

Ultrasonic High-Temperature Transducers

High Precision Measurement in Extreme Conditions

Checkline's high-temperature dual-element transducers are engineered for accurate wall thickness measurement on hot surfaces. Available in versions rated up to 335°C (635°F) or 482°C (900°F), these transducers ensure precise readings even in demanding environments.

They are offered in 1/4" and 1/2" sizes, with frequency options of 2.25 MHz and 5 MHz. Two connection types are available: a potted version with a fixed cable and a microdot version for use with a detachable cable (not included). These transducers are ideal for industrial inspections requiring reliable measurement performance at elevated temperatures.



Up to 482°C

Extreme temperature capability for demanding inspection environments.

2.25 / 5 MHz

Frequency options for different thickness and material requirements.

1/4" / 1/2"

Probe sizes for stable contact and application flexibility.

Potted / Microdot

Fixed-cable or detachable-cable connection options.

Key Features

High-Temperature Performance

- Designed to maintain stability and accuracy when measuring at elevated temperatures up to 482°C.

Versatile Applications

- Suitable for measuring metal and glass surfaces, with or without coatings, across industrial sectors including manufacturing, energy and process engineering.

Size and Frequency Options

- Available in 1/4" and 1/2" sizes with frequencies of 2.25 MHz or 5 MHz to meet diverse inspection needs.

High-Damping Variants

- Offered in Standard and High-Damping versions, optimised for Echo-Echo measurements through coatings.

Connection Types

- Choice of potted connector with fixed cable or microdot connector for use with detachable cables.

Key Benefits

Exceptional Temperature Capability

Performs accurate and consistent measurements in extreme environments up to 482°C, making it indispensable for high-temperature testing applications.

Enhanced Precision

Optimised frequency design enables detection of fine details and ensures reliable, repeatable results.

Durable Construction

Built for intensive use in harsh industrial environments, offering long service life and minimal maintenance.

Typical applications

Hot pipe and tank inspection | process equipment | power generation | industrial maintenance | coated and uncoated surfaces | metal and glass thickness measurements

High-Temperature Transducer Types

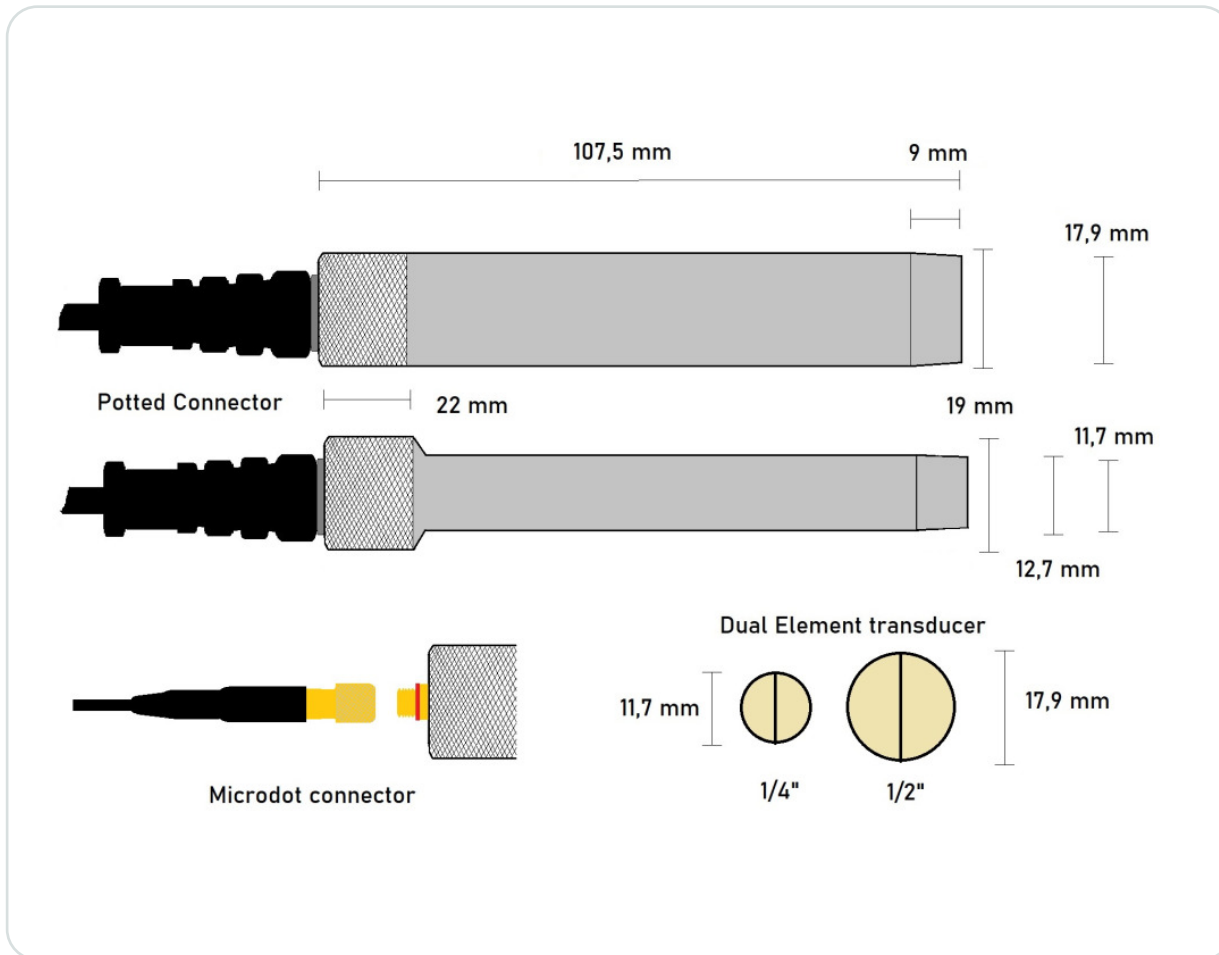
P/N	Probe diameter	Frequency	Probe Characteristic	Damping*	Connector type
T-042-1000	1/4"	2.25 MHz	High Temp, 335°C	S	Potted, top
T-242-1001	1/4"	2.25 MHz	High Temp, 335°C	S	Microdot, top
T-044-1000	1/2"	2.25 MHz	High Temp, 335°C	S	Potted, top
T-244-1001	1/2"	2.25 MHz	High Temp, 335°C	S	Microdot, top
T-042-2000	1/4"	5 MHz	High Temp, 335°C	S	Potted, top
T-042-2700	1/4"	5 MHz	High Temp, 335°C	HD	Potted, top
T-212-2001	1/4"	5 MHz	High Temp, 335°C	HD	Microdot, top
T-242-2001	1/4"	5 MHz	High Temp, 335°C	S	Microdot, top
T-044-2000	1/2"	5 MHz	High Temp, 335°C	S	Potted, top
T-214-2001	1/2"	5 MHz	High Temp, 482°C	S	Microdot, top
T-244-2001	1/2"	5 MHz	High Temp, 335°C	S	Microdot, top
T-044-2700	1/2"	5 MHz	High Temp, 335°C	HD	Potted, top

*** Types of Damping:**

S = Standard undamped transducer

HD = Highly damped transducer, used for Echo-Echo (through paint) measurements

Dimensions and Connector Options



The high-temperature dual-element transducers feature a robust design optimized for reliable ultrasonic measurement on hot surfaces. The housing length is 107.5 mm, with diameters of 11.7 mm and 17.9 mm depending on the model (1/4" or 1/2").

Connector options

Encapsulated connector

Fixed-cable design.

Microdot connector

Detachable cable interface for flexible operation and easy replacement.

Both versions feature dual-element transducers and are available in 1/4" (11.7 mm) and 1/2" (17.9 mm) sizes. These dimensions provide a stable contact area for accurate thickness measurements in high-temperature applications. All dimensions are shown in millimeters (mm).

Contact Information



Checkline Europe B.V.

Dennenweg 225 B
7545 WE Enschede
The Netherlands
Phone: +31 53 8200245
Website: www.checkline.eu
Email: sales@checkline.eu