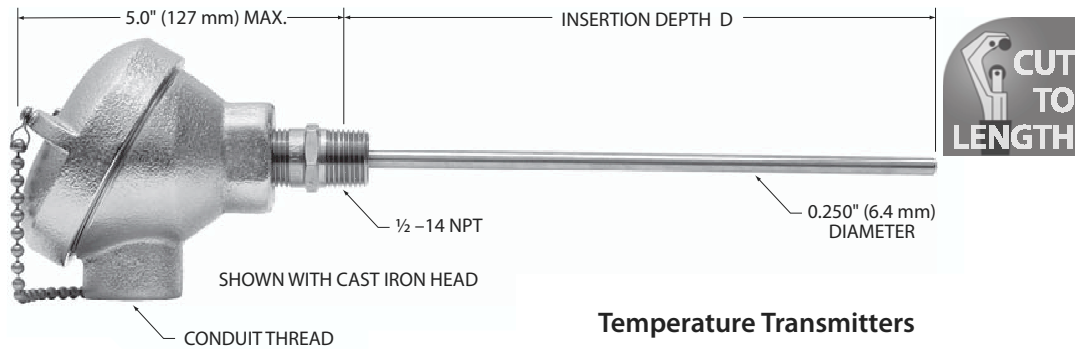


# Tip-sensitive Direct Immersion RTDs



## 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)<br>(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 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 5 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 5-22.

## Specification and order options

|                                                                                                        |                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AS5200                                                                                                 | Assembly number<br>AS5200: Single element<br>AS5201: Dual element                                                                                                                                                            |
| PD                                                                                                     | Sensing element from table                                                                                                                                                                                                   |
| 100                                                                                                    | Insertion depth D:<br>Specify in 0.1" increments (Ex: 100 = 10.0 inches)                                                                                                                                                     |
| Z                                                                                                      | Leads per sensing element:<br>Y = 2 leads<br>Z = 3 leads (required for CA and CC elements)<br>X = 4 leads (PD elements only)                                                                                                 |
| 2                                                                                                      | Conduit thread:<br>1 = 1/2 - 14 NPT<br>2 = 3/4 - 14 NPT                                                                                                                                                                      |
| C                                                                                                      | Connection head:<br>C = Cast iron<br>A = Aluminum<br>S = Stainless steel                                                                                                                                                     |
| To order sensor assembly, stop here.<br>To order with transmitters (single platinum element only) add: |                                                                                                                                                                                                                              |
| 211                                                                                                    | Temptran™ transmitter model:<br>211 = TT211: Fixed Range (2-lead RTDs)<br>176 = TT176: Fixed Range (3-lead RTDs)<br>520 = TT520: Programmable (2, 3, & 4-lead RTDs)<br>521 = TT521: HART® Programmable (2, 3, & 4-lead RTDs) |
| A                                                                                                      | Temperature range codes starting on page 5-20<br>or at <a href="http://www.minco.com/rangecode/">www.minco.com/rangecode/</a>                                                                                                |
| 1                                                                                                      | Calibration:<br>1 = Nominal calibration<br>2 = Match calibrated, 0.75% total system accuracy.<br>For other calibration options, contact Minco                                                                                |
| AS5200PD100Z2C211A1 = Sample part number                                                               |                                                                                                                                                                                                                              |

Specify and order products at:  
[www.minco.com/sensors\\_config](http://www.minco.com/sensors_config)

Specifications subject to change