

Measuring Pressure in Paint Systems



Paint spraying systems require air and liquid pressure measurement throughout the mixing, storing and spraying process, and each stage has unique needs. The pressure transmitters that control the air compressor must be simple, reliable and reasonably priced. Transmitters in the paint line need to be flush and smooth for easy cleaning and changeover. Also, the presence of solvents in some paints may require an Explosion Proof or Intrinsically Safe transmitter.

Viatran has designed a complete line of pressure measurement products for paint spraying systems. These products cover pressure measurements from 30" WC to 15,000 PSI and include Models 347, 350/351, 359 and the "25" Series Flow Thru Pressure Isolator.

Model 347 is a 4 to 20 mA transmitter that measures reservoir pressures or compressor output to 0.5% accuracy. The 347 can measure pressure to 15,000 PSI and is Viatran's most affordable transmitter.

When measuring tank levels, the Model 350 pressure transmitter provides a flush mount to the tank with a standard sanitary 2" tri-clamp fitting. It is hermetically sealed and can be immersed or washed down when cleaning. If external adjustments are required, Model 351 uses magnetically coupled controls, which maintain the safety of the unit, even during calibration. Models 350/351 employ no oil fill, ensuring no possibility of contamination. Both models are rated Suitable for Use in Hazardous Locations and Intrinsically Safe for Class 1, Div. 1 Locations by Factory Mutual (FM).

Another pressure transmitter designed for use in tank level, as well as inventory control, is Model 359. Using hydrostatic pressure to determine liquid level, the 359 ensures low range (to 30" WC) accuracy. Model 359 may be flush mounted, or manufactured to specifically fit various wells or flanges. Magnetically coupled external controls enhance the 359's FM Intrinsically Safe design.

Many paint applications require nonintrusive measurement in pipe systems. Viatran's "25" Series Pressure Isolator is a unique product that allows the user to measure pressure in a pipe without the need for "Tees". The Isolator has a 316 stainless steel lining. A small amount of fill fluid between the lining and the pipe wall hydraulically couples the pressure in the pipe to a dial gage or pressure transmitter. Isolators have smooth internal surfaces with no recesses allowing for easy system cleaning. Pipe sizes from 1/2" to 8" are available, as well as fill fluids (glycerin, safflower and vegetable oils) which will not contaminate paint.

Viatran researches application needs and designs products that specifically manage the job. For more information, contact Viatran today.

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