



## PRECISION DEPTH & LEVEL TRANSMITTER SDI-12 VERSALINE VL5004 SERIES

The **PMC VersaLine VL5004 Series** features the SDI-12 protocol. These submersible transmitters are specifically designed for depth and level measurements of groundwater, wastewater, and sea water. Typical applications are wells, dams, irrigation, sewage lift stations, rivers and oceanography. The stainless steel housing will satisfy many applications. Titanium is also ideal in brackish or sea water, or other chemical environments unsuitable for stainless steel.

The standard polyurethane vented cable is molded to the transmitter providing the highest integrity waterproof assembly well proven in thousands of installations worldwide. Kevlar is used to avoid any cable elongation. It should however be noted that when using SDI-12 protocol the cable length can be limited by the number of transmitters on the same line. For example the current SDI-12 specification states that “the bus is capable of having at least 10 sensors present each with 200 feet of cable on each sensor”.

We can also confirm that when a single transmitter is used cable lengths of up to 850 ft. are acceptable. FEP cable is available as an alternate for harsh environments. A feature of the **VL5004 Series** are full scale ranges as low as 20"WC.

### TECHNICAL SPECIFICATIONS

<b>Full Scale Ranges (Zero Based)</b>	0-7 to 0-355 psi <i>Other ranges and pressure units can be specified.</i>
<b>Accuracy</b>	Pressure: $<\pm 0.1\%$ FS <i>Combined non-linearity, hysteresis &amp; repeatability</i> Note: Accuracy includes zero & full scale settings Temperature: $<\pm 0.8^\circ\text{F}$ (Resolution: $<\pm 0.02^\circ\text{F}$ )
<b>Overpressure</b>	All ranges 3x FS
<b>Operating Temperature Range</b>	25° to +125°F (-5° to +50°C) - non freezing
<b>Compensated Temperature Range</b>	30° to 115°F (-2° to +45°C)
<b>Temperature Effects (Compensated)</b>	Total Thermal Error Band: $<\pm 0.1\%$ FS
<b>Electrical</b>	3-wire Supply: 8-30 VDC Current: $<500\mu\text{A}$ when idle, $<6\text{mA}$ when active Output: SDI-12 v1.3, <a href="http://www.sdi-12.org/">http://www.sdi-12.org/</a>
<b>Electrical safety</b>	Internal lightning protection. Reverse polarity protection.
<b>Cable (up to 850 ft.)</b>	Polyurethane molded, vented with Kevlar, 4 conductors - up to 850 ft., see <a href="http://www.sdi-12.org/">http://www.sdi-12.org/</a> for limitations <i>Contact factory for FEP cable, or longer lengths</i>
<b>Housing</b>	316L Stainless Steel or Titanium with 5 year corrosion warranty
<b>Weight (excluding cable)</b>	7 oz. (excluding cable )

## Process Measure Control

### Features

- SDI-12 v1.3 Protocol
- $<\pm 0.1\%$  Total accuracy
- 0-7 to 0-700 psi
- Level & Temp. output
- Lightning Protection
- CE

### Applications

- Small Bore Holes
- Water Level
- Waste Water
- Oceanography
- Ground Water

### Contact

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Represented by:



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

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

## PMC Configurator

VL x x x x

<b>Model Construction</b>	0.95" diameter Depth	5	
<b>Housing Material</b>	316L Stainless Steel (refer to PMC)	1	
	Titanium-5 year warranty	2	
<b>Electrical Connection</b>	Polyurethane molded cable	1	
	FEP cable	2	
	Conduit backend - Delrin	3	
	Conduit backend - Stainless Steel/Titanium	4	
Cable length must be specified at the time of ordering.			
<b>Electrical Configuration</b>	SDI-12	4	

**Example Ordering Format: VL5214 - 15psi - 50' cable**

## RELATED PRODUCTS

The VersaLine **VL4000** and **MTM3000** offer similar performance with 3/4" and 3/8" diameter housings respectively suitable for deeper or smaller well installations. 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.

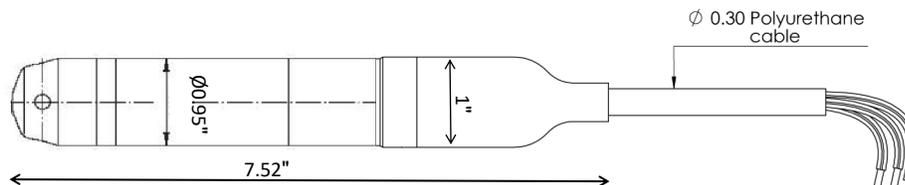
## FOR ZERO MAINTENANCE



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

+V Supply	-V Supply	SDI-12 Output	Case Ground	Shield
Red	Black	Yellow	Green	Drain

## 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**