



# PS-MRC Series

Multi-Range Critical Pressure Transducer



## Overview

The PS-MRC Series is a multi-range low differential pressure transducer uses a dead-ended capacitive sensing element that requires minimal amplification and delivers excellent accuracy and longterm stability. The PS-MRC Series is the industries first multi-range sensor designed for critical environments. It is the only multi-range sensor available with  $\pm 0.5\%$  FS accuracy and field selectable ranges down to 0.1" W.C., a requirement for critical applications. The PS-MRC Series has 4 selectable ranges and 3 selectable outputs, easily adjustable on the job with a flip of a switch or jumper. The PS-MRC Series is offered with 3 different housing configurations: Duct Probe, DINrail or Wall Mount and a universal design that incorporates all 3 configurations in one to address any installation changes on the job site.

## Applications

- ☐ Service/Retrofit Friendly
- ☐ Sub-Contractors- Quick Installation
- ☐ Flexible for Building Specification Changes
- ☐ Service Technicians- Quick & Accurate Re-configuration
- ☐ Hospitals
- ☐ Isolation Rooms
- ☐ Vivariums

## Features & Benefits

- ☐ Field Configurable Duct Probe
- ☐ 4 Digit LCD
- ☐ Field Selectable Range
- ☐ Field Selectable Output
- ☐ Simple 5-Step Setup
- ☐ Field Accessible Push-Button Zero & Span
- ☐ External Mounting Tabs & Optional DINrail
- ☐ Unregulated AC/DC Operation
- ☐ IP67 Rated Housing

## Model Selection

PS-MRCSC	Multi-Range Critical Pressure Transducer, 0.1, 0.25"W.C. / 25, 50 Pa / $\pm 0.1$ , $\pm 0.25$ "W.C / $\pm 25$ , $\pm 50$ Pa, Standard (Base Mount), 1/2" Conduit with Cal Certification <sup>2</sup>
PS-MRCUC <sup>1</sup>	Multi-Range Critical Pressure Transducer, 0.1, 0.25"W.C. / 25, 50 Pa / $\pm 0.1$ , $\pm 0.25$ "W.C / $\pm 25$ , $\pm 50$ Pa, Universal, 1/2" Conduit with Cal Certification <sup>2</sup>
PS-MRCDC	Multi-Range Critical Pressure Transducer, 0.1, 0.25"W.C. / 25, 50 Pa / $\pm 0.1$ , $\pm 0.25$ "W.C / $\pm 25$ , $\pm 50$ Pa, DIN Rail, 1/2" Conduit with Cal Certification <sup>2</sup>
PS-MRCPC	Multi-Range Critical Pressure Transducer, 0.1, 0.25"W.C. / 25, 50 Pa / $\pm 0.1$ , $\pm 0.25$ "W.C / $\pm 25$ , $\pm 50$ Pa, Duct Probe, 1/2" Conduit with Cal Certification <sup>2</sup>

Notes:

1. Code U, Universal unit includes Duct Probe and DIN Rail options.
2. Calibration certificate is standard and is provided for highest range  $\pm 0.25$ "W.C. on  $\pm 50$  Pa.

# Product Specifications

## Performance Data

Standard:

Accuracy RSS <sup>1</sup> (at constant temp)	±0.5% FS
Compensated Range °F (°C)	32 to 122°F (0 to 50°C)
Thermal Effects <sup>2</sup> %FS/°F(°C)	0.03 (0.054)
Maximum Line Pressure	10 PSI
Overpressure	1 PSI
Long Term Stability (max.)	1.0% FS/YR

## Position Effect

Zero Offset %FS/G	0.5%
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(Unit is factory calibrated at 0g effect in the vertical position)

## Physical Description

Case	Fire-Retardant Polycarbonate (UL 94 V-0 Approved), Hinged Lid
Mounting	Two Screw Holes Vertical Position
Electrical Connection Block	Removable Screw Terminal
Pressure Fitting	3/16" O.D. Barbed Brass
Zero	Push Button
Span	Push Button
Weight (approx.)	8 Ounces

## Environmental Data

Operating Temperature <sup>3</sup>	32 to 122°F (0 to 50°C)
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## Electrical Data

Excitation Range	13 to 30 VDC/18 to 24 VAC (Voltage Output) 13 to 30 VDC (4 to 20mA output at terminals)
Current Consumption	30mA (max)
Mis-Wiring	Reverse Excitation Protection
Field Selectable Output <sup>4</sup>	0 to 5 V, 0 to 10V (3-wire), 4 to 20mA (2-wire)
Output Resistance (Voltage Output)	10 Ohms (max)
Load Resistance (Voltage Output)	10 K-Ohms (min)
Loop Resistance (4-20mA)	0 to 800 Ohms
Approval	CE & RoHS Compliant

## Pressure Media

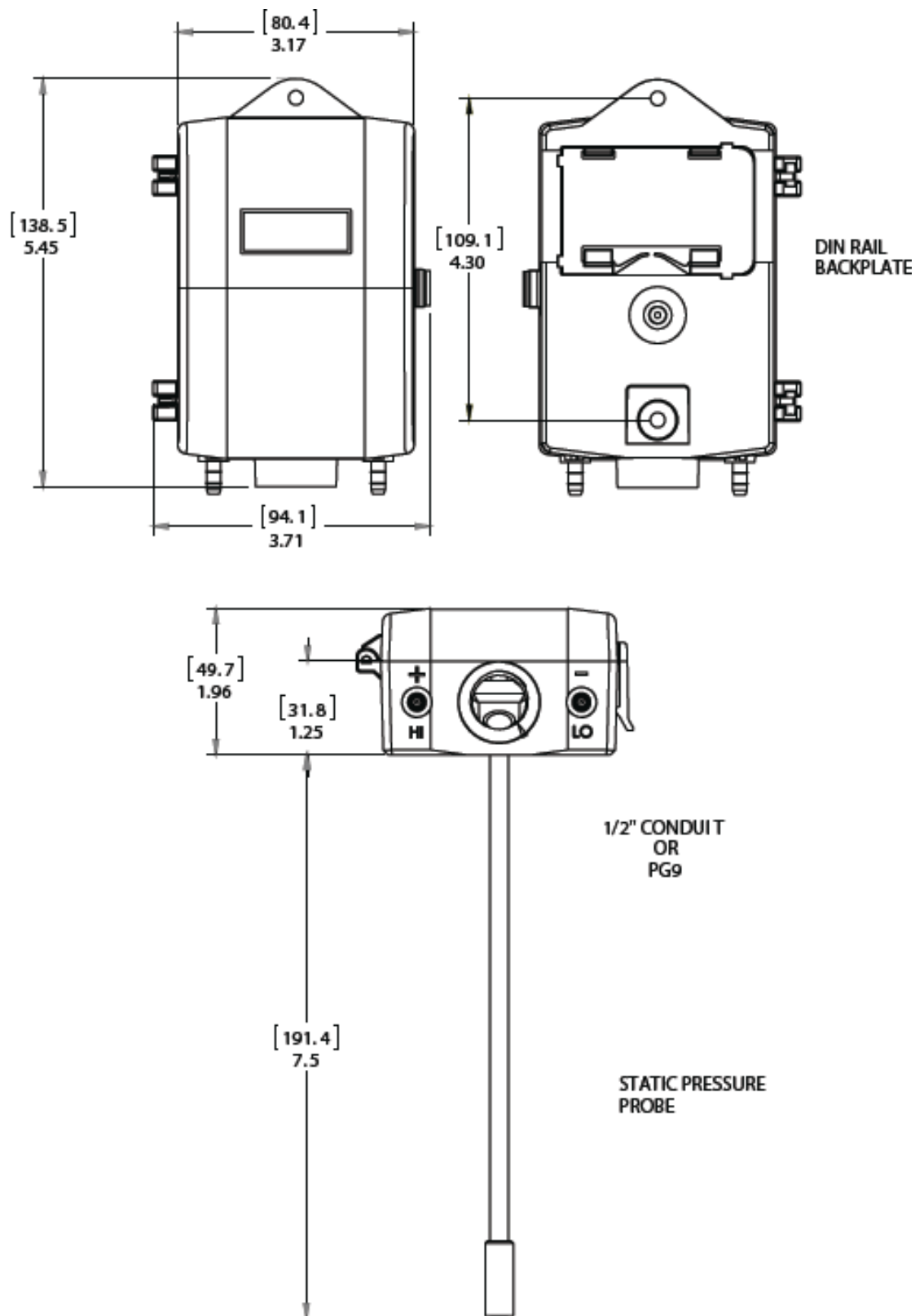
Typically air or similar non-conducting gases.

Notes:

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. Pressure media temperatures may be considerably higher.
4. Calibrated into a 50K ohm load, operable into a 10K ohm load or greater.
5. Span (Full Scale) output factory set to within 1%.
6. Calibrated at factory with a 24 VDC loop supply voltage and a 250 ohm load.
7. Span (Full Scale) output factory set to within ±0.16mA.

Specifications subject to change without notice.

## Dimensions



Specifications subject to change without notice.  
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