

# DEPTH AND LEVEL PRESSURE TRANSMITTER MINIATURE MTM3000 SERIES

The Miniature MTM3000 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 ±0.1% per year also contributes toward a maintenance-free installation.

An in-line converter is available which is generally positioned above the water line but becomes integral with the transducer to provide either 4-20 mA, or 0-5 VDC output. PMC also offers a range of 1" diameter dataloggers which can be supplied in-line or at the well head for continuous monitoring.

An extensive range of accessories is available . See details on back page.

## Process Measure Control

### Features

- 0.39" diameter
- 0.1%/0.25% accuracy
- Piezoresistive sensor
- Ranges up to 500 psi
- mV, 4-20mA, 0-5 VDC
- €

### Applications

- ½" dia. Bore Holes
- Water Level
- Waste Water
- Oceanography
- Dams

## TECHNICAL SPECIFICATIONS

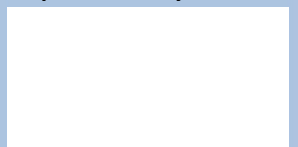
<b>Full Scale Ranges (Zero Based)</b>	Any range from 0-15 to 0-500 psig, & 0-15 psi to 0-500 psia Available in any engineering units, such as psi, Pa, in H2O, Bar, etc.
<b>Accuracy</b>	±0.1% FS or ±0.25% FS available. Includes non-linearity, hysteresis, repeatability . <i>Note: ±0.1% not generally available with mV output</i>
<b>Overpressure</b>	3 x range
<b>Operating Temperature Range</b>	25° to 125°F (-4° to +50°C)
<b>Compensated Temperature Range</b>	30° to 85°F (-2° to +30°C)
<b>Temperature Effects (Compensated)</b>	±1.5% total for 25° to 125° F, over 50 psi FS ±2% total for 25° to 125° F, up to 50 psi FS
<b>Long Term Stability</b>	0.1% FS per year for pressure ranges > 30 psi FS Prorated for ranges below 30 psi FS under standard conditions
<b>Electrical (4 wire bridge)</b>	Supply Voltage: 1-15VDC Output Signal: 5mV/V typical, ratiometric with supply Input Impedance: >10k ohm Bridge resistance: 3k ohm typical
<b>Electrical (4-20 mA and VDC) with In-Line Converter - Fig 1</b>	4-20 mA (2 wire) from 9-33 VDC supply 0-5 or 0-10 VDC (3wire) from 15-30 VDC supply
<b>Intrinsically Safe Approvals</b>	Reference VL 3000/4000 - consult factory
<b>Cable</b>	Polyurethane molded, vented with Kevlar, 6 conductors
<b>Housing</b>	Titanium standard with 5-year corrosion warranty
<b>Weight (excluding cable)</b>	1 oz. (excluding cable)

PMC Engineering adopts a continuous development program which sometimes necessitates specification changes without notice

### Contact

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Represented by:



Your depth and level specialists for Ground, Surface, Sea and Waste Water

## PMC Configurator

MTM x x x x

<b>Model Construction</b>	Depth Cone 0.39"	3
<b>Housing Material</b>	316L Stainless Steel- <i>contact factory</i>	1
	Titanium - 5 year corrosion warranty	2
<b>Electrical Connection</b>	Polyurethane molded cable	1
Cable length must be specified at the time of ordering. If ordering converter (fig.1) two lengths must be specified. Sensor to converter/converter to termination.		
<b>Electrical Configuration</b>	Millivolt uncompensated	0
	Millivolt compensated	1
	Volts, specify 0-5 or 0-10 (fig.1)	2
	4-20 mA (fig.1)	3

**Example Ordering Format: MTM3213 - 40psig - 0.1% - 90/10' cable**

## RELATED PRODUCTS

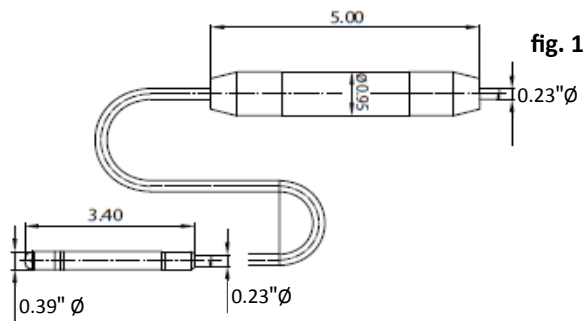
The VersaLine **VL3000** and **VL4000** offer similar performance with 1" and 3/4" diameter housings respectively. The **VL2000** provides an open face construction avoiding clogging or sludge build up in wastewater and similar applications. PMC manufactures a wide range of other level transmitters including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

## FOR ZERO MAINTENANCE



In order to reduce on site maintenance PMC has developed the MP 11 Moisture Protection Reference Volume. For vented gauge transmitters this provides a total isolation to the atmosphere by using a custom bladder while maintaining the high performance of the transmitter. This changes volume with Barometric pressure. Totally maintenance free. Please specify MP 11.

## MECHANICAL DETAILS



Dimensions in inches

## ELECTRICAL DETAILS

Configuration	+Ve Supply	0V Supply	+Ve Output	-Ve Output	Ground
Millivolt	White	Yellow	Brown	Green	N/C
4-20mA	White	Yellow			Green
0-5VDC/0-10VDC	White	Yellow	Brown	Yellow	Green

# Process Measure Control

## Sensors for

- Pressure
- Level
- Vacuum
- Humidity
- Temperature
- Force
- Position

## Accessories

PMC offers a range of Accessories and variants for depth and level transmitters. Reference sheet VLA502

- Termination Enclosure
- Cable Hanger
- Moisture Protection
- Calibration Adaptor
- Sink Weights
- Level Meters

## PMC is

- Engineering Driven
- Confidential
- Experienced
- Responsive
- Dynamic
- Friendly

**Your depth and level specialists for Ground, Surface, Sea and Waste Water**