

SERIES MS2 | DIFFERENTIAL PRESSURE TRANSMITTER

FEATURES/BENEFITS

- Field selectable ranges and output signal reduce inventory and the chances of ordering an incorrect part
- BACnet or Modbus serial communications reduce wiring cost by daisy-chaining the transmitters
- Our integral field-upgradeable display or plug-in remote display tool save upfront material cost and allow for local viewing of measurements

APPLICATIONS

- Filter monitoring in air handler units
- Building pressure in pharmaceutical-semiconductor clean rooms
- Duct static pressure in commercial buildings
- Air velocity/flow in VAV systems

DESCRIPTION

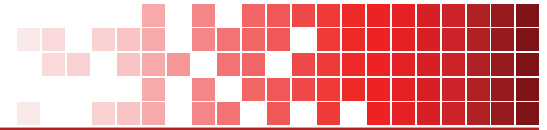
The **SERIES MS2** Magnesense® II Differential Pressure Transmitter combines the proven stable piezo technology and the versatility of our original Series MS with additional features to reduce installation time and simplify ordering. Like the original Series MS, the second generation transmitter can be used as a linear pressure output or a linear velocity output with the square root extraction done in the transmitter. Additional parameters have been included to expand the square root capability to include flow measurements.



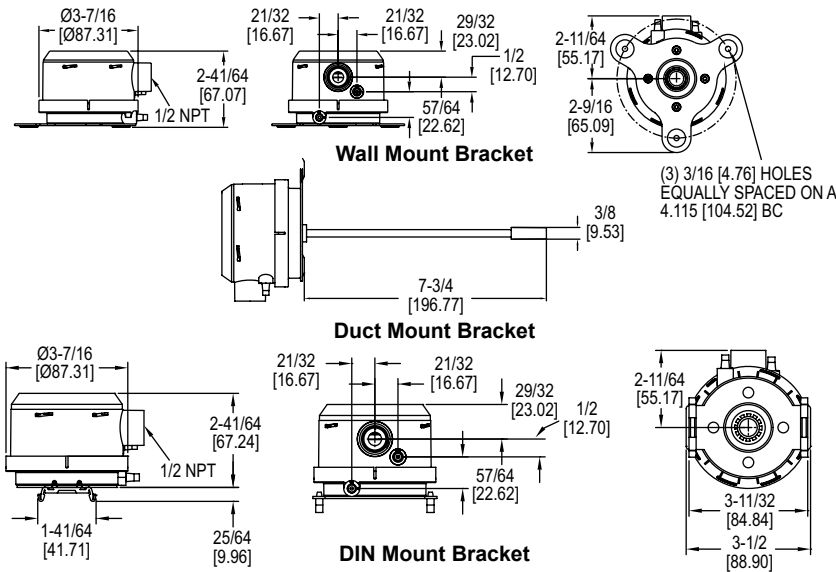
SPECIFICATIONS

Supported Baud Rates	9600, 19200, 38400, 57600, 76800, 115200.
Data Size	8.
Parity	None.
Stop Bits	1.
Service	Air and non-combustible, compatible gases.
Wetted Materials	Consult factory.
Typical Accuracy	±1% FS for 0.15 in w.c. (40 Pa), 0.25 in w.c. (50 Pa), 0.5 in w.c. (100 Pa), 2 in w.c. (500 Pa), 3 in w.c. (750 Pa), 5 in w.c. (1250 Pa), 10 in w.c. (2 kPa), 15 in w.c. (3 kPa), 25 in w.c. (5 kPa), 28 in w.c. (6.975 kPa); ±2% FS for 0.1 in w.c. (25 Pa), 1 in w.c. (250 Pa), and all bi-directional ranges.
Stability	±1% / year FSO.
Temperature Limits	0 to 150°F (-18 to 66°C).
Pressure Limits	1 psi max., operation; 10 psi burst.
Power Requirements	10 to 35 VDC (2-wire), 17 to 36 VDC or isolated 21.6 to 33 VAC (3-wire).
Output Signals	4 to 20 mA (2-wire), 0 to 5 VDC, 0 to 10 VDC (3-wire).
Response Time	Adjustable: 0.5 to 15 sec. time constant. Provides a 95% response time of 1.5 to 45 seconds.
Zero & Span Adjustments	Digital push buttons.
Loop Resistance	Current output: 0 to 1250 Ω max; Voltage output: Min. load resistance 1 kΩ.
Current Consumption	40 mA max.
Display (Optional)	5 digit LCD.
Electrical Connections	3-wire removable European style terminal block for 16 to 22 AWG.
Electrical Entry	1/2" NPS thread.
Process Connection	3/16" ID tubing (5 mm ID); Max. OD 9 mm.
Enclosure Rating	IP66.
Mounting Orientation	Diaphragm in vertical position.
Weight	8.0 oz (230 g).
Agency Approvals	BTL, CE.





DIMENSIONS



HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.

SERIES	PROBE	MS2	-W	101	-x	OPTIONS
MS2 - Differential pressure transmitter	-W - Wall mount bracket -D - Duct mount bracket -N - DIN mount bracket					-LCD - Units with display -BC - BACnet Communications -MC - Modbus® Communications -NIST - NIST traceable calibration certificate -FC - Factory calibration certificate

*Bidirectional ranges for W and N. Unidirectional ranges for D.

ACCURACY AND PRESSURE RANGE

UNIDIRECTIONAL

101 - 0.1 to 5.5 in w.c./25 to 125 pa/2.5 to 10 mm w.c.
102 - 1 to 5 in w.c./250 to 1250 pa/25 to 125 mm w.c.

BIDIRECTIONAL

103* - ± 10 to 28 in w.c./ ± 2500 to 6975 pa/250 to 700 mm w.c.
111 - ± 0.1 to 5 in w.c./ ± 25 to 125 pa/2.5 to 10 mm w.c.
112 - ± 1 to 5 in w.c./ ± 250 to 1250 pa/ ± 25 to 125 mm w.c.

ACCESSORIES

Model	Description
A-151	Cable gland for 5 to 10 mm diameter cable
A-MS2-LCD	Field upgradeable display
A-435-A	Remote display tool
A-480	Plastic static pressure tip
A-481	Installer kit; includes 2 plastic static pressure tips and 7 ft (2.1 m) of PVC tubing
A-489	4" 303 SS straight static pressure tip with flange
A-302F-A	4" 303 SS static pressure tip with mounting flange; for 3/16" ID rubber or plastic tubing
SCD-PS	100 to 240 VAC/VDC to 24 VDC power supply

Important Notice: Dwyer Instruments, Inc. reserves the right to make changes to or discontinue any product or service identified in this publication without notice. Dwyer advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current.

