Setra's Model MRC 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 MRC is the industry's first multi-range sensor designed for critical environments. It is the only multi-range sensor available with ±0.5% FS accuracy and field selectable ranges down to 0.1" W.C., a requirement for critical applications. The MRC has 4 selectable ranges and 3 selectable outputs, easily adjustable on the job with a flip of a switch or jumper. The MRC is offered with 3 different mounting options: Duct Probe, DIN rail or Wall Mount and a universal design that incorporates all 3 configurations in one to address any installation changes on the job site.

Industry First 0.5% FS Accuracy Multi-Range
The Setra MRC is the first multi-range transducer designed for use in Critical Environments. No other multi-range transducer product offers better than 1% FS accuracy; a requirement in most critical applications. The Setra MRC is available down to 0.1" W.C. with 0.5% FS accuracy.

Field Selectable Universal Design
The MRC has 4 selectable ranges and 3 selectable outputs, giving the flexibility to make changes on the job site. The MRC is field configurable for range, mounting (wall mount standard; DIN rail and duct versions optional), output (mA or voltage) and engineering units (W.C. or Pascals). This flexibility means that the contractor can use the MRC for all of their critical needs.

Robust Enclosure for Harsh Environments
The MRC housing is a robust IP67 rated design and is sealed with a gasket to make it wash down capable for difficult applications. The MRC can accommodate a conduit fitting that make installation and wiring easier.

The Setra Sensor
The core technology of the MRC is the all stainless steel capacitive sensing element. Setra designs and manufactures all of their sensing elements resulting in full control over the process and quality of every single sensor. The welded dead-ended capacitive sensors requires minimal amplification and delivers excellent accuracy and longterm stability. Setra's technology has been used in over 8 million installations and has the highest field acceptance rate in the industry.
Model MRC
Multi-Range Critical Pressure Transducer

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model</th>
<th>Field Selectable Ranges</th>
<th>Configuration</th>
<th>Options</th>
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<tbody>
<tr>
<td>MRC</td>
<td>Unidirectional Pressure Ranges</td>
<td>Standard (Base Mount)</td>
<td>C 1/2&quot; Conduit w/ Cal Certification*</td>
</tr>
<tr>
<td></td>
<td>Bidirectional Pressure Ranges</td>
<td>Universal*</td>
<td>D PG9 w/ Cal Certification*</td>
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<tr>
<td>0.1”W.C.</td>
<td>25 Pa ±0.1”W.C. ±25 Pa</td>
<td>U Duct Probe</td>
<td></td>
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<tr>
<td>0.25”W.C.</td>
<td>50 Pa ±0.25”W.C. ±50 Pa</td>
<td></td>
<td></td>
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</tbody>
</table>

*Universal unit includes Duct Probe and DIN rail options.
*Calibration certificate is standard and is provided for highest range ±0.25”W.C. on ±50 Pa.

Ordering Example: MRCUC= Model MRC, Universal Configuration, with 1/2” Conduit.

DIMENSIONS

Performance Data | Environmental Data
---|---
Accuracy RSS\(^1\) (at constant temp) | ±0.5% FS | Operating Temperature\(^2\) | 32 to 122°F (0 to 50°C)
Compensated Range ºF (ºC) | 32 to 122°F (0 to 50°C) | Excitation Range | 13 to 30 VDC/18 to 24 VAC (Voltage Output) 13 to 30 VDC (4 to 20mA output at terminals)
Thermal Effects\(^1\) %FSºF(ºC) | 0.03 (0.054) | Current Consumption | 30mA (max)
Maximum Line Pressure | 10 PSI | Mis-Wiring | Reverse Excitation Protection
Overpressure | 1 PSI | Field Selectable Output* | 0 to 5 V, 0 to 10V (3-wire), 4 to 20mA (2-wire)
Long Term Stability (max.) | 1.0% FS/YR | Output Resistance (Voltage Output) | 10 Ohms (max)
Position Effect | Load Resistance (Voltage Output) | 10 K-Ohms (min)
Zero Offset %FS/G | 0.5% | Loop Resistance (4-20mA) | 0 to 800 Ohms
(Use is factory calibrated at 0g effect in the vertical position) | Approval | CE & RoHS Compliant

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. Barb LS Brass
Zero | Push Button
Span | Push Button
Weight (approx.) | 8 Ounces

Specifications subject to change without notice.

\(^1\)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.
\(^5\)Calibrated at a factory with a 24 VDC loop supply voltage and a 250 ohm load.
\(^6\)Span (Full Scale) output factory set to within ±1%.