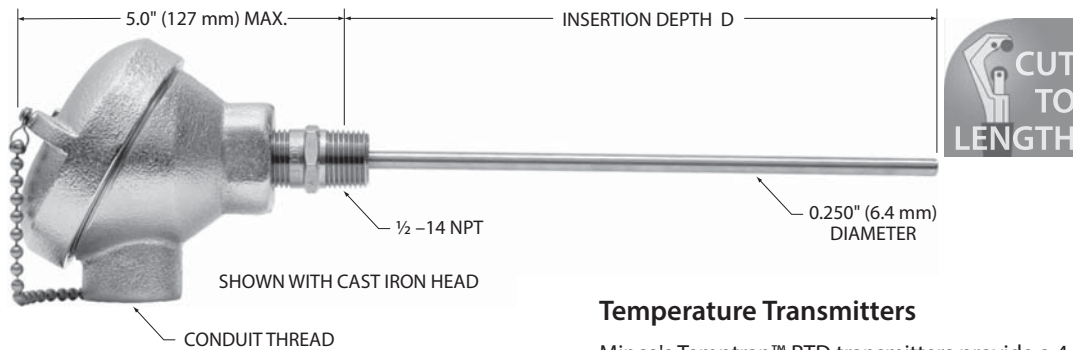


# Tip-sensitive Direct Immersion RTDs



## Overview

Mount sensors directly in fluid flow for fast response. Probes are rated to 100 psi (6.9 bar). For use in non-corrosive fluids only.

- RTD probe for use to 260°C (500°F)
- Adjustable fluid seal fitting
- Cast iron, stainless steel, or aluminum connection head

## Specifications

**Temperature range:** -50 to 260°C (-58 to 500°F).

### Material:

Probe: Stainless steel with copper alloy tip.  
 Fitting: Stainless steel, silicone rubber O-ring.  
 Connection head: Cast iron, aluminum, or stainless steel.

**Pressure rating:** 100 psi (6.9 bar).

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

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

**Time constant:** Typical value in moving water:  
 Single element: 2.0 seconds.  
 Dual element: 5.0 seconds.

## Sensing elements

Element		Code
Platinum (0.00392 TCR)	100 Ω ±0.5% at 0°C	PA
Platinum (0.00385 TCR) (Meets EN60751, Class B)	100 Ω ±0.1% at 0°C	▼PD
Platinum (0.00385 TCR)	100 Ω ±0.5% at 0°C	PE
Copper (0.00427 TCR)	10 Ω ±0.2% at 25°C	CA
(dual)	10 Ω ±0.5% at 25°C	CC
Nickel (0.00672 TCR)	120 Ω ±0.5% at 0°C	NA

## Temperature Transmitters

Minco's Tempran™ 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.

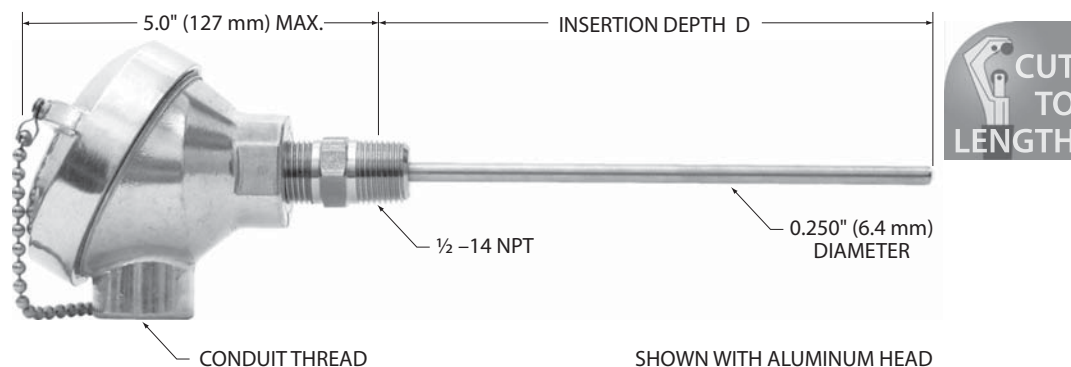
**Special high-accuracy calibration:** For high system accuracy, specify transmitters with matched calibration. Calibration data traceable to NIST will also be provided. Get more information on page 4-22.

## Specification and order options

AS5200	Assembly number ▼AS5200: Single element ▼AS5201: Dual element
PD	Sensing element from table
100	Insertion depth D: Specify in 0.1" increments (Ex: 100 = 10.0 inches) ▼:15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 140, 160, 180, 200, 240, 300, 360
Z	Leads per sensing element: Y = 2 leads ▼Z = 3 leads (required for CA and CC elements) X = 4 leads (PD elements only)
1	Conduit thread: ▼1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
A	Connection head: C = Cast iron ▼A = Aluminum S = Stainless steel
To order sensor assembly, stop here. To order with transmitters (single platinum element only) add:	
508	Tempran™ 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
AS5200PD100Z1A508A1 = Sample part number	

▼ = STANDARD OPTIONS  
 Specifications subject to change

# Tip-sensitive Direct Immersion Thermocouples



## Overview

Mount sensors directly in fluid flow for fast response. Probes are rated to 100 psi (6.9 bar). For use in non-corrosive fluids only.

- Thermocouple for use to 260°C (500°F)
- Adjustable fluid seal fitting
- Cast iron, stainless steel, or aluminum connection head

## Specifications

**Temperature range:** -50 to 260°C (-58 to 500°F).

### Material:

Probe: Stainless steel with copper alloy tip.  
 Fitting: Stainless steel, silicone rubber O-ring.  
 Connection head: Cast iron, aluminum, or stainless steel.

**Pressure rating:** 100 psi (6.9 bar).

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

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

**Time constant:** Typical value in moving water:

Grounded junction: 1.5 seconds.  
 Ungrounded junction: 7 seconds.

## Temperature Transmitters

Minco's Temptran™ 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

AS5205	<b>Assembly number</b> AS5205: Single junction AS5206: Dual junction
E	<b>Junction type:</b> E = Chromel-Constantan J = Iron-Constantan K = Chromel-Alumel T = Copper-Constantan
U	<b>Junction grounding:</b> G = Grounded U = Ungrounded
215	<b>Insertion depth D:</b> Specify in 0.1" increments (Ex: 215 = 21.5 inches)
P	
1	<b>Conduit thread:</b> 1 = 1/2 - 14 NPT 2 = 3/4 - 14 NPT
C	<b>Connection head:</b> C = Cast iron A = Aluminum S = Stainless steel
<b>To order sensor assembly, stop here.</b>	
<b>To order with transmitter, add:</b>	
509	<b>Temptran™ transmitter model:</b> 205 = TT205: Fixed Range, Miniature 509 = TT509: Programmable, Hockey Puck 511 = TT511: HART® Programmable, Hockey Puck
A	<b>Temperature range codes starting on page 4-20 or at <a href="http://www.minco.com">www.minco.com</a></b>
AS5205EU215P1C509A = Sample part number	

▼ = **STANDARD OPTIONS**  
 Specifications subject to change