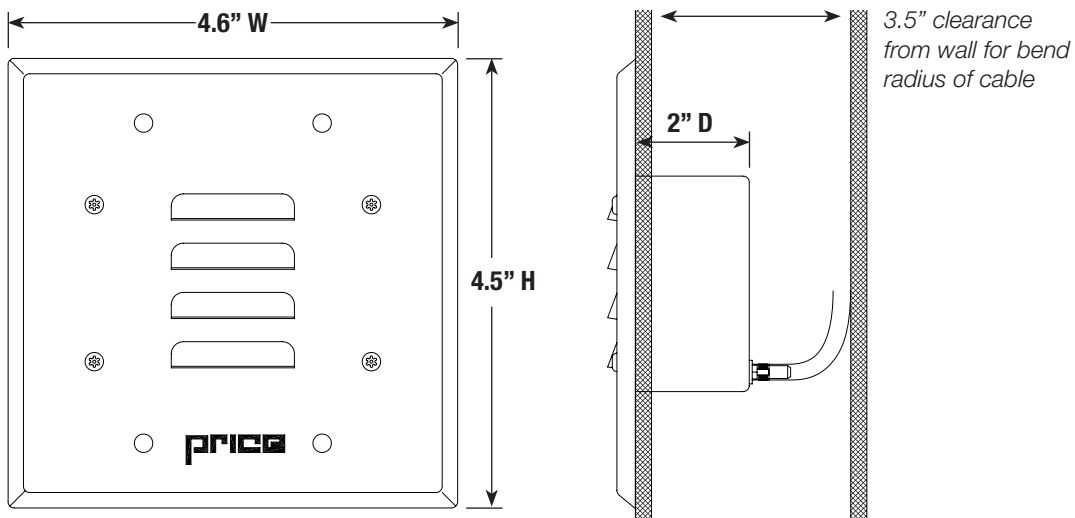
Electrical Enclosure: 8"W x 16"L x 3"D Powder Coat White Paint Finish



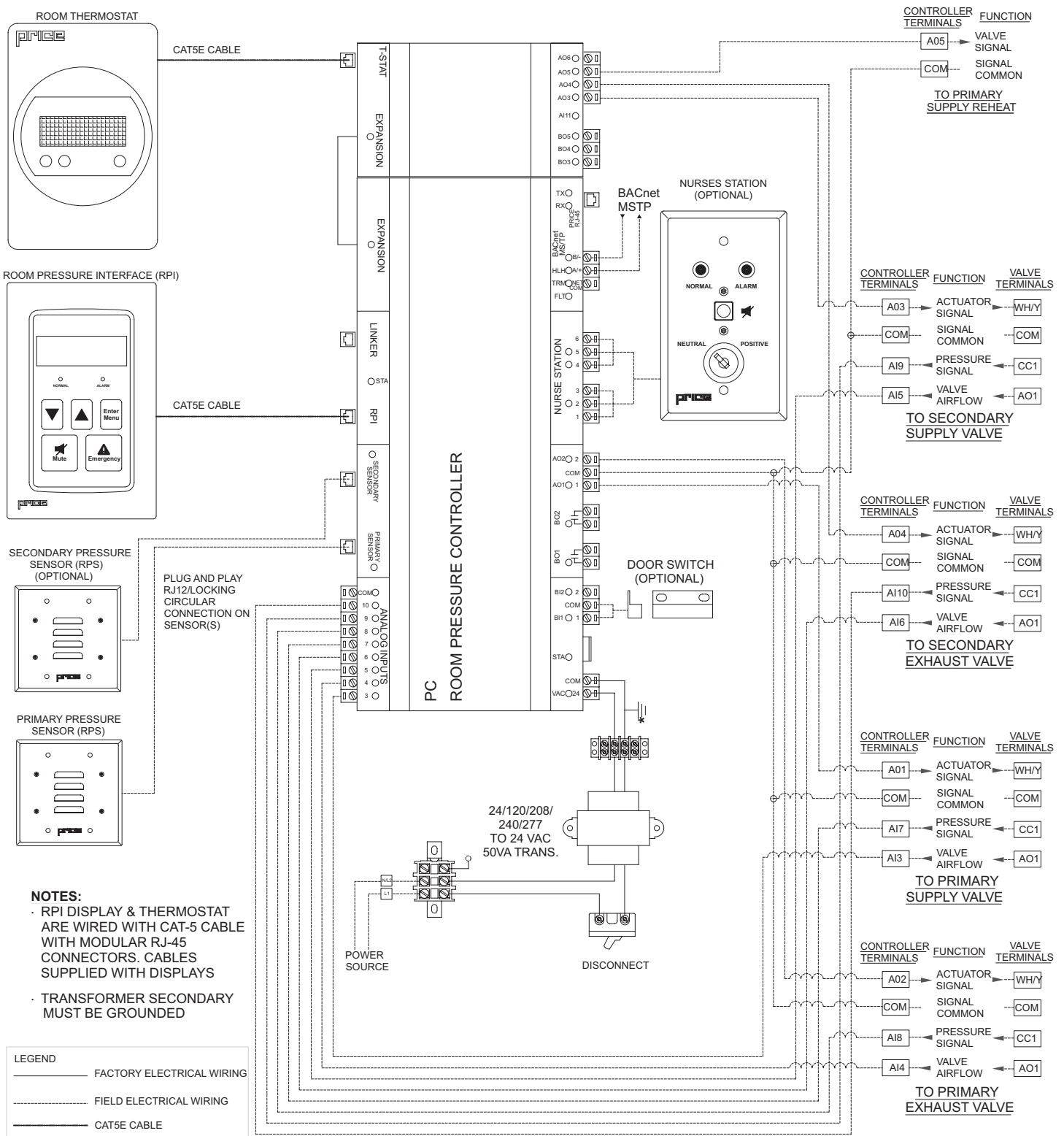
RPI Display: 5 1/8"H x 3 1/4" W x 1 3/16" D Fire Retardant Anti-Bacterial Plastic



RPS Wall Plate: 4.5" H x 4.6" W x 2" D Stainless Steel with Fire Retardant Plastic Sensor Cover

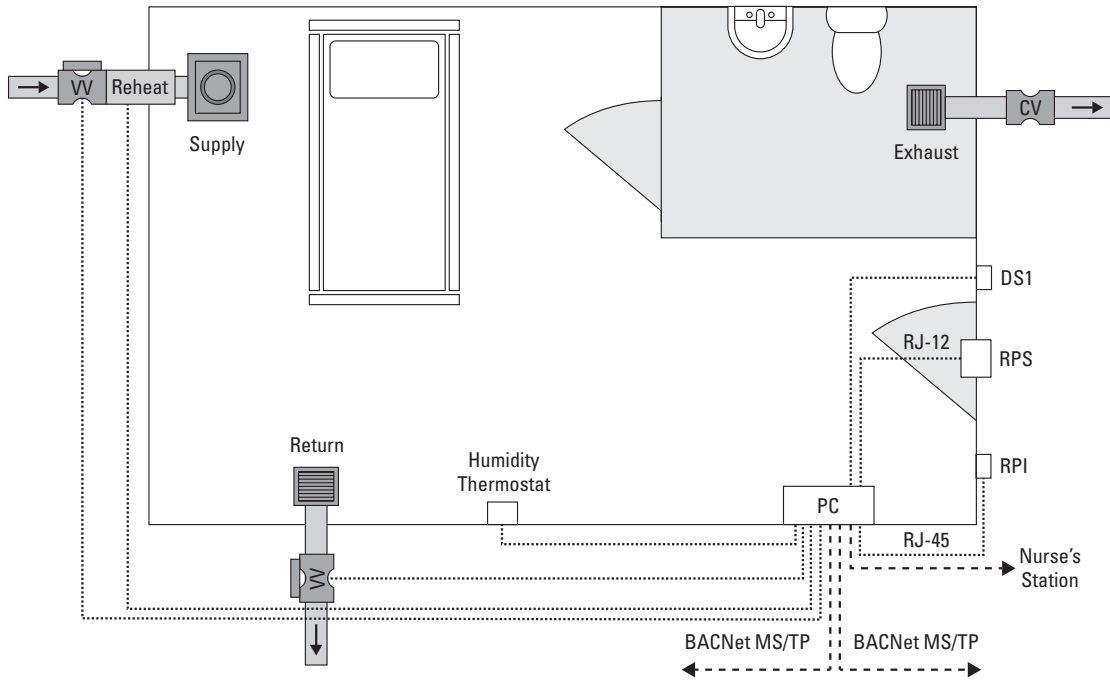


TYPICAL WIRING

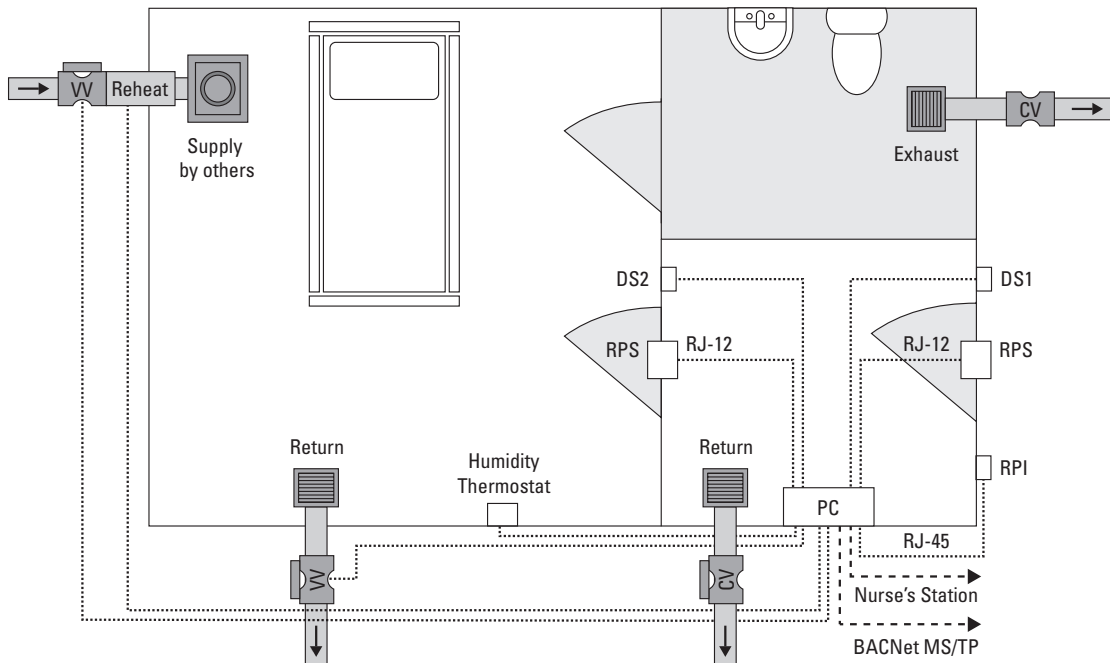


TYPICAL APPLICATION

PC – Dynamic Pressure Control



PC – Dynamic Pressure Control with Anteroom Support



SELECTION CHART

	PM Room Pressure Monitor	PMX Room Pressure Monitor Deluxe	PMT Room Pressure Monitor Touchscreen	PC Room Pressure Controller	TC Tracking Controller	VC Valve Controller
Direct Pressure Control				X		
Dynamic Pressure Control				X		
Volumetric Offset Control				X	X	
Temperature Control				X	X	X
Humidity Control				X		
Pressure Monitor	X	X	X	X		
Secondary Room Support		X		X		
BACnet Communication		X	X	X	X	X
Analog Pressure Output		X	X	X		
Remote Station Interface		X		X		
Door Switch Input		X	X	X		
Keyswitch Interface		X	X	X		
Touchscreen Display			X			

PRODUCT CODE

PC-RPI-RPS1-BAC-LCD-NSK

Product	Interface Type	# of Pressure Sensors	Network Type	Thermostat Type	Nurse's Station Monitor
PC - Room Pressure Controller	RPI - LCD Room Pressure Interface	RPS1 - One Room Pressure Sensor RPS2 - Two Room Pressure Sensors	BAC - Native BACnet MS/TP Network	SENS - T-Stat with Blank Face DIAL - T-Stat with Dial Setpoint LCD - T-Stat with LCD Screen LCDH - T-Stat with LCD Screen and Integrated Humidity Sensor MOT - T-Stat with LCD Screen and Motion Sensor	NS - Remote Audible & Visible Alarm NSK - Remote Audible & Visible Alarm with Keyswitch for Isolation/Setback