

Measuring Barometric Pressure

Meteorologists gather weather condition data from thousands of strategically located weather stations around the world. Each weather station contains specialized instruments that measure air temperature, wind speed, atmospheric pressure, and a multitude of other factors that paint an accurate picture of worldwide weather conditions. Remote or unmanned stations, known as Automated Weather Observation Systems (AWOS), are used in areas where extreme conditions are not favorable for human existence, such as the North Slope of Alaska or the North Pole. These stations use state-of-the-art technology to gather this important data and relay it to a central location. Local meteorologists are then able to use this data to create a weather forecast.

One of the primary factors meteorologists consider in forecasting the weather is atmospheric pressure. Dependable barometric pressure measurement is a crucial statistic for accurate forecasting. Weather stations use highly accurate electronic barometers with excellent thermal stability to measure atmospheric pressure. Because of extreme environmental conditions, such as arctic cold and tropical heat, these instruments must be able to withstand temperature extremes.

Viatran's Models 246 and 346 Electronic Barometers are ideal for weather station applications. They provide high static accuracy, to 0.01" Hg and excellent stability, to 0.072" Hg for a 100° F change in temperature. Our barometers will provide long lasting, maintenance-free use for many years — essential for use in AWOS. All wetted parts are constructed of 304 and 316 corrosion resistant stainless steel insuring high performance even in the worst environments.



The "46" Series measures pressures over the standard range of 25" HgA to 32" HgA. Model 246 provides a 0-5 VDC output signal, while the Model 346 offers a 4-20 mA signal. Both barometers have infinite resolution, an operating range of -40° F to 250° F, and readily accessible external zero and span adjustments. There are also numerous pressure ports and electrical connections available to suit specific application needs.

Viatran continues to develop pressure transmitters and accessories for customers with a wide variety of applications. For your barometric measurement needs, Viatran has the highly reliable and affordable solution with the "46" Series.

Call Viatran today for more information about our full line of pressure measurement products.

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