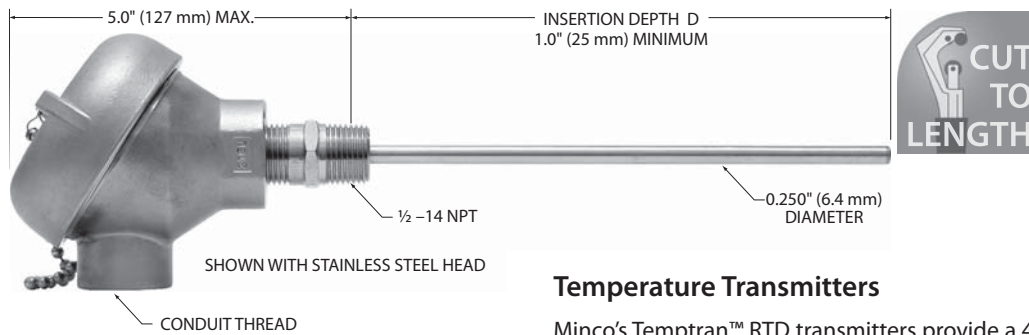


Tip-sensitive Spring-loaded RTDs



Overview

Fast and accurate readings from bearings, blocks, and other solids. Minco's spring-loaded holder ensures solid contact in drilled holes and has a built-in oil seal. The sensing probe features a copper alloy tip for quick response to temperature changes.

- Tip-sensitive RTD probe for use to 260°C (500°F)
- Spring-loaded holder with fluid seal
- 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.

Holder: Stainless steel with Viton O-ring.

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

Pressure rating: 50 psi (3.4 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: 1.5 seconds.

Dual element: 3.0 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 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.

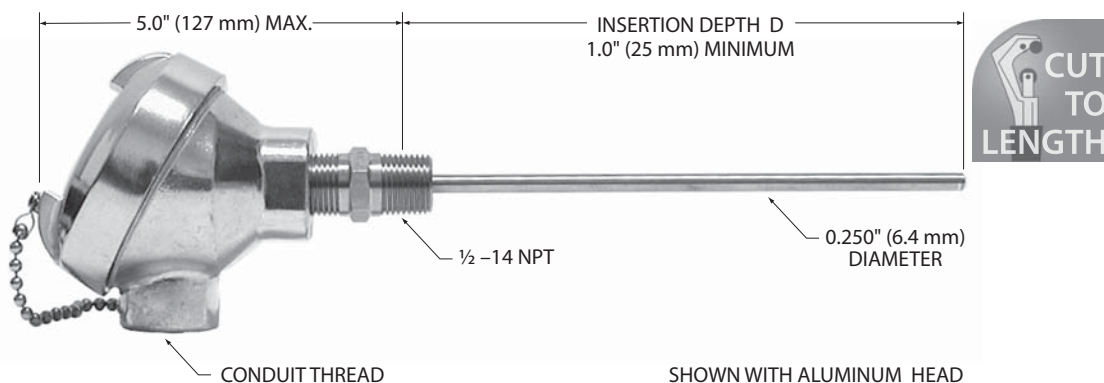
Specification and order options

AS5004	Assembly number AS5004: Single element RTD AS5005: Dual element RTD
PA	Sensing element from table
67	Insertion depth D: Specify in 0.1" increments (Ex: 67 = 6.7 inches)
Y	Leads per sensing element: Y = 2 leads Z = 3 leads (required for CA and CC elements) 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
To order sensor assembly, stop here. To order with transmitters (single platinum element only) add:	
211	Temptran™ transmitter model: 211 = TT211: Fixed Range (2-lead RTDs) 176 = TT176: Fixed Range (3-lead RTDs) 520 = TT520: Programmable (2, 3, & 4-lead RTDs) 521 = TT521: HART® Programmable (2, 3, & 4-lead RTDs)
A	Temperature range codes starting on page 5-20 or at www.minco.com/rangecode/
1	Calibration: 1 = Nominal calibration 2 = Match calibrated, 0.75% total system accuracy. For other calibration options, contact Minco
AS5004PA67Y2C211A1 = Sample part number	

Specify and order products at:
www.minco.com/sensors_config

Specifications subject to change

Tip-sensitive Spring-loaded Thermocouples



Overview

Fast and accurate readings from bearings, blocks, and other solids. Minco's spring-loaded holder ensures solid contact in drilled holes and has a built-in oil seal. The sensing probe features a copper alloy tip for quick response to temperature changes.

- Tip-sensitive Thermocouple for use to 260°C (500°F)
- Spring-loaded holder with fluid seal
- 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.
 Holder: Stainless steel with Viton O-ring.
 Connection head: Cast iron, aluminum, or stainless steel.

Pressure rating: 50 psi (3.4 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 5 for complete temperature transmitter specifications.

Specification and order options

AS5192	Assembly number AS5191: Single junction AS5192: Dual junction
E	Junction type: E = Chromel-Constantan J = Iron-Constantan K = Chromel-Alumel T = Copper-Constantan
U	Junction grounding: G = Grounded U = Ungrounded
133	Insertion depth D: Specify in 0.1" increments (Ex: 133 = 13.3 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
To order sensor assembly, stop here.	
To order with transmitter, add:	
190	Temptran™ transmitter model: 190 = TT190: Fixed Range, Hockey Puck 205 = TT205: Fixed Range, Miniature 520 = TT520: Programmable, Hockey Puck 521 = TT521: HART® Programmable, Hockey Puck
A	Temperature range codes starting on page 5-20 or at www.minco.com/rangecode/
AS5192EU133P1C190A = Sample part number	

Specify and order products at:
www.minco.com/sensors_config

Specifications subject to change