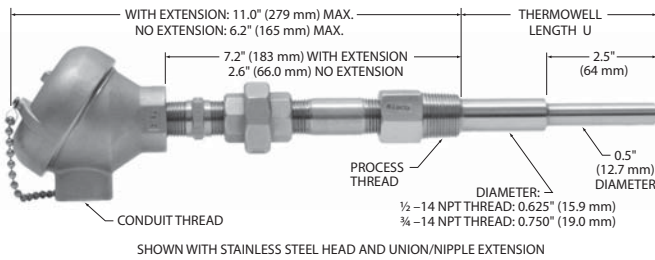


# 550°C RTDs with Thermowells



## Overview

Sense temperature in high-pressure fluids and gases. These assemblies are spring-loaded for positive probe contact against the bottom of the thermowell.

- 316 stainless steel thermowell
- RTD probe for use to 550°C (1022°F)
- Spring-loaded probe
- Cast iron, stainless steel, or aluminum connection head

*Note: For temperatures less than 260°C (500°F), assemblies using tip-sensitive sensors are recommended.*

## Specifications

### Temperature range:

Thermowell and sensor: -100 to 550°C (-148 to 1022°F).

### Connection head:

- Cast iron: 260°C (500°F) max.
- Aluminum: 316°C (600°F) max.
- Stainless steel: 121°C (250°F) max.

### Material:

- Probe: 316 stainless steel.
- Connection head: Cast iron, aluminum, or stainless steel.
- Thermowell: 316 stainless steel.
- Extension: Stainless steel.

**Pressure rating:** 7000 psi (483 bar) at 21°C, reducing to 2500 psi (172 bar) at 550°C.

**Standard U dimensions:** 2.5, 4.5, 6.0, 7.5, 8.0, 10.5, 13.5, 16.5, and 22.5".

**Insulation resistance:** 10 megohms min. at 100 VDC, leads to case.

**Connection:** Terminal block for wires to 14 AWG.

**Time constant:** 23 seconds typical in moving water.

## Sensing elements

Element		Code
Platinum (0.00391 TCR)	100 Ω ±0.1% at 0°C	PB
Platinum (0.00385 TCR) (Meets EN60751, Class B)	100 Ω ±0.1% at 0°C	PD

## Temperature Transmitters

Minco's Temptran™ RTD transmitters provide a 4 to 20 mA signal or HART® Protocol that can be sent over long distances with a simple 2-wire system. See Section 4 for complete temperature transmitter specifications.

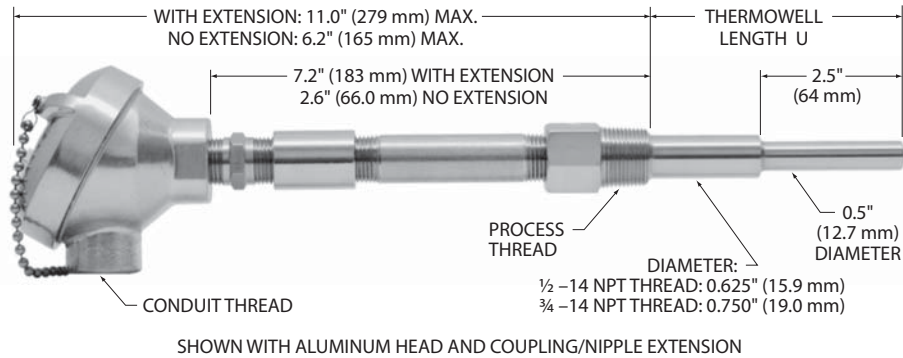
**Special high-accuracy calibration:** For high system accuracy, specify transmitters with matched calibration. Calibration data traceable to NIST will also be provided. Get more information on page 4-22.

## Specification and order options

AS5160	Assembly number AS5160
PB	Sensing element from table
105	Thermowell length U: Specify in 0.1" increments (Ex: 105 = 10.5 inches)
Z	Leads per sensing element: Y = 2 leads Z = 3 leads X = 4 leads (PD elements only)
2	Conduit thread: 1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
C	Connection head: C = Cast iron A = Aluminum S = Stainless steel
1	Thermowell process thread: 1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
U	Extension option: P = Coupling/nipple extension N = No extension U = Union/Nipple extension
To order sensor assembly, stop here.	
To order with transmitters add:	
508	Temptran™ transmitter model: 211 = TT211: Fixed Range (2-lead RTDs) 508 = TT508: Programmable (2 & 3-lead RTDs) 511 = TT511: HART® Programmable (2, 3, & 4-lead RTDs)
A	Temperature range codes starting on page 4-20 or at <a href="http://www.minco.com">www.minco.com</a>
1	Calibration: 1 = Nominal calibration 2 = Match calibrated, 0.75% total system accuracy. For other calibration options, contact Minco
AS5160PB105Z2C1U508A1 = Sample part number	

▼ = STANDARD OPTIONS  
Specifications subject to change

# 550°C Thermocouples with Thermowells



## Overview

Sense temperature in high-pressure fluids and gases. These assemblies are spring-loaded for positive probe contact against the bottom of the thermowell.

*Note: For temperatures less than 260°C (500°F), assemblies using tip-sensitive sensors are recommended.*

- 316 stainless steel thermowell
- Thermocouple probe for use to 550°C (1022°F)
- Spring-loaded probe
- Cast iron, aluminum or stainless steel connection head

## Specifications

### Temperature range:

Thermowell and sensor: -100 to 550°C (-148 to 1022°F).

Connection head:

Cast iron: 260°C (500°F) max.

Aluminum: 316°C (600°F) max.

Stainless steel: 121°C (250°F) max.

### Material:

Probe: 316 stainless steel.

Connection head: Cast iron, aluminum, or stainless steel.

Thermowell: 316 stainless steel.

Extension: Stainless steel.

**Pressure rating:** 7000 psi (483 bar) at 21°C, reducing to 2500 psi (172 bar) at 550°C.

### Standard U dimensions:

2.5, 4.5, 6.0, 7.5, 8.0, 10.5, 13.5, 16.5, and 22.5".

**Insulation resistance:** 10 megohms min. at 100 VDC, leads to case. Ungrounded junctions only.

**Connection:** Terminal block for wires to 14 AWG.

**Time constant:** 60 seconds typical in moving water.

## Temperature Transmitters

Minco's Tempran™ thermocouple transmitters provide a 4 to 20 mA signal or HART® Protocol that can be sent over long distances with a simple 2-wire system. See Section 4 for complete temperature transmitter specifications.

## Specification and order options

AS5165	Assembly number: AS5165
K	Junction type: E = Chromel-Constantan J = Iron-Constantan K = Chromel-Alumel
U	Junction Grounding: G = Grounded U = Ungrounded
135	Thermowell length U: Specify in 0.1" increments (Ex: 135 = 13.5 inches)
P	
1	Conduit thread: 1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
C	Connection head: C = Cast iron A = Aluminum S = Stainless steel
1	Thermowell process thread: 1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
U	Extension option: P = Coupling/nipple extension N = No extension U = Union/Nipple extension
To order sensor assembly, stop here. To order with transmitter, add:	
509	Tempran™ transmitter model: 205 = TT205: Fixed Range, Miniature 509 = TT509: Programmable, Hockey Puck 511 = TT511: HART® Programmable, Hockey Puck
A	Temperature range codes starting on page 4-20 or at <a href="http://www.minco.com">www.minco.com</a>
AS5165KU135P1C1U509A = Sample part number	

▼ = STANDARD OPTIONS  
Specifications subject to change