

**Temp-Pro Inc is a leader in the industry, supplying temperature sensor requirements for the most demanding industrial applications.**

Temp-Pro's embedment sensors are designed for use in the Rotating Equipment and Turbomachinery industries. Our embedment sensors provide critical temperature indication of bearing conditions, thus allowing machine shutdown and maintenance before catastrophic failures.

Temp-Pro's Miniature Bearing Temperature Sensors provide a reliable, simple and cost-effective method to monitor bearing temperatures.

**Embedment RTDs and Thermocouples**  
Maximum Number of Conductors and Wire Gauge

| SENSOR TYPE  | Case Style A     |                  | Case Style B     |                  | Case Style C     |      | Case Style D     |      | Case Style E     |                  |
|--|------------------|------------------|------------------|------------------|------------------|------|------------------|------|------------------|------------------|
|  | Single           | Dual             | Single           | Dual             | Single           | Dual | Single           | Dual | Single           | Dual             |
| Platinum, 100 Ω ± 0.12% at 0°C (Meets EN60751, Class B) <sup>1</sup> | 3 Wire<br>24 AWG | 6 Wire<br>24 AWG | 3 Wire<br>24 AWG | 6 Wire<br>24 AWG | 3 Wire<br>26 AWG | NA   | 3 Wire<br>30 AWG | NA   | 3 Wire<br>24 AWG | 6 Wire<br>24 AWG |
| Thermocouple (E, J, K, T)  | 2 Wire<br>24 AWG | 4 Wire<br>24 AWG | 2 Wire<br>24 AWG | 4 Wire<br>24 AWG | 2 Wire<br>26 AWG | NA   | 2 Wire<br>28 AWG | NA   | 2 Wire<br>24 AWG | 4 Wire<br>24 AWG |

<sup>1</sup>α = 0.00392 °C - Contact Factory

**Bearing (Embedded) Thermocouples & Pt100 Sensors**

Standard assemblies are easy to install in drilled holes for general temperature sensing applications, whereas the spring loaded 'top hat' style assemblies, are inserted into a milled hole with a retaining clip to compress the spring and retain the sensor against the surface being monitored.

**Specifications**

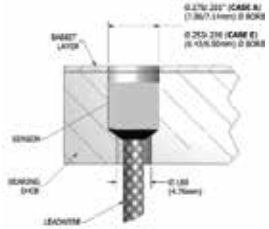
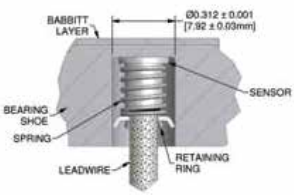
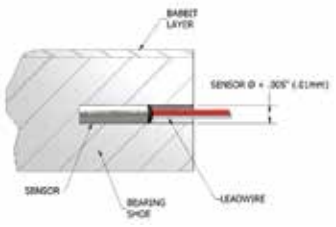
**Temperature Range:** -50 to 260°C (-58 to 500°F).

**Case Materials:** 316 SS; Copper; Nickel Plated Copper; Tin Plated Copper, Brass.

**Lead Wires:** Stranded silver plated copper conductors with PTFE insulation and optional stainless steel overbraid (one sleeve covers all leads).

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200 Industrial Drive • Northampton, MA 01060

| Case Style       | Installation Instructions   | Dimensions   |
|------------------|---|--|
| <b>A &amp; E</b> | Install sensor Style A just below the babbitt layer, then puddle the babbitt metal over the sensor tip and smooth. Style E is bonded with epoxy near the babbitt face for best temperature measurement reading.   |                 |
| <b>B</b>         | This sensor is designed with a spring and retaining ring allowing spring loading. Slide the spring and ring over the leads, insert the sensor tip into a milled hole, and push down on the retaining ring to compress the spring and secure the sensor. |                 |
| <b>C &amp; D</b> | Bond with epoxy inside the small bearing shoes. Locate near the babbitt face for best temperature measurement reading.  |  |

| Part Number                         | Description                              | Illustration  |
|-------------------------------------|--|---|
| <b>67P-0096</b><br><b>67P-01084</b> | Spring Length 0.50<br>Spring Length 1.25 |  |
| <b>67P-0097</b>                     | Retaining Washer                         |  |
| <b>67P-01085</b>                    | Retaining Ring                           |  |

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## Order Chart

|      | Sensor Type | Single or Dual | Case Style | Case Material | Junction   | Options                                  | Header Pass Through<br>(Leave blank if not req'd) | Header Pass Through<br>Location "U" |
|------|-------------|----------------|------------|---------------|------------|--|---|-------------------------------------|
| MBTS |             |                |            |               |            |  |   |                                     |
| 1    | Pt100 385   | RTD 2W         | A          | 316ss         | Grounded   | Stainless Steel Overbraid                | Y __. __  | U __. __                            |
| 2    | D100 392    | RTD 2x2W       | B          | Copper        | Ungrounded | Spring & Clib Style "B" Only             | Y (X.XX)  | U (X.XX)                            |
| 3    | J           | RTD 3W         | C          | Ni Plated Cu  | N/A - RTD  | Beryllium Copper Retainer Style "B" Only |   |                                     |
| 4    | K           | RTD 2x3W       | D          | Sn Plated Cu  |            |  |   |                                     |
| 5    | E           | RTD 4W         | E          | Brass         |            |  |   |                                     |
| 6    | T           | RTD 2x4W       |            |               |            |  |   |                                     |
| 7    |             | T/C Single     |            |               |            |  |   |                                     |
| 8    |             | T/C Dual       |            |               |            |  |   |                                     |

### Example

MBTS-1-3-2-1-3-2-40

## Feedthroughs



### Overview

Feedthroughs provide an oil-tight-seal where a cable exits a machine housing. The stainless steel tube is epoxy filled and each wire is sealed to the individual conductor. This prevents wicking of oil inside the wires as well as leakage around the wire insulation.

Feedthroughs can be ordered as an accessory to any sensor in this guide. When ordering feedthroughs with case style B bearing sensors, the spring and retaining ring are automatically included.

### Specifications

**Materials:** 316 Stainless Steel with epoxy potting

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