Windridge Sensors

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In-Line Continuous Flow Process Temperature Measurement

KEY FEATURES

Ultra-clean Design: The unique Keyhole hygienic sealing mechanism allows sensors to be inserted without creating pockets, crevices or process dead-legs that can trap product during processing.

Ease of Installation: The lack of any process pockets or dead-legs allows Keyhole sensors to the installed in any physical orientation without impacting hygienic performance. Only industry approved materials are used.

Leak-Free Operation: The Keyhole seal is designed to tighten as the process pressure increases, creating a leak-free seal up to 3,000 PSIg (200 Bar).

Sensitivity: The thermal isolation and low mass of the immersed sensing tip provide superior response times and accuracy.

PROBE STYLES

Center Reach

Equivalent to a traditional RTD, this probe style reaches the center of the pipe.

Low Obstruction

Provides accurate in-line temperature measurement with minimal obstruction of the product flow. Also measures at the edge of the flow, near the pipe wall

Small Bore

Suitable for use in process pipe IDs down to 0,550" (14mm). Ideal for use in pilot plant or lab-scale equipment where traditional RTDs and thermowells can introduce excessive flow obstruction or product damage.

Point Measurement

Constructed from an ultra-thin stainless steel tube, this probe type is able to measure at a specific radial location in the process flow.

Available with RTD or thermocouple elements.

Multi-Point

Equipped with multiple type-T thermocouples along its length, this probe is able to measure at several radial locations simultaneously to create a thermal profile and identify the critical hot and cold spots.

PROBE OPTIONS

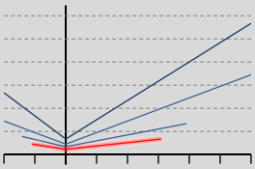
Transmitter

Replaces the standard in-head terminal block with a 4-20mA loop transmitter.

Dual Element

Adds a second element inside the probe to provide redundant or dual outputs.

High Precision



Replaces the standard Class A PT100 RTD element with higher tolerance 1/3 or 1/10 Class B elements.

Connectorized

Replaces the standard in-head terminal block with an external multi-pin screw-on wiring connection.

Custom

Custom probe designs and sizes can be produced to address specific measurement applications.

FITTINGS

Instrument Tee

Equivalent to a traditional RTD instrument tee. Available with a variety of coupling types or butt-weld ends for welding. Shown here with Tri-Clamp flanges.

Multi-Port Tee

Allows multiple Keyhole probes to be inserted at a single location for multiple measurements. Shown here with 3 ports equally spaced at 120° and Tri-Clamp flanges.

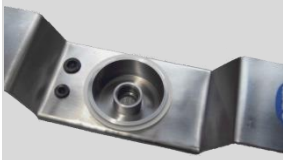
Flex-Fit

Ideal for quick retrofit to existing processes, the Flex-Fit pipe fitting clamps around a pipe drilled with a small access hole. Flex-Fit has the same sanitary performance as other Keyhole Fittings.

Custom

Keyhole fittings can be attached to almost any customer-supplied pipe section and in almost any configuration.

Calibration



Suitable for use with temperature-controlled oil baths, the Keyhole Temperature Calibration Cell replicates the installed operating conditions for accurate sensor calibration.

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US Patent: 7607364

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