



# SUBMERSIBLE LEVEL TRANSMITTER - 0.69"

## VERSALINE VL4313 SERIES

The **VL4313 Series** is a State-of-the-Art Submersible Level Transmitter that combines innovative sensing technology with proven manufacturing techniques. The current design is based on more than 30 years experience in providing reliable submersible pressure transmitters for water related applications.

The product has an anticipated reliability (MTBF) of more than 12 years. In support of this the design is rich in features many of which are shown on the reverse side of this datasheet.

PMC manufactures a comprehensive range of submersible level transmitters many of which are manufactured from Titanium which offers a five year corrosion warranty. The VersaLine **VL1000, VL3000, VL4000 series** and **MTM3000** offer similar performance while contained within 1", ¾" and 3/8" diameter housings respectively. The **VL2000** provides an open face construction avoiding clogging or sludge build up in wastewater and similar applications.

### TECHNICAL SPECIFICATIONS

|  |   |
|--|---|
| <b>Full Scale Ranges (Zero Based)</b>        | 0-5, 15, 30, 50, 100, 150, 200, 300, 500 psig<br>0-50, 100, 150, 200, 300, 500, 1000, 2000 & 3000 psig.<br><i>Other ranges and pressure units can be specified.</i> |
| <b>Accuracy</b>                              | ±0.25% FS (BSL)<br><i>Combined non-linearity, hysteresis &amp; repeatability</i>  |
| <b>Long Term Stability</b>                   | ±0.2% FS typical per annum  |
| <b>Overpressure (proof pressure)</b>         | 2 x full scale for all ranges   |
| <b>Pressure Containment</b>                  | 4 x for ranges up to 500 psi<br>2 x for higher ranges   |
| <b>Operating Temperature Range</b>           | -10° to +175°F (-20° to +80°C)  |
| <b>Compensated Temperature Range</b>         | 30° to 85°F (-2° to +30°C)  |
| <b>Temperature Effects (Compensated)</b>     | ±0.5% TEB for compensated range<br><i>Applies to ranges 15 psi and above.</i><br><i>Other ranges prorated to the standard range above.</i>                          |
| <b>Insulation Protection</b>                 | Hipot test to 500V between power lines and case   |
| <b>Electrical</b>                            | 2-wire, 4-20 mA, 10-35 VDC power<br><i>Design suitable for pulse power</i>  |
| <b>Intrinsically Safe Approvals</b>          | For FM/FMC Class I, II, and III Div. 1 Groups A-G<br><i>Please refer to VL2000, VL3000 and VL4000</i>   |
| <b>Cable – up to 5000ft in single length</b> | Polyurethane molded, vented with Kevlar, 2 conductors.<br>Single lengths up to 5000ft.<br><i>Contact factory for FEP cable.</i>                                     |
| <b>Housing</b>                               | Stainless Steel 316L<br><i>For Titanium housing, see VL4513</i>   |
| <b>Weight (excluding cable)</b>              | VL4313 - 7 oz. (excluding cable)  |

PMC-STs, Inc. adopts a continuous development program which sometimes necessitates specification changes without notice

## Process Measure Control

### Features

- 0.69" diameter
- ±0.25% accuracy
- 4-20mA, 10-35 VDC
- Molded cable
- Fully Potted
- CE

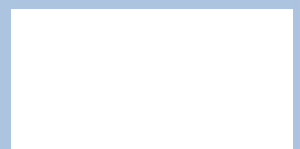
### Applications

- 1" dia. Bore Holes
- Water Level
- Waste Water
- Sewage Level
- Ground Water

### Contact

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Represented by:



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

## PMC Configurator

VL X X X X

|                                 |  |   |   |
|---------------------------------|--|---|---|
| <b>Model Construction</b>       | 0.69" Depth Cone   | 4 |   |
| <b>Housing Material</b>         | 316L Stainless Steel   |   | 3 |
| <b>Electrical Connection</b>    | Polyurethane molded, vented cable<br>Cable length must be specified at the time of ordering. |   | 1 |
| <b>Electrical Configuration</b> | 2 wire 4-20 mA   |   | 3 |

**Example Ordering Format: VL4313 - 300psig - 0.25% - 500' cable**

## VERSALINE VL4313 FEATURES

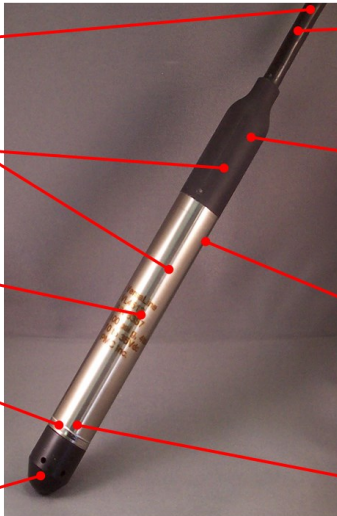
**Breather** connected directly to sensor reference to ensure ideal performance

**Fully-Potted** to provide secondary level of protection against water ingress

**Solid State Electronics** providing 4-20 mA, 2-wire, Loop Powered

**Laser-Welded**

**Anti-Shock Nose Cone** to avoid damage from water hammer



**Custom Vented Cable** with Kevlar® to avoid cable elongation

**Injection-Molded Cable Seal** eliminates water ingress

**0.69 inch diameter** for installation into small diameter bore holes. Note: The cable molding may be protected with a stainless steel housing. However the external dimensions will be unaffected.

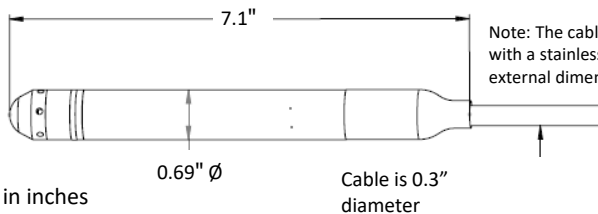
**Piezoresistive Technology** provides High Accuracy and good Long Term Stability

## 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 total isolation from the atmosphere by using a custom bladder, while maintaining the high performance of the transmitter. Totally maintenance free. Please specify MP 11.

## MECHANICAL DETAILS



## ELECTRICAL DETAILS

| Configuration | +V Supply | 0V Supply | Ground |
|---------------|-----------|-----------|--------|
| 4-20mA        | Red       | Black     | 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 separate data sheet.

- 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**