

WAND TM Sensors Data Sheet

WAND Thickness Monitoring Sensors



The WAND Thickness Monitoring (TM) Sensors are designed to be permanently installed on the surface of pipework and vessels to provide reproducible thickness readings free of human error. Each sensor comes with an RFID for traceability and automated data management.

Inductosense offers the standard WAND TM Sensor, where the measurement point is in the centre of the sensor, or alternatively the offset TM sensor, where the measurement point is offset to the side for monitoring in places such as next to welds.

WAND TM Sensors are used in combination with WAND Handheld Data Collectors (HDCs) or WAND Remote Data Collectors (RDCs) to gather wall thickness measurements. The devices wirelessly activate the sensors to gather accurate wall thickness readings via an ultrasonic pulse.

Technical Specifications

The WAND TM Sensor comes in several configurations. Inductosense will suggest a design depending on the particular set of conditions, such as temperature, material wall thickness, diameter, and curvature of the material.

Product Code	TMS-B5R (V4)	TMS-S5R (V7)	TMS-B5R-H2
Dimensions	65mm OD, 1mm thick	65mm OD, 1mm thick	65mm OD, 1mm thick
Weight	6.5g	6.5g	6.5g
Operating Frequency	5MHz	5MHz	5MHz
Minimum Thickness*	5mm	3.5mm****	5mm
Maximum Thickness*	Up to 150mm	Up to 50mm	Up to 150mm
Minimum specimen diameter**	90mm	50mm	90mm
Transducer active area	5x12.5mm	4x5mm	5x12.5mm
Minimum operating temperature	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F
Maximum operating temperature	130°C / 266°F***	130°C / 266°F	180°C / 356°F
Sensor resolution	<0.05mm	<0.05mm	<0.05mm
Certifications	Ex ia IIC T4...T3 Ga (Ta = -40°C to +130°C/+150°C)	Ex ia IIC T4...T3 Ga (Ta = -40°C to +130°C/+150°C)	Ex ia IIC T4...T3 Ga (Ta = -40°C to +120°C/+180°C)



* Specifications based on flat plate measurements at room temperature may vary under operating conditions.

** For a straight pipe. The full sensor capability document is available on request.

*** Above 90°C / 194°F, the minimum thickness that can be characterised by the sensor will increase. Please contact us for more details.

**** A sensor with the following specifications is available on request:

Minimum thickness of 2mm / Maximum thickness of up to 20mm / Maximum operating temperature of up to 110°C / 230°F





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