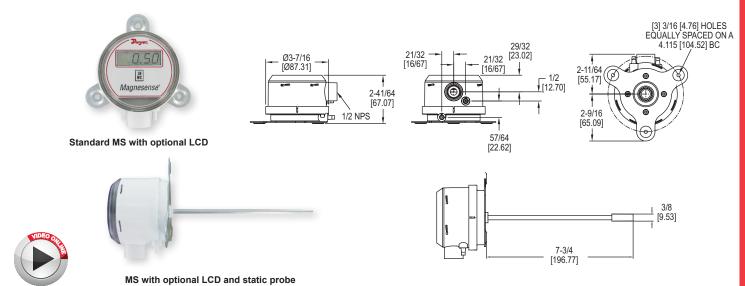


## MAGNESENSE® DIFFERENTIAL PRESSURE TRANSMITTER Monitors Pressure and Air Velocity





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

from 1 to 2. Example: MS-122

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.

| <b>SPECIF</b> | ICAT | IONS |
|---------------|------|------|
|---------------|------|------|

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 bidirectional 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: Adjustable 0.5 to 15 s time constant. Provides a 95% response time of 1.5 to 45 seconds.

Zero & 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). Agency Approvals: CE.

| MODEL CHART                                                    |         |                                                 |
|----------------------------------------------------------------|---------|-------------------------------------------------|
| Model                                                          | Output  | Selectable Ranges                               |
| MS-121*                                                        | 4-20 mA | 0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)   |
| 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-111*                                                        | 4-20 mA | 1 in, 2 in, 5 in w.c. (250, 500, 1250 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-331                                                         | 0-10 V  | 10 in w.c. (2 kPa)                              |
| MS-341                                                         | 0-10 V  | 15 in w.c. (3 kPa)                              |
| MS-351                                                         | 0-10 V  | 25 in w.c. (5 kPa)                              |
| MS-021                                                         | 4-20 mA | ±0.1 in, 0.25 in, 0.5 in w.c. (±25, 50, 100 Pa) |
| 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 |         |                                                 |

| ACCESSORIES |                                                                            |  |
|-------------|----------------------------------------------------------------------------|--|
| Model       | Description                                                                |  |
| 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" straight static pressure tip with flange                                |  |
| 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               |  |
| SCD-PS      | 100-240 VAC/VDC to 24 VDC Power supply                                     |  |

| OPTIONS              |                                        |  |
|----------------------|----------------------------------------|--|
| To order add suffix: | Description                            |  |
| -LCD                 | Units with display                     |  |
| Example: MS-121-LCD  |                                        |  |
| -NIST                | NIST traceable calibration certificate |  |
| Example: MS-021-NIST |                                        |  |
| -FC                  | Factory calibration certificate        |  |
| Example: MS-021-FC   |                                        |  |