# PRESSURA™ MODEL RPC30-PT ROOM PRESSURE CONTROLLER

## Description

The Model RPC30-PT PRESSURA™ Room Pressure Controller is designed to measure and control the pressure differential in hospital rooms using a pressure transducer. It features audible and visual alarms to warn of potential loss of containment and alarm delays with a door switch to avoid nuisance alarms. No Isolation Mode disables the alarms when the room is unoccupied.

#### Features

- Meets CDC requiring visual room pressure alarm
- Stand-alone room pressure controller verifies system operation
- Audible and visual alarms warn staff of unsafe conditions
- No Isolation Mode disables alarms when room is used for non-infectious patients or is unoccupied
- Passwords prevent unauthorized access to menu functions

#### Rooms Monitored and Controlled

| Max # of Rooms Monitored  | 1 |
|---------------------------|---|
| Max # of Rooms Controlled | 1 |

| Selection Chart   | RPC30-PT | RPC30-PT-LON |
|---|----------|--------------|
| Works with Pressure Transducer or<br>TSI's High-Accuracy Through-The-Wall<br>Sensor | •        | •            |
| Visual and Audible Alarms with Delays   | •        | •            |
| Positive, Negative, and No Isolation<br>Modes                                       | •        | •            |
| Configurable Inputs and Outputs   | •        | •            |
| BACnet <sup>®</sup> MS/TP Communications  | •        |              |
| LonWorks <sup>®</sup> Communications  |          | •            |
| Modbus <sup>®</sup> Communications  | •        |              |
| Compatible with TSI Nurse's Station<br>Monitor                                      | •        | •            |

## **Items Included**

- Digital interface module
- (2) Pressure Transducer Pickup Ports

#### **Configurable Inputs**

- 2<sup>nd</sup> Room Pressure Sensor or Temperature Setpoint
- Supply flow
- Door switch or Occupancy Sensor
- Keyswitch or Relative Humidity Sensor
- Door Switch or Room Temperature Sensor
- Keyswitch, Exhaust Flow or Supply Air Temperature Sensor

## **Configurable Outputs**

- Exhaust Control Output
- Supply Control or Room Pressure Analog Output
- Temperature Control, Room Pressure, Supply Flow or Exhaust Flow Analog Output
- Low Alarm Relay Output
- High Alarm or Room Mode Relay Output

#### **Hardware Options**

- Nurse's Station Remote Interface
- Remote audible alarm or audible/visual alarm
- Positive/negative/no isolation key switch
- Dampers or Venturi Valves
- Flow Stations





# Main Screen Displayable Readings\*

- Room Pressure
- Supply Flow
- Exhaust Flow
- Air Change Rate
- Temperature
- Supply Air Temperature
- Relative Humidity
- Occupancy
- Door Open Status
- Room Mode

\* Inputs must be wired to PresSura controller and configured

| Power Requirements                     |                      |  |  |
|--|----------------------|--|--|
| Digital Interface<br>Module (DIM) Each | 24VAC, 50/60 Hz, 3VA |  |  |

## Digital Interface Module Specifications

| Display Range            | Matches Pressure Transducer<br>Range   |
|--------------------------|--|
| Display<br>Resolution    | 5% of reading 0.001 in. $H_2O$   |
| Low Alarm Range          | Matches Pressure Transducer<br>Range   |
| High Alarm Range         | Matches Pressure Transducer<br>Range   |
| Touchscreen<br>Display   | 4.3 inch (10.9 cm) diagonal<br>16:9 aspect ratio, QVGA   |
| Communications           | Modbus®<br>BACnet® MS/TP<br>LONworks® (Optional)   |
| Dimensions               | 7 inch × 4.875 inch × 1.75 inch<br>(17.8 cm × 12.4 cm × 4.4 cm)<br>0.625 inch (1.6 cm)<br>protrusion |
| Operating<br>Temperature | 32 to 120°F (0 to 50°C)  |
| Weight                   | 14 oz (0.40 kg)  |

Specifications subject to change without notice.

| Inputs                    |                            |                            |                                  |                               |                             |  |                               |
|---------------------------|----------------------------|----------------------------|----------------------------------|-------------------------------|-----------------------------|--|-------------------------------|
|                           | Input 1                    | Input 2                    | Input 3                          | Input 4                       | Input 5                     | Input 6                                | Input 7                       |
| TSI Sensor                | 0 to 10 $VDC^1$            | $0$ to $10 \text{ VDC}^2$  |                                  |                               |                             |  |                               |
| Pressure<br>Transducer    | 0 to $10$ VDC <sup>1</sup> | 0 to $10$ VDC <sup>2</sup> |                                  |                               |                             |  |                               |
| Temperature<br>Setpoint   |                            | $0$ to $10 \text{ VDC}^1$  |                                  |                               |                             |  |                               |
| Supply Flow               |                            |                            | $0 \text{ to } 10 \text{ VDC}^1$ |                               |                             |  |                               |
| Door Switch               |                            |                            |                                  | Open /<br>Closed1             |                             | Open /<br>Closed <sup>2</sup>          |                               |
| Occupancy<br>Sensor       |                            |                            |                                  | Open /<br>Closed <sup>1</sup> |                             | Open /<br>Closed <sup>2</sup>          |                               |
| Keyswitch                 |                            |                            |                                  |                               | Open /<br>Closed1           |  | Open /<br>Closed <sup>2</sup> |
| Relative<br>Humidity      |                            |                            |                                  |                               | 0 to 10<br>VDC <sup>1</sup> |  |                               |
| Temperature               |                            |                            |                                  |                               |                             | 1000 Ω<br>Platinum<br>RTD <sup>1</sup> |                               |
| Exhaust Flow              |                            |                            |                                  |                               |                             |  | 0 to $10$ VDC <sup>2</sup>    |
| Supply Air<br>Temperature |                            |                            |                                  |                               |                             |  | 1000 Ω<br>Platinum<br>RTD     |

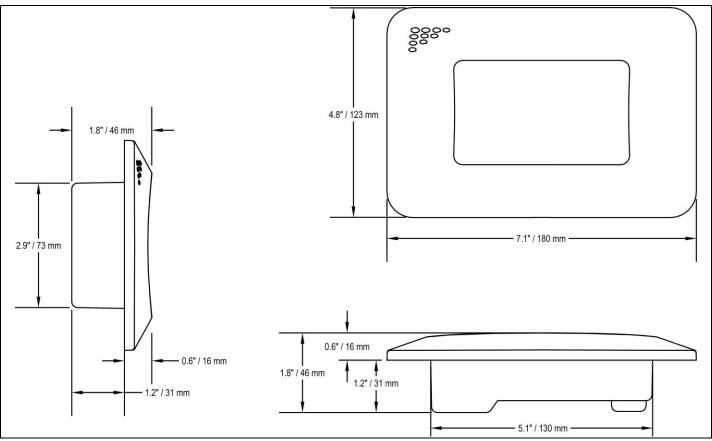
 $^{1}$  Room 1

<sup>2</sup> Anteroom

| Outputs           |                    |                             |                    |                      |                      |
|-------------------|--------------------|-----------------------------|--------------------|----------------------|----------------------|
|                   | Analog<br>Output 1 | Analog<br>Output 2          | Analog<br>Output 3 | Digital<br>Output 1* | Digital<br>Output 2* |
| Current Room      |                    | 0 to 10 VDC /               | 0 to 10 VDC /      |                      |                      |
| Pressure          |                    | 4 to 20 mA                  | 4 to 20 mA         |                      |                      |
| Current Supply    |                    |                             | 0 to 10 VDC /      |                      |                      |
| Flow              |                    |                             | 4 to 20 mA         |                      |                      |
| Current Exhaust   |                    | 0 to 10 VDC /               | 0 to 10 VDC /      |                      |                      |
| Flow              |                    | 4 to 20 mA                  | 4 to 20 mA         |                      |                      |
| Exhaust Control   | 0 to 10 VDC        |                             |                    |                      |                      |
| Supply Control    |                    | 0 to 10 VDC /<br>4 to 20 mA |                    |                      |                      |
| Temperature       |                    |                             | 0 to 10 VDC /      |                      |                      |
| Control           |                    |                             | 4 to 20 mA         |                      |                      |
| Low Alarm Status  |                    |                             |                    | Open / Closed        |                      |
| High Alarm Status |                    |                             |                    |                      | Open / Closed        |
| Room Mode         |                    |                             |                    |                      | Open / Closed        |

\*Digital Outputs close to indicate loss of power.

# Dimensions





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