

Tank Mate 306WVE Series Electronic Level Sensor



Tank Mate 306WVE Series Electronic Level sensor is designed for sanitary tank level gauging and pressure applications. It combines piezoresistive sensor technology with an internal temperature element to provide a more accurate, stable 4-20 mA dc loop-powered signal proportional to hydrostatic pressure. The sensor pressure and temperature are measured with a 24-bit A-D converter. Linearity and temperature effects are digitally corrected by an internal microprocessor connected to the sensor module.

The Electronics module converts the sensor module signal to a 4-20 mA output signal subject to the parameters selected by the user. Instrument free sensor setup and calibration is easily achieved by this smart sensor through use of the on-board LCD display and pushbuttons. Programmable damping function stabilizes output from pulsing due to excessive agitation providing smoother signal transition. Flush mount configurations meet requirements for clean-in-place installation.

SPECIFICATIONS

Measuring range and span

0-1 PSIG thru 0-14 PSIG

0-4 PSIG thru 0-70 PSIG

Calibrated Zero & Span are freely selectable to a specified value within the measuring range

Output 2-wire (2W), 4-20 mA (user selectable for linear, square root, inverted signal)

Temperature limits

Ambient: -22 to 176 F (-30 to 80 C)

Process: -22 to 257 F (-30 to 125 C)

Shipping and storage: -40 F to 176 F (-40 to 80 C)

Accuracy

0.1% of calibrated span typical

(includes nonlinearity, hysteresis and repeatability)

Long-term stability

0.1% / max. span / year

Temperature effect

Zero and span error:

0.15% of max Span

Power supply effect

< ± 0.01 of calibrated span per volt

Damping

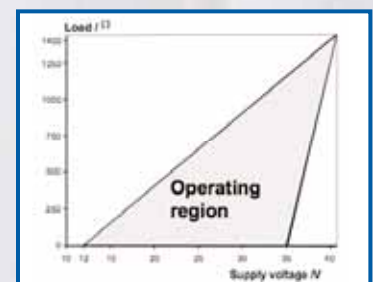
- Time constant is continuously adjustable 0.025 to 60 s.

Supply Voltage and

permissible load

4-20 mA output:

12-35 VDC



SPECIFICATIONS Continued

CONSTRUCTION Materials

Diaphragm : AISI316L

Housing ASI303/316; Seals, Nitrile and Viton®;

Filling Fluid: Silicone oil, food oil or inert oil

Tank Mounting Configuration

- Tank Mate - 41-163 Single Wall Shell
- 31-262JC Double Wall Shell
- 41-208 Extra Insulated Wall Shell

Alternate manufacturer's sensor tank shell configuration

- King Engineering Anderson
- Liquid Scale Cherry Burrell

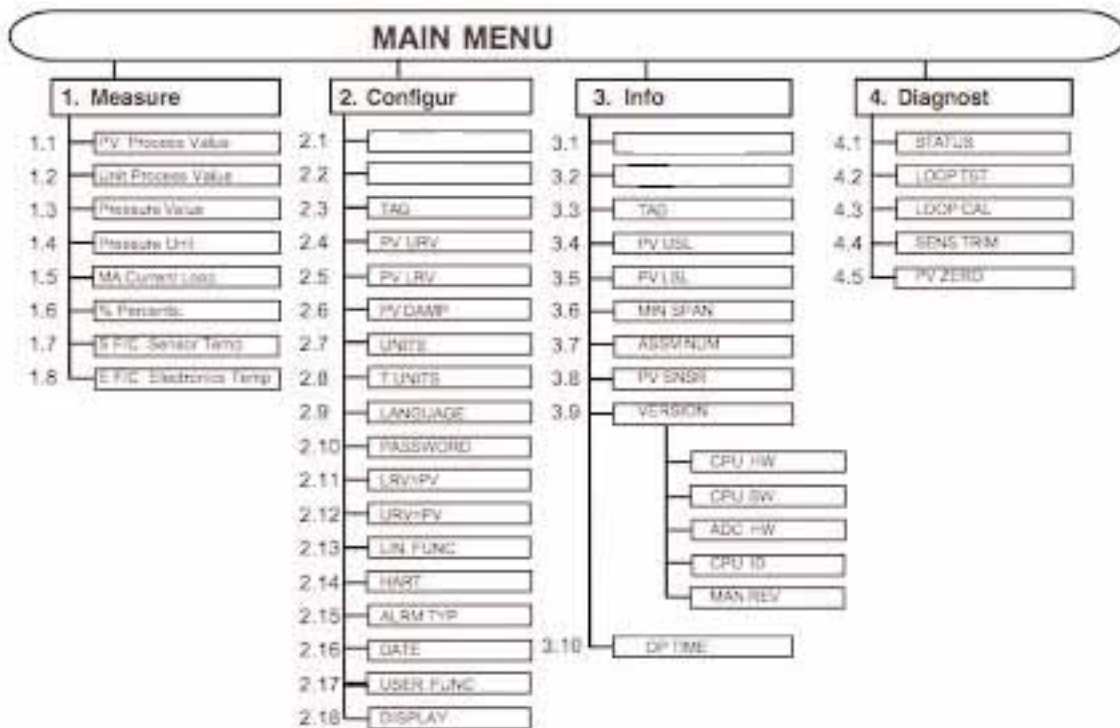
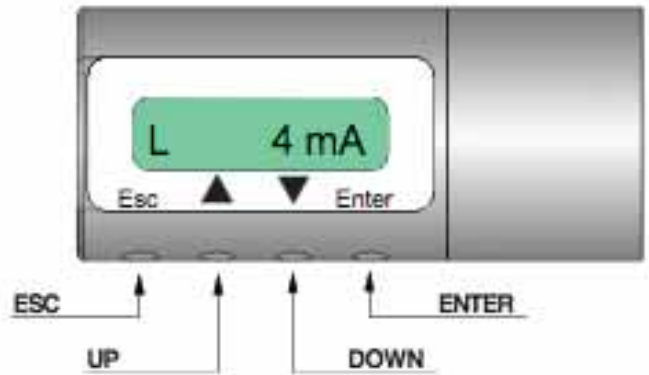
Additional Mounting Adapters available

- Continental / Wizard
- Rosemount Foxboro
- Tri-Clamp 1" , 1-1/2" , 2" , 2.5" , 3"

Consult factory for other sizes and configurations

These sensors are provided with their own displays and pushbuttons that allow you to define the transmitter's operating parameters and functions. No instruments are required to ZERO and SPAN the sensor. These parameters are programmed by setting the lower and upper range values on the LCD display. In addition, the user interface allows you to perform diagnostic routines and view valuable device status information. The 8-character LCD display allows the display of information in letters and numbers.

On-board programming and diagnostics can aid in set up and troubleshooting sensor.



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