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# Series MSX

## Magnesense® Differential Pressure Transmitter

- 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

### Description

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 to calculate flow. Dual voltage and milliamp output signals can be used to provide both control and equipment output signal verification.

### 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

### Specifications

**Service:** Air and non-combustible, compatible gases.

**Wetted Materials:** Consult factory.

**Accuracy:** ±1 % FSO.

**Stability:** ±1 % FSO/year.

**Temperature Limits:** -20 °C to 70 °C (-4 °F to 158 °F).

**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 VDC to 36 VDC (2-wire), 17 VDC to 36 VDC or isolated 21.6 VAC to 33 VAC (3-wire).

**Output Signals:** 4 mA to 20 mA (2-wire); 0 V to 10 V or 0 V to 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 Ω to1250 Ω max; Voltage output: min. load resistance 1 kΩ.

**Current Consumption:** 21 mA max continuous.

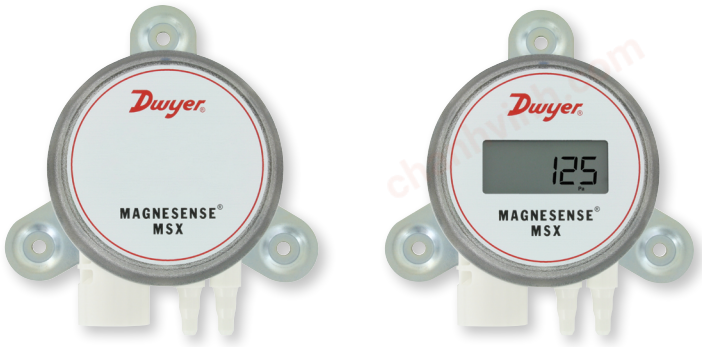
**Electrical Connections:** 4-wire removable European style terminal block for 16 AWG to 26 AWG.

**Electrical Entry:** 1/2 in NPS thread.

**Display (optional):** 4 digit LCD.

**Process Connections:** 1/8 in, 3/16 in, 1/4 in, 5 mm, and 6 mm ID flexible tubing.

**Enclosure Rating:** NEMA 4X (IP66); UL 2043 (Plenum); UL94 V-0.




**MSX with optional LCD**



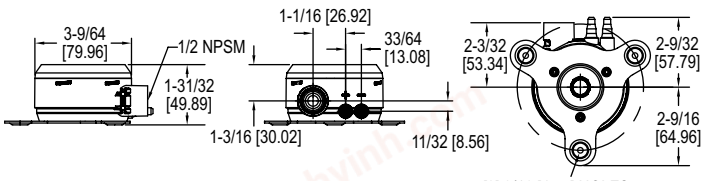

**MSX Square Housing with optional LCD**

**Mounting Orientation:** Pressure sensor measurement unaffected by orientation.

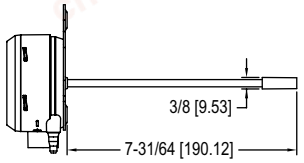
**Weight:** 230 g (8.0 oz).

**Compliance:** CE.

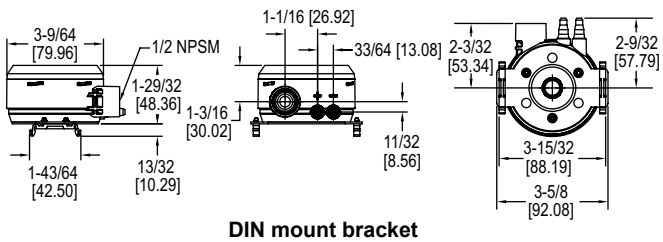
### Dimensions - Round Housing




**Wall mount bracket**




**Duct mount bracket**

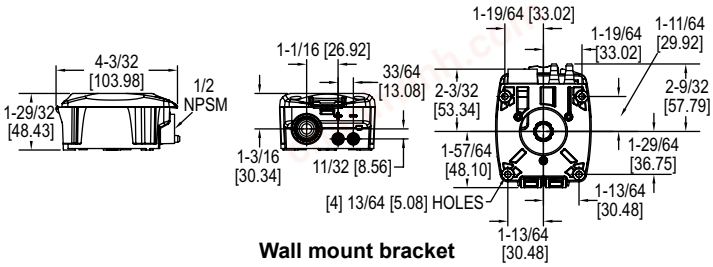



**DIN mount bracket**

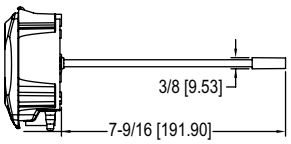
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## Dimensions - Square Housing

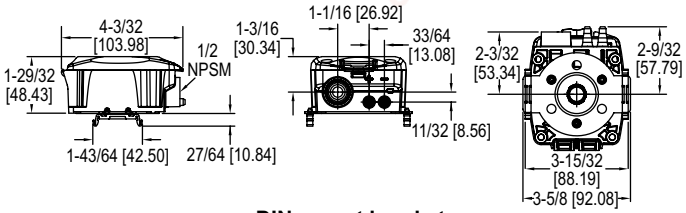
Dimensions are in inches and [mm] millimeters are in brackets.




**Wall mount bracket**




**Duct mount bracket**




**DIN mount bracket**

## How to Order

**MSX -W 1 3 -IN -LCD**

**SERIES**

**MSX:** Magnesense® differential pressure transmitter

**MOUNTING**

**-W:** Wall mount
**-U:** Universal (wall or duct) mount
**-N:** DIN rail mount
**-S:** Square Housing Wall mount
**-Y:** Square Housing Universal (wall or duct) mount
**-Z:** Square Housing DIN rail mount

**DIRECTION**

**1:** Unidirectional
**2:** Bidirectional

**RANGE**

**0:** .5 in w.c., 125 Pa, 12.5 mm w.c.
**1:** 1 in w.c., 250 Pa, 25 mm w.c.
**2:** 5 in w.c., 1250 Pa, 125 mm w.c.
**3:** 28 in w.c., 7000 Pa, 700 mm w.c.
**4:** 15 in w.c., 4000 Pa, 400 mm w.c.

**OPTIONS**

**-A481:** Installer kit
**-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

**PRESSURE UNIT**

**-IN:** Inches water column
**-PA:** Pascal
**-MM:** Millimeters water column

## Accessories

| Model Number | Description |
|---|---|
| A-155 | Cable gland with 12.7 mm (1/2 in) male NPT fitting |
| A-480 | Plastic static pressure tip |
| A-481 | Installer kit, includes 2 plastic static pressure tips and 2.1 m (7 ft) of PVC tubing |
| A-MSX-LCD | Replacement display for the Series MSX |
| A-MSX-ORING | Replacement O-ring for the Series MSX |



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