

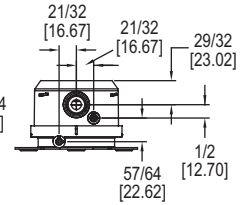
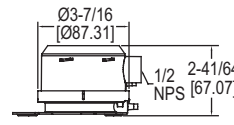
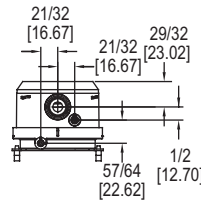
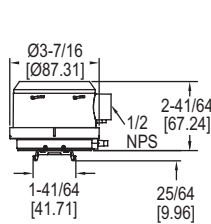
# MAGNESENSE® DIFFERENTIAL PRESSURE TRANSMITTER

Monitors Pressure and Air Velocity

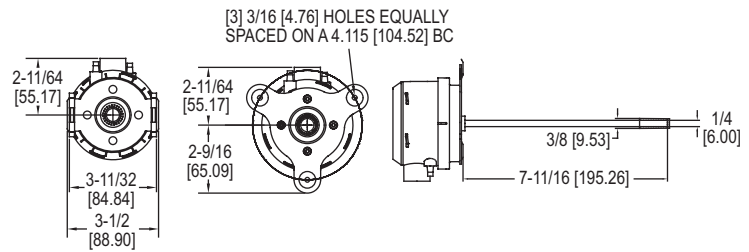
CALIBRATION SERVICES AVAILABLE



Standard MS with optional LCD



Duct mount MS with static probe



The **Series MS Magnesense® Differential Pressure Transmitter** is an extremely versatile transmitter for monitoring pressure and air velocity. This compact package is loaded with features such as:

**FEATURES/BENEFITS**

- Field selectable English or Metric ranges
- Field upgradeable LCD display
- Adjustable damping of output signal (with optional display)
- Ability to select a square root output for use with pitot tubes and other similar flow sensors

**APPLICATIONS**

- Building pressure monitoring
- Duct pressure monitoring
- Fan velocity measurement
- Zone differential pressure monitoring
- Filter condition monitoring

Along with these features, the patented magnetic sensing technology provides exceptional long term performance and enables the Magnesense® Differential Pressure Transmitter to be the single solution for your pressure and flow applications.

MODEL CHART		
Model	Output	Selectable Ranges
MS-321*	0-10 V	0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)
MS-721*	0-5 V	0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)
MS-311*	0-10 V	1 in, 2 in, 5 in w.c. (250, 500, 1250 Pa)
MS-711*	0-5 V	1 in, 2 in, 5 in w.c. (250, 500, 1250 Pa)
MS-131	4-20 mA	10 in w.c. (2 kPa)
MS-141	4-20 mA	15 in w.c. (3 kPa)
MS-151	4-20 mA	25 in w.c. (5 kPa)
MS-221	0-10 V	±0.1 in, 0.25 in, 0.5 in w.c. (±25, 50, 100 Pa)
MS-621	0-5 V	±0.1 in, 0.25 in, 0.5 in w.c. (±25, 50, 100 Pa)

\*Note: For duct mount static pressure probe, change last digit from 1 to 2.  
Example: MS-122

OPTIONS	
To order add suffix:	Description
-FC	Factory calibration certificate
-LCD	Units with display
-NIST	NIST traceable calibration certificate

Example: MS-021-FC

**SPECIFICATIONS**

**Service:** Air and non-combustible, compatible gases.  
**Wetted Materials:** Consult factory.  
**Accuracy:** ±1% for 0.25" (50 Pa), 0.5" (100 Pa), 2" (500 Pa), 5" (1250 Pa), 10" (2 kPa), 15" (3 kPa), 25" (5 kPa); ±2% for 0.1" (25 Pa), 1" (250 Pa) and all bi-directional ranges.  
**Stability:** ±1% FS/year.  
**Temperature Limits:** 0 to 150°F (-18 to 66°C).  
**Pressure Limits:** 1 psi maximum, operation; 10 psi, burst.  
**Power Requirements:** 10-35 VDC (2-wire); 17-36 VDC or isolated 21.6-33 VAC (3-wire).  
**Output Signals:** 4-20 mA (2-wire); 0-5 V, 0-10 V (3-wire).  
**Response Time:** 300 ms.  
**Zero and Span Adjustments:** Digital push-button.  
**Loop Resistance:** Current output: 0-1250 Ω max; Voltage output: min. load resistance 1 kΩ.  
**Current Consumption:** 40 mA max.  
**Display (optional):** 4 digit LCD.  
**Electrical Connections:** 4-20 mA, 2-Wire: European style terminal block for 16 to 26 AWG; 0-10 V, 3-Wire: European style terminal block for 16 to 22 AWG.  
**Electrical Entry:** 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable.  
**Process Connections:** 3/16" (5 mm) ID tubing. Maximum OD 9 mm.  
**Enclosure Rating:** NEMA 4X (IP66).  
**Mounting Orientation:** Diaphragm in vertical position.  
**Weight:** 8.0 oz (230 g).  
**Compliance:** CE.

**ACCESSORIES**

Model	Description
A-151	Cable gland for 5 to 10 mm cable
A-302F-A	303 SS Static pressure tip with mounting flange. For 3/16" ID rubber or plastic tubing. 4" insertion depth. Includes mounting screws
A-435	Field upgradeable LCD
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
SCD-PS	100-240 VAC/VDC to 24 VDC power supply

Process Tubing Options: See page 453 (Gage Tubing Accessories)