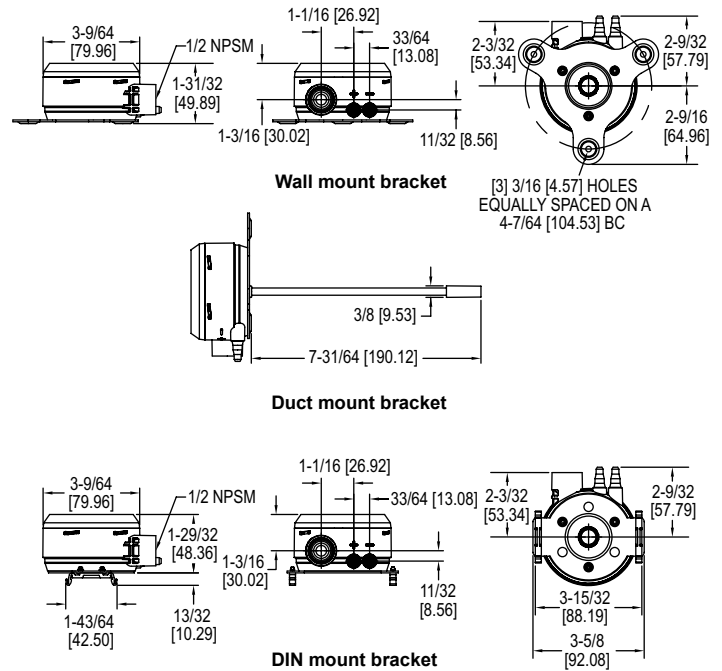


# MAGNESENSE® DIFFERENTIAL PRESSURE TRANSMITTER

Monitors Differential Pressure, Air Velocity, and Volumetric Flow



The Series MSX Magnesense® Differential Pressure Transmitter combines the stability and versatility of the original Series MS2 Magnesense® II transmitter for use in building control applications. The MSX simplifies the ordering process to deliver the desired configuration, which reduces product setup time. Pressure ranges are available in Pa, mm w.c., and in w.c. All pressure ranges can be configured in unidirectional or bidirectional modes, providing a total of 32 ranges. The MSX transmitter can provide a linear pressure output or a linear velocity output with the square root extraction from the transmitter. Additional parameters have been included to expand the square root capability for calculating flow. Dual voltage and milliamp output signals can be used to provide both control and equipment output signal verification.

**BENEFITS/FEATURES**

- Read LCD values easier with rotatable 180° display
- Quick and easy wiring via the optional toolless terminal block
- Add safety to variety of applications with UL94 V-0 and plenum ratings

**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 CHART						
Example	MSX	-W	1	3	-IN	-LCD
Series	MSX					Magnesense® differential pressure transmitter
Mounting		W U N				Wall mount Universal (wall or duct) mount DIN rail mount
Direction			1 2			Unidirectional Bidirectional
Range				0 1 2 3 4		.5 in w.c., 125 Pa, 12.5 mm w.c. 1 in w.c., 250 Pa, 25 mm w.c. 5 in w.c., 1250 Pa, 125 mm w.c. 28 in w.c., 7000 Pa, 700 mm w.c. 15 in w.c., 4000 Pa, 400 mm w.c.
Pressure Unit					IN PA MM	Inches water column Pascal Millimeters water column
Options						A481 Installer kit, includes 2 plastic static pressure tips and 7 ft (2.1m) of PVC tubing COM BACnet/Modbus® communications FC Factory calibration certificate FP Filtered pickup with barb GLD Liquid tight cable gland fitting LCD Liquid crystal display NIST NIST traceable calibration certificate STX Two (2) plastic static pressure tips TT Toolless terminal block WO LCD cover without LCD display

**SPECIFICATIONS**

**Service:** Air and non-combustible, compatible gases.  
**Wetted Materials:** Consult factory.  
**Accuracy:** ±1% FSO.  
**Stability:** ±1% FSO/year.  
**Temperature Limits:** -4 to 158°F (-20 to 70°C).  
**Pressure Limits:** Ranges 0 and 1: 3.6 psi max operation, 6 psi burst; Ranges 2, 3 and 4: 6 psi max operation, 6 psi burst.  
**Power Requirements:** 10-36 VDC (2-wire), 17-36 VDC or isolated 21.6-33 VAC (3-wire).  
**Output Signals:** 4-20 mA (2-wire); 0-10 V or 0-5 V selectable (3-wire).  
**Response Time:** Instantaneous (default) or 3 s (selectable).  
**Zero and Span Adjustments:** Digital push-button.

**Loop Resistance:** Current output: 0-1250 Ω max; Voltage output: min. load resistance 1 kΩ.  
**Current Consumption:** 21 mA max continuous.  
**Electrical Connections:** 4-wire removable European style terminal block for 16 to 26 AWG.  
**Electrical Entry:** 1/2" NPS thread.  
**Display (optional):** 4 digit LCD.  
**Process Connections:** 1/8", 3/16", 1/4", 5 mm, and 6 mm ID flexible tubing.  
**Enclosure Rating:** NEMA 4X (IP66), UL 2043 (Plenum), UL94 V-0.  
**Mounting Orientation:** Pressure sensor measurement unaffected by orientation.  
**Weight:** 8.0 oz (230 g).  
**Compliance:** CE.

**OPTIONS**

Range	in w.c.	Pa low	Pa high	mm w.c.
Range 0	0.1	25	60	2.5
	0.15	30	75	5
	0.25	40	100	10
	0.5*	50	125*	12*
Range 1	0.1	25	100	2.5
	0.25	40	150	5
	0.5	50	160	10
	1*	60	250*	25*
Range 2	1	250	600	25
	2	300	750	50
	3	400	1000	100
	5*	500	1250*	125*
Range 3	10	1000	3000	250
	15	1500	4000	350
	25	2000	5000	500
	28*	2500	7000*	700*
Range 4	1	250	1000	25
	5	300	2000	125
	10	400	3000	250
	15*	500	4000*	400*

\*Indicated values are the positive full-scale output values per range.  
**Note:** Ranges indicated in the table are the high end of the set range. All ranges have a low end pressure value of 0.

**ACCESSORIES**

Model	Description
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-MSX-LCD	Replacement display for the Series MSX