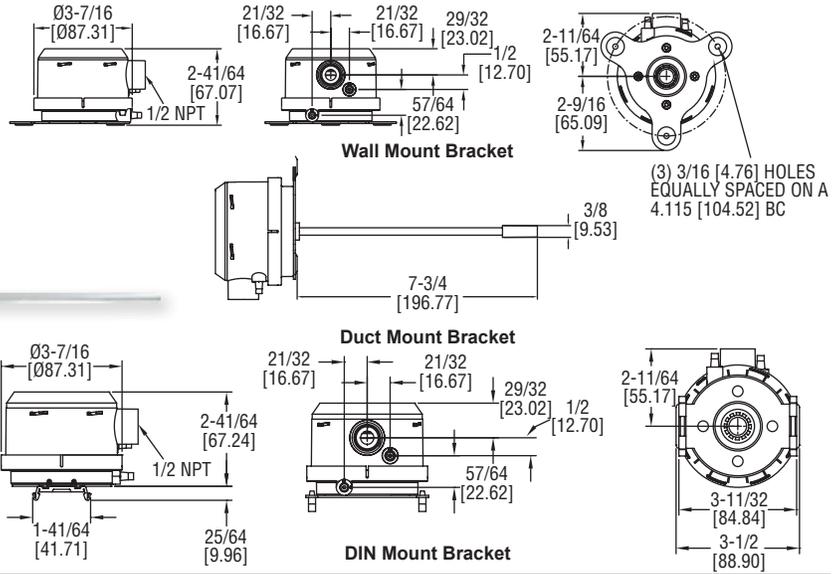
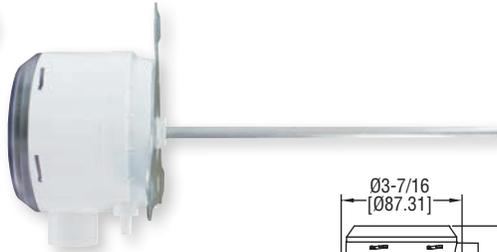




MAGNESENSE® II DIFFERENTIAL PRESSURE TRANSMITTER

Monitors Pressure, Air Velocity & Air Flow, BACnet/Modbus® Communications



Scan here to watch product video

The **SERIES MS2** MagneSense® II Differential Pressure Transmitter combines the proven stable Hall Effect sensing technology 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.

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

Model	in w.c.	Pa	mm w.c.	kPa
MS2-W101	0.10, 0.15, 0.25, 0.50	25, 40, 50, 125	2.5, 4, 6, 10	0.025, 0.04, 0.05, 0.125
MS2-W111	±0.10, ±0.15, ±0.25, ±0.50	±25, ±40, ±50, ±125	±2.5, ±4, ±6, ±10	±0.025, ±0.04, ±0.05, ±0.125
MS2-W102	1, 2, 3, 5	250, 500, 750, 1250	25, 50, 75, 125	0.25, 0.5, 0.75, 1.25
MS2-W103	10, 15, 25, 28	2500, 3500, 5000, 6975	250, 350, 500, 697.5	2.5, 3.5, 5.0, 6.975

Note:
For duct mount static probe change W to D. **Example:** MS2-D101
For DIN rail mounting change W to N. **Example:** MS2-N101

OPTIONS	To order add suffix:	Description
-LCD		Units with display
Example: MS2-W101-LCD		
-BC		BACnet Communications
Example: MS2-W101-BC		
-MC		Modbus® Communications
Example: MS2-W101-MC		
-NIST		NIST traceable calibration certificate
Example: MS2-W101-NIST		
-FC		Factory calibration certificate
Example: MS2-W101-FC		

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.

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

Modbus® is a registered trademark of Schneider Automation, Inc.
Process Tubing Options: See page 443 (Gage Tubing Accessories)

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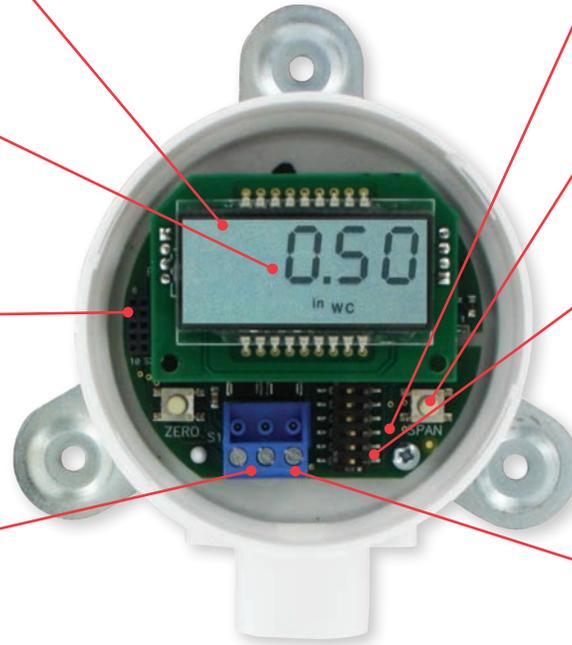
Monitors Pressure, Air Velocity & Air Flow, BACnet/Modbus® Communications

Field Upgradeable LCD. No need to order two separate transmitters. Simply stock a transmitter and display and you can satisfy any customer's requests. Simply remove cover and snap the LCD onto the board.

Large Integral LCD. Second generation Magnesense® has a larger LCD that includes the engineering units. Display also has 5 digits allowing measurements up to 99,999 to be displayed directly.

Remote Display Tool reduces instrument cost by eliminating need for each transmitter to have its own display. The buttons on the display tool also provide a means to zero and span the units without reaching into the transmitter.

Removable Terminal Block ease installation by allowing for the wiring to be done outside of the housing where the installer has more room.



Field Selectable Ranges in metric or English. Lowers stock and inventory requirements. You'll always have the right transmitter for every job.

Digital Push Button Zero and Span. Reduces calibration time significantly over other transmitters that utilize potentiometers. Lowers maintenance time and costs.

Field Selectable Air Velocity and Flow Modes for fan and blower applications. Unit provides square root output that accurately tracks fpm or m/s for velocity measurements. Now area can be programmed to directly display cfm or m³/hr for volumetric flow measurements. No need for a smart programmable indicator or PLC to convert pressure to air flow. Reduces components and installation time lowering overall costs.

Simultaneous Current/Voltage Output reduces inventory by combining 0 to 10 V, 0 to 5 V and 4 to 20 mA models into one model. Both outputs are always present allowing field selection of which signal to use and the other signal can be used for local diagnostic without interrupting system.