



VL6000 Series

Dual Output Level & Temperature Transmitter

Data Sheet



Features

- Fully Submersible Ø0.95" (24mm)
- Dual 4-20 mA output (3 or 4 wire)
- 40" WC to > 350 psi
- 25 to 175°F
- Titanium Construction (*five year corrosion warranty*)
- Accuracy Pressure: $\leq \pm 0.1\%$ FS or $\leq \pm 0.25\%$ FS
- Accuracy for Temp: $\pm 0.5^\circ\text{F}$

Typical Applications

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



VL6000 Performance Specification

The VL6000 Series is part of a comprehensive range of transmitters specifically designed for long term monitoring of ground water, wastewater and tank level measurement. It provides a dual 4-20mA, 3 or 4 wire configuration for both level and temperature. Features such as Kevlar strengthened cable, titanium housing, and ballast weights broaden the installation opportunities.

Environmental	
<u>Pressure</u>	Any range 40" WC to 350 psi FS available, in any engineering units such as psi, Pa, inches H2O, bar. <i>Consult factory for higher ranges.</i> <i>Absolute or gauge types available.</i>
Ranges (zero based)	
Proof Pressure	FS up to 15 psi: 45 psi FS > 15 psi up to 360 psi: 3 x FS (max. 360 psi) <i>Consult factory for higher proof pressure</i>
Operating Temperature Range	25 to 175°F (process media) *Not freezable water compatible
Compensated Temperature Range	25 to 175°F
Accuracy for Pressure	$\leq \pm 0.1\%$ FS or $\leq \pm 0.25\%$ FS <i>Combined linearity, hysteresis, repeatability, zero and span set (per DIN 16086)</i>
Total Error Band (TEB)	$\leq \pm 0.30\%$ FS (-5... 50°) <i>(Includes linearity, hysteresis, repeatability, zero and span settings and temperature effects)</i> *Per DIN 16086
Response Time	<1ms (10 to 90% FS)
Long Term Stability	0.1% FS/yr for pressure ranges > 30 psi <i>Prorated for ranges below 30 psi under standard conditions</i>
<u>Temperature</u>	Temperature measuring range: 25 to 175°F (Standard) Minimum temperature setting span: 55°F <i>Consult factory for other temperature ranges</i>
Range	
Accuracy for Temperature	$\pm 0.5^\circ\text{F}$
Temperature Response Time	τ 0.50 - 60s, τ 0.63 - 75s, τ 0.90 - 160s (Time in Seconds the sensor needs to carry out 50, 63, & 90% changes)
Electrical (See details on back page)	Supply voltage: 9 - 30 VDC. Influence of supply voltage <0.05% FS Dual output signals for pressure & temp: 4 - 20mA, 3 or 4 wire Load Resistance: RL (max): (V supply - 9V)/0.02A RL (min): (Vsupply - 15V)/0.02A Influence of load resistance < 0.05% FS Insulation resistance: >50 megohms @ 500 VDC (@68°F)
Construction	Titanium (with five year corrosion warranty)
Cable	Molded Polyurethane, or FEP cable (Vented with Kevlar)
Weight (excluding cable)	6.5oz

*STS Sensors adopts a continuous development program which sometimes necessitates specification changes without notice



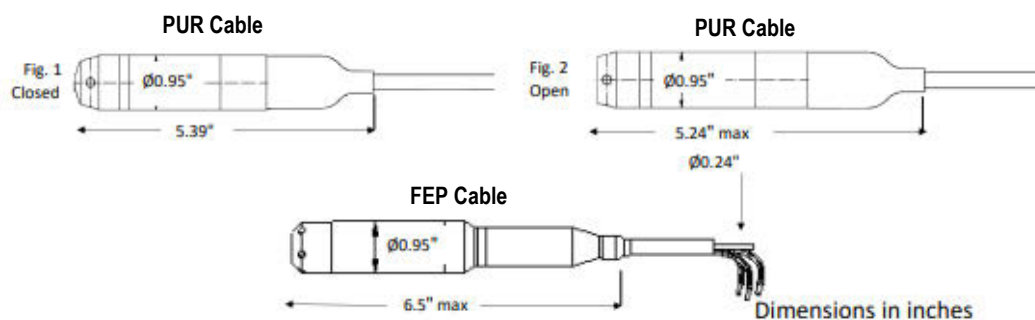
VL6000 Part Number Format:

VL62X5 - Pressure Range - 0.1% - Cable Length - 3 or 4 Wire

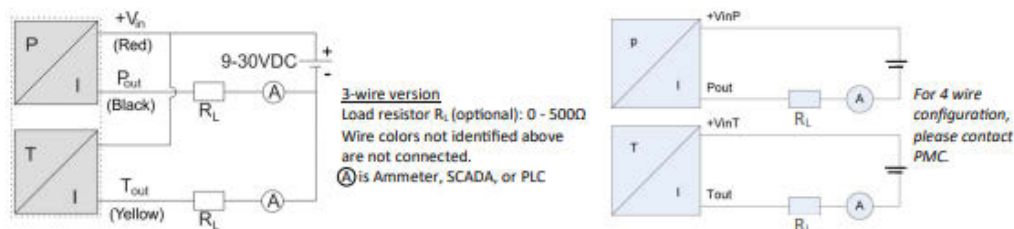
Example: VL6215 - 300psi - 0.1% - 700' cable - 3 wire

VL6000		6	x	x	x
Model Construction	.95" diameter (24mm)	6			
Housing Material	Titanium (5-year corrosion warranty)		2		
Electrical Connection	Polyurethane molded cable (specify length)			1	
*Cable length must be specified at the time of ordering.	FEP (Standard)			2	
	FEP (High Temp)			7	
Electrical Configuration	Dual 4-20 mA, 3 or 4 wire configuration				5

Mechanical Details



Electrical Details



Configuration	+Ve	Pressure Signal	Ground	Temp Signal	+Ve Temp
3 Wire	Red Pressure	Black Pressure	(Green)	Yellow Temp	
4 Wire	Red Pressure	Black Pressure	(Green)	Yellow Temp	White Temp



Related Products

STS offers a range of accessories and variants for depth and level transmitters.

TE-10 Dri-Box Termination Enclosure

The TE-10 provides a polycarbonate NEMA 4X rated termination enclosure for vented pressure transmitters. Separate gland nuts are incorporated for the electrical input and output and the breather vent provides barometric reference without ingress of water. A field replaceable desiccant module features a moisture status indicator visible through the clear cover.



MP-11 Moisture Protection Reference Volume

The MP-11 Moisture Protection Reference Volume reduces on-site maintenance. For vented gauge transmitters, the MP-11 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.

