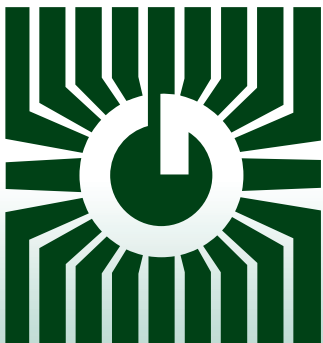


# GREYSTONE

ACCURACY BY DESIGN



## ROOM PRESSURE MONITOR RP Series



### Precision room pressure control/sensing

#### FEATURES:

- LCD indication
- Jumper selectable outputs
- Precision silicon sensor
- Functional and attractive enclosure
- Installer friendly wiring access
- Several ranges available

*Peace of mind  
through reliable  
pressure monitoring*

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM

## DESCRIPTION:

The RP series Room Pressure Monitor is used to measure differential pressure in the range of 0.125 to 1" wc or 30 to 250 Pa.

It combines precision high sensitivity silicon sensing capabilities and the latest ASIC technology to substantially reduce offset errors due to changes in temperature, stability to warm up, long term instability and position sensitivity.

It features an LCD to display the pressure value, several bi-directional pressure ranges and field-selectable output signal types for the most flexible application. The device has an on-board auto-zero function as well as a connection for remote zeroing. It also features an optional alarm output with a variable trip point, a remote buzzer output with silence switch and a flashing alarm LED.

## SPECIFICATIONS:

|                                    |   |
|------------------------------------|---|
| Pressure Ranges .....              | $\pm 1'' \text{ wc}$ , $\pm 0.5'' \text{ wc}$ , $\pm 0.25'' \text{ wc}$ , $\pm 0.125'' \text{ wc}$<br>$\pm 250 \text{ Pa}$ , $\pm 125 \text{ Pa}$ , $\pm 60 \text{ Pa}$ , $\pm 30 \text{ Pa}$ |
| Accuracy .....                     | $\pm 1\% \text{ F.S.O.}$ ( $\pm 2\% \text{ F.S.O.}$ for 0.125"wc and 30 Pa ranges)  |
| Measurement Type .....             | Differential (two port)   |
| Response Time .....                | 0.5 Sec   |
| Thermal Effects .....              | $< \pm 3.5\%$ over compensated range  |
| Compensated Range .....            | 0 - 70°C (32 - 158°F)   |
| Over Pressure .....                | 100" wc (24.9 kPa)  |
| Operating Conditions .....         | 0 - 70 C (32 - 158 F), 10 - 90% RH non-condensing   |
| Power Supply (at transmitter) .... | 15 - 27 Vac, 20 - 35 Vdc (non-isolated half-wave rectified)   |
| Supply Current .....               | $< 30\text{mA}$ (base model), 50mA (with alarm options),<br>70mA (with buzzer connected)  |
| Input Voltage Effect .....         | Negligible over specified operating range   |
| Protection Circuitry .....         | Reverse voltage protected and output limited  |
| Output Signal .....                | 4-20 mA (3-wire), 0-5 Vdc or 0-10 Vdc (3-wire), Pin jumper<br>selectable  |
| Current Output Drive Capability..  | 550 ohms maximum  |
| Voltage Output Drive Capability..  | 2 Kohms minimum   |
| Zero Adjustment .....              | Pushbutton auto-zero (on device or remote)  |
| Wiring Connections .....           | Screw terminal block (14 to 22 AWG)   |
| Pressure Connections .....         | 1/8" ID Flexible tubing   |
| Display .....                      | 3 1/2 digit LCD, 0.4" digit height  |
| Relay Output .....                 | N.O. contact, 2.5 Amps @ 120 Vac, 2.5 Amps @ 30 Vdc   |
| Relay Trip Point .....             | Adjustable from ZERO to SPAN via trimpot  |
| Relay Delay .....                  | 5 seconds on / 5 seconds off  |
| Enclosure .....                    | Executive Space, 71 W x 119 H x 32mm D (2.8" x 4.7" x 1.25")  |
| Weight .....                       | 110 grams (3.9 oz)  |

# ROOM PRESSURE MONITOR PRODUCT ORDERING INFORMATION:

| MODEL | Product Description                                |
|-------|--|
| RP    | Room pressure monitor/transmitter with remote zero |

| CODE | Range       |
|------|-------------|
| 01   | ± 1" WC     |
| 02   | ± 0.5" WC   |
| 03   | ± 0.25" WC  |
| 04   | ± 0.125" WC |
| 05   | ± 250 Pa    |
| 06   | ± 125 Pa    |
| 07   | ± 60 Pa     |
| 08   | ± 30 Pa     |

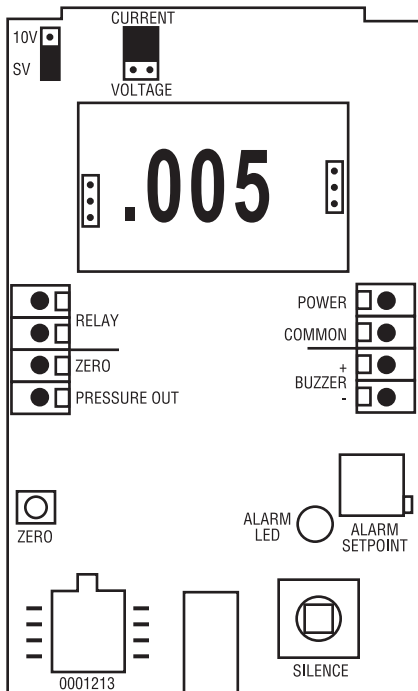
| CODE | Options   |
|------|---|
| LC   | LCD display-Displays the differential pressure value and the alarm setpoint value on demand |
| A    | Alarm functions-LED, Silence switch, Buzzer out, Relay out and Setpoint control             |
| SP   | Stainless plate pick-up port  |
| AE   | Executive (AE) pick-up port   |

RP 04 LCASP

Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

**EXAMPLE:**  
Room pressure sensor, ±0.125" range, c/w LCD, alarm functions and stainless plate pick-up port.  
**RP04LCASP**

## PCB/WIRING INFORMATION



| Terminal     | Function  |
|--------------|---|
| POWER        | From +24 Vac/dc of controller or power supply                   |
| COMMON       | To GND or COMMON of controller                                  |
| PRESSURE OUT | To analog input of controller<br>4-20 mA or 0-5 Vdc or 0-10 Vdc |
| ZERO         | To digital output of controller for remote zeroing              |
| RELAY (2)    | To digital input of controller or external annunciator          |
| BUZZER +     | To plus of remote buzzer  |
| BUZZER -     | To minus of remote buzzer                                       |

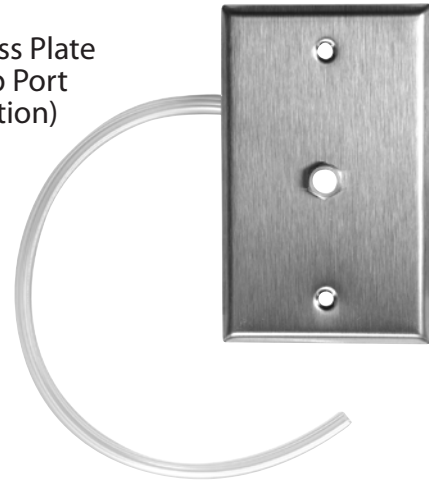
\* Some models do not have all these features

## OPTIONS

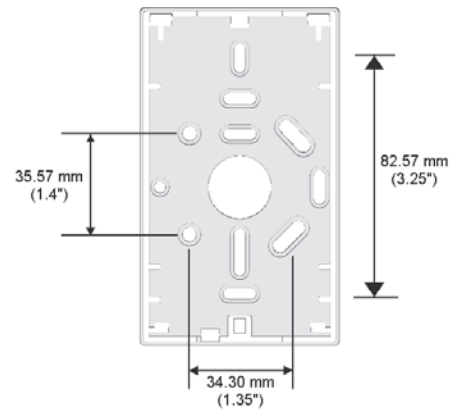
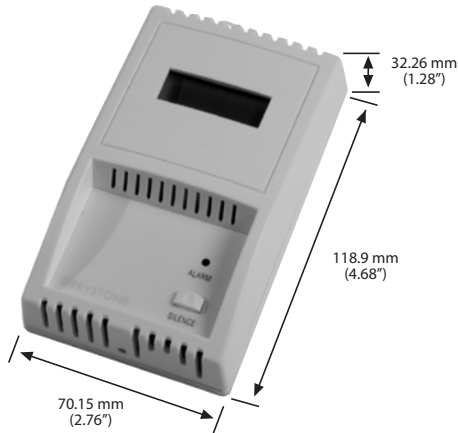
Audible Alarm  
Part # AA-1  
(to be ordered  
separately)



Stainless Plate  
Pick-up Port  
(SP Option)



## DIMENSIONS



**Other GREYSTONE**  
*Accuracy by Design*  
**Products for the**  
**HVAC Professional**

- **Temperature Sensors and Transducers**
- **Humidity Transducers**
- **Pressure Transducers**
- **Current Switches and Sensors**
- **Electronic to Pneumatic (IP)**
- **Transducers**
- **Power Supplies**



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ACCURACY BY DESIGN

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**RoHS**  
COMPLIANT



*Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC sensors and transducers for Building Automation Management Systems.*

*We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.*

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