

IMPRESS

SENSORS & SYSTEMS

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Pressure - Temperature - Level - Distance - Control - Indication - Data logging

Depth and Level Pressure Transmitter

Miniature MTM 3000 Series



- Titanium with 5 year corrosion warranty
- Submersible, 0.39" diameter
- Fully isolated sensing element
- Accuracies of $\pm 0.1\%$, $\pm 0.25\%$ or $\pm 0.5\%$
- Ranges from 0-15, to 0-500 psi
- mV, 4-20mA, or 0-5 Vdc output

The **Miniature MTM 3000 Series** submersible transmitters are specifically designed for depth and level measurements of groundwater, wastewater and sea water where space is very limited. The housing diameter of 0.39 inches offers the user an ideal high performance level measurement in small diameter, i.e. 1/2" monitoring wells, stand pipes and bore holes. The titanium construction and integral polyurethane cable provide a reliable long term solution for these difficult-to-measure applications. Kevlar is used as a cable reinforcement to avoid any elongation, particularly when long lengths of cable are required for deep wells. Long term stability of typically $\pm 0.1\%$ per year also contributes toward a maintenance-free installation.

Impress also offers a range of 1" diameter dataloggers which can be supplied in-line or at the well head for continuous monitoring.

The **VersaLine VL3000 and VL4000** offer similar performance with 1" and 3/4" diameter housings respectively. The **VL2000** provides an open face construction avoiding clogging or sludge build up in wastewater and similar applications. Impress manufactures a wide range of other level transmitters including sanitary flush designs for use in water and wastewater management, food and beverage, pulp and paper, and pharmaceutical applications. Please refer to appropriate data sheets.

An **extensive range of accessories** is available including Sink Weights, Cable Hangers, and a unique method of avoiding water ingress through the breather tube for vented gauge transmitters. Also offered are Calibration Adaptors, Lightning Protection, and Cable Termination Boxes. Please see separate data sheet VLA 702 detailing these items.

Visit the website: www.impress-sensors.co.uk

STANDARD SPECIFICATIONS

Full Scale Ranges (Zero Based)

Any full scale range from 0-15 to 0-500 psig, and 0-15 psi to 0-500 psia, available in any engineering units, such as psi, Pa, in H₂O, Bar, etc.

Accuracy

±0.1% FS, ±0.25% FS, ±0.5% FS available. Includes non-linearity, hysteresis, repeatability and zero/span settings.
Note: ±0.1% not available with mV output

Overpressure

3 x range

Operating Temperature Range

25 to 125°F (-4 to +50° C)

Compensated Temperature Range

30 to 85° F (-2° to +30° C)

Temperature Effects (Compensated)

±1.5% total for 25 to 125° F, over 50 psi FS
 ±2% total for 25 to 125° F, up to 50 psi FS

Long Term Stability

0.1% FS per year for pressure ranges > 30 psi FS
 Prorated for ranges below 30 psi FS
 Under standard conditions

Electrical - 4 wire bridge

Supply Voltage: 1-15VDC
 Output Signal: 5mV/V typical, ratiometric with supply
Contact factory for exact output of each range
 Input Impedance: >10k ohm
 Bridge resistance: 3k ohm typical

Alternate Outputs, with In-Line Converter - Fig.1

4-20mA (2 wire) from 9-33 VDC supply
 0-5 or 0-10 VDC (3wire) from 15-30 VDC supply
Others available, consult factory

Intrinsically Safe Approval

Reference VL 3000/4000 - consult factory

Cable

Polyurethane molded vented with Kevlar, 4 conductors
Contact factory for FEP cable

Housing

316L Stainless Steel or Titanium
Note: 5-year corrosion warranty included for Titanium housing.

Weight

1 oz. (excluding cable)

Impress adopts a continuous development program which sometimes necessitates specification changes without notice.

ORDERING INFORMATION

Miniature MTM 3000 Series Depth & Level 0.39" diameter

When ordering please specify the following:

(1) Model number from table below

| MODEL - Construction | |
|--------------------------|--------------------------------------|
| 3 | Depth Cone 0.39" |
| Housing Material | |
| 1 | 316 Stainless Steel |
| 2 | Titanium - 5 year corrosion warranty |
| Electrical Connection | |
| 1 | Polyurethane molded cable |
| Electrical Configuration | |
| 0 | Millivolt uncompensated |
| 1 | Millivolt compensated |
| 2 | Volts, specify 0-5 or 0-10 (fig.1) |
| 3 | 4 to 20 mA (fig.1) |

(3) (2) (1) (3) Example Model Number

(2) Range, including engineering units

(3) Accuracy

(4) Cable Length. *If ordering converter (fig.1) two lengths must be specified. Sensor to converter/converter to termination.*

Example Ordering Format:

MTM 3213-50psig-0.1%-90/10'

OPTIONS

Impress offers a range of accessories and options for these and similar transmitters including:

- Dataloggers
- Rangeability
- Digital Outputs
- Lightning protection
- Alternate cables
- HART protocol
- Calibration Adaptors
- Sink Weights
- Cable Hangers

Please contact the factory for further information.

