Model SRPM

Room Pressure Monitor

NOTE: Setra quality standards are based on ANSI-Z540-1. The calibration of this product is NIST traceable.

U.S. Patent nos. 6019002; 6014800

DESCRIPTION

Setra SRPM Room Pressure Monitor is designed for critical low differential pressure applications that require stringent pressure monitoring and alarming. The SRPM can be configured to monitor positive, negative or neutral pressure in protected environments and hospital isolation rooms per CDC guidelines. The SRPM is a complete system that includes a back-lit RGB LCD display with a graphic user interface, which enables access to pressure, security, calibration, and alarm setup. The touch-screen displays menus that guide the user through setup, as well as setting up password protection. Red and green LED's and a local audible alarm (with time delay feature) alert personnel to system status. The SRPM has a NEMA 1(IP20) rated fire retardant plastic housing for indoor applications. True differential pressure is displayed with a resolution of .0001". Setra's patented very low pressure capacitance sensor is dead ended and avoids the potential for cross contamination of the room and reference space as well as eliminating drift that results from fouling of flow based sensors, which by nature have a flow path connecting the protected and reference spaces. Additionally there are 2 levels of password protection available as well as optional BACnet MSTP communications.

FEATURES

- Touch Screen Display
- BACnet®Option
- Password Enabled
- Local Audible Alarm
- Visual Red and Green Room Status Displays
- SPST Alarm Relay
- Door Status Monitor
- Variable Alarm Delay
- Positive and Negative Pressure Monitoring
- Bar Graph Display
- CE and RoHS Compliant

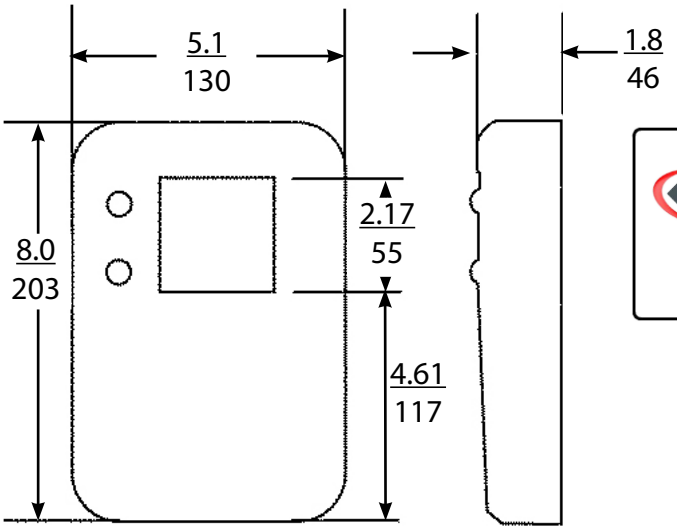
BENEFITS

- Easy to Install, Set-up, and Calibrate
- Fingertip Operation
- Password Security
- Local Display of Room

APPLICATIONS

- Hospital Patient Isolation Wards
- Pharmaceutical Manufacturing
- Semiconductor Fabs
- Cleanrooms
- Research Laboratories
- Animal Resource Facilities

DIMENSIONS



in.
mm

MechTronics Controls
www.hvacusa.com
Phone (877) 632-4876

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SPECIFICATIONS

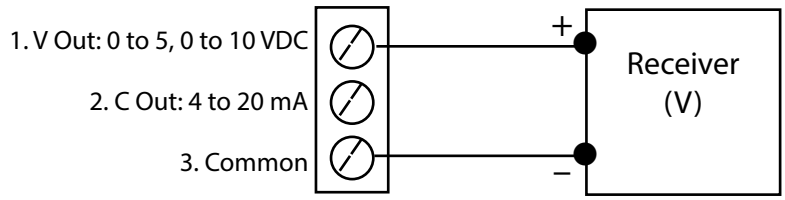
Performance Data		
	Standard	Optional
Accuracy RSS[1] (at constant temp)	±0.25%	±0.5%
Non-Linearity, BFSL	±0.24%	±0.49%
Hysteresis	±0.05%	±0.05%
Non-Repeatability	±0.05%	±0.05%
Zero Setting Tolerance	±0.05% FS	±0.05% FS
Span Setting Tolerance	±0.05% FS	±0.05% FS
Thermal Effects[2]		
Compensated Range °F (°C)	±0.03% FS (±0.05%FS)	
Overpressure	±15"W.C.	
Certifications		
CSA Standard C22.2 No. 0-M 91	General Requirements - Canadian Electrical, Part 1	
CAN/CSA C22.2 No. 0.4-04	Bonding of Electrical Equipment	
CAN/CSA C22.2 610101-1-04	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use Part 1: General Requirements	
ANSI/UL61010-1 (Third Edition)	Safety Requirements for Electrical Equipment for Measurement, Control	

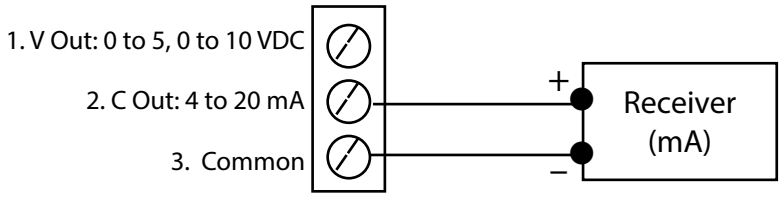
Environmental Data	
Operating Temperature[3] °F (°C)	32 to +120 (0 to +50)
Storage Temperature °F (°C)	-20 to +160 (-30 to +170)
Operating Humidity	5 to 95% RH (Non-Condensing)
Physical Description	
Case	Fire-Retardant Plastic (NEMA 1, IP20 Rated for Indoor Applications)
Dimensions	8"H x 5.1"W x 1.8"D (203 x 130 x 46 mm)
Electrical Connection	Removable Terminal Block
Pressure Fittings	Barbed Fittings for 1/4" O.D. Tubing
Weight (approx.)	1.5 lbs (680g)
Communications Option	BACnet®, MS/TP ASC
Display LCD	128 x 128 RGB Backlit
Status Indicators	Green LED = Normal Red LED = Alarm Backlit LCD
Communication Option BACnet®	MS/TP ASC
Mounting	2-Gang Plaster Ring (Mounts to 2-Gang electrical box)

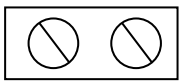
Electrical Data (Voltage)	
Circuit	3-Wire (Exc, Out, Com)
Output[4]	0 to 5 VDC, 0 to 10 VDC
Excitation	
Code V1 Code A1 Code V2 Code A2	85-265 VAC, 50-60 Hz 18-32 VAC, 50-60 HZ 85-265 VAC, BACnet® 18-32 VAC, BACnet®
Alarm Output	SPDT Relay: 1A @ 24 VDC, 1A @ 120 VDC
Power Consumption	5W
Electrical Data (Current)	
Circuit	2-Wire
Output	4 to 20 mA
External Load	0 to 510 ohms
Excitation: Code V1 Code A1	 85-265 VAC, 50-60 Hz 1 8-32 VAC, 50-60 HZ

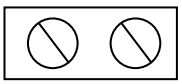
[1] RSS of Non-Linearity, Hysteresis, and Non-Repeatability.
[2] Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.
[3] Operating Temperature limits of the electronics only.
[4] Calibrated into a 50K ohm load, operable into a 5000 ohm load or greater.
Specifications subject to change without notice.

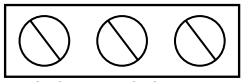
WIRING











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Model SRPM

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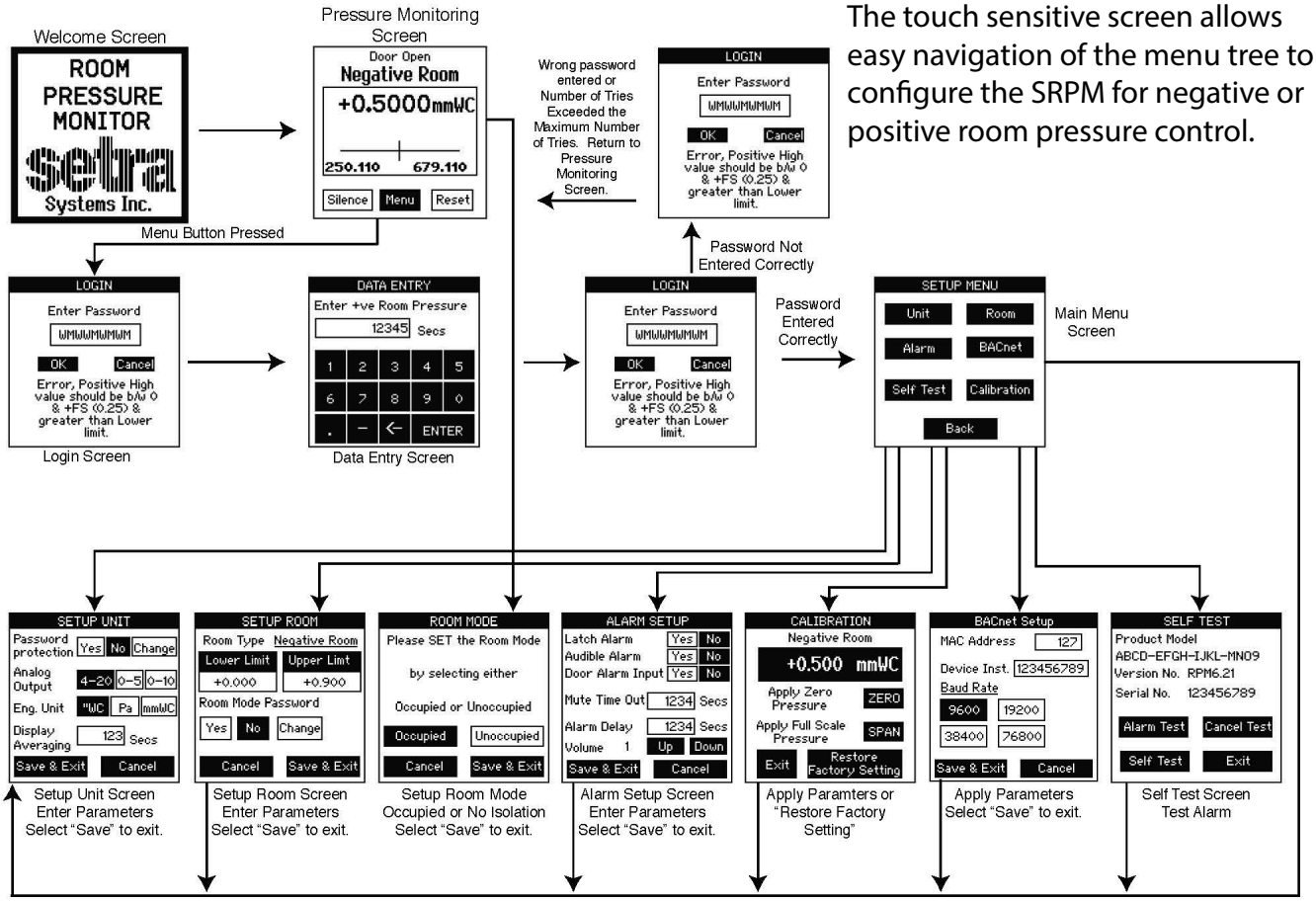
SRPM MENU TREE



Touch-Sense Screen

The touch sensitive screen allows easy navigation of the menu tree to configure the SRPM for negative or positive room pressure control.

If pressure is Normal, the screen is Green

If pressure is Normal, and Door is open, the screen is Yellow

If pressure falls outside of preset limits (Alarmed State), the screen is Red

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ORDERING INFORMATION

S	R	P	M	–						–			–	

Model	Range Code	Excitation/Output		Accuracy	
SRPM = SRPM	See Table 1 Below	A1	24 VAC/4-20 mA or 0-5 and 0-10 VDC	E	±0.5% FS
		V1	120/240 VAC/4-20 mA or 0-5 and 0-10 VDC	V	±0.25% FS
		A2	24 VAC w/ BACnet®		
		V2	120/240VAC BACnet®		

Table 1. Range Specification

RANGE CODE	INCHES W.C.
005WB	±5
2R5WB	±2.5
001WB	±1.0
0R5WB	±0.5
R25WB	±0.25
0R1WB	±0.1
R05WB	±0.05

BACnet®
"BACnet" is a registered trademark of ASHRAE"

Please contact factory for versions not shown.

Ordering Example: Part No. SRPM005WBA1E for a SRPM, ±5 in. W.C. Range, 24 VAC EXC. with 4 to 20 mA output, and ±0.5% FS Accuracy.

ACCESSORIES

Model SRAN

Remote Annunciator

Green LED, Normal Indication
Red LED, Alarm Indication
Buzzer, Audio Alarm, ADJ. from SRPM Acknowledge Switch

Order Part Number: S R A N

Model RPS

Room Pressure Snubber (Wall Mount Pressure Taps)

The RPS is a stainless steel room static pressure sensor that has the same footprint (2.75" W X 4.5" H) as your standard electrical wall plate.

Order Part Number: R P S

SSP-SRPM Rev. E 12/18/13

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