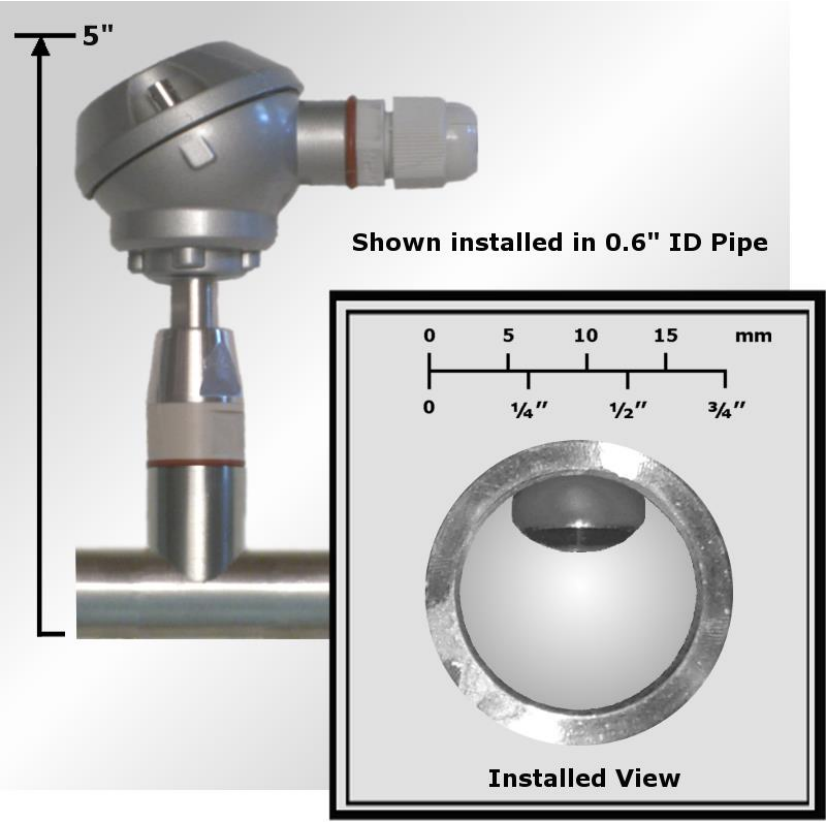
Ultra-Clean Small Bore Sanitary Temperature Sensor

In-Line Continuous Flow Process Temperature Measurement



- **Food, Beverage & BioPharma**
- **Fits in small-scale pilot plant process pipework**
- **Minimal product flow obstruction**
- **Ideal for High Viscosity and Particulate products**
- **Installs in-line without the need for an Elbow**
- **Operates up to 3000psig & 250°C**
- **CIP/SIP compatible**

US Patent: 7607364

The Mini Sanitary Sensor Solution from Windridge Sensors provides accurate temperature in small-scale thermal processing with minimal obstruction of the product flow.

This allows the user to verify that correct processing temperatures are being reached without impacting flow rates, operating pressures or damaging larger food particles.

The unique Keyhole insertion technology allows the Mini sensor to be installed in any location - including straight sections of pipework - without loss of measurement accuracy or restriction of process flow.

This is unlike conventional mini RTDs that require installation in a sanitary elbow or tee in order to provide deep enough immersion length to avoid stem conduction errors.

The Keyhole technology possesses a pressure compensating capability that allows it to operate leak-free up to 3000psig (200 bar).

Because the probe is inserted into the process flow without introducing any process voids or pockets, it also creates an ultra-clean environment for CIP/SIP procedures.

Windridge Sensors

Windridge Sensors, LLC P.O. Box 1355, Holly Springs, NC 27540, USA Tel: +1 (919) 272 8714

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KEY FEATURES

Low Flow Obstruction Measurement: The void-free Keyhole hygienic sealing technology and low profile of the probe tip create minimal disturbance to the product flow.

Edge-of-Flow Measurement: Many modern processing technologies can produce uneven temperature distribution across the process flow. The thermal isolation between the sensor and the pipe wall allows it to be positioned within 0.150" (3.5mm) of the wall, allowing measurements at the edge of the flow rather than just at the center.

Leak-Free Operation: The Keyhole seal is designed to tighten as the the process pressure increases, creating a leak-free seal up to 750psig (50 bar).

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

Cleanability: The Keyhole hygienic sealing technology allows probes to be inserted without creating pockets, crevices or process "dead legs" that trap product during processing.

Durability: Only industry approved materials are used.

SPECIFICATIONS

Sensor Types:	Class A or 1/3Class B PT100 RTD Type-T Thermocouple *(others available upon request)* Dual sensor installations available on request
RTD Connection Type:	3-wire or 4-wire
Accuracy:	±(0.6°C + 0.4%)
Response Time:	63% in <20s
Process Limits:	-50°C to 250°C 0 to 3,000 PSIg
Probe Tip Height:	0.16" / 4mm ± 0.02"/0.5mm
Probe Tip Diameter:	0.32" / 8mm
Installed Clearance:	5.25" (135mm)
Material:	316L SS wetted Surfaces & 3-A/FDA approved Silicone (VMQ) seal
Surface Finish:	$R_a$max = 32 µin on all SS wetted surfaces (*electropolishing available on request*)

For more information on this and other sensors, visit us at

www.WindridgeSensors.com

or contact us at Info@WindridgeSensors.com

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