THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Embeddable Bearing Sensors

Single and Dual Element Bearing RTD Sensors

Embeddable bearing sensors are designed for areas with limitations on size and space. Typically, RTDs (Resistance Temperature Detectors) or thermocouples are installed within the bearing housing to monitor the bearing's temperature. These sensors provide a direct measurement of the bearing's temperature allowing for early detection of potential issues such as overheating, which can lead to bearing failure. Early potential failure detection allows for timely maintenance and prevents costly downtime. These sensors are small and compact, allowing for installation in tight spaces within the bearing housing.

EMBEDDED BEARING APPLICATIONS

- Motor Bearings
- Motor Windings
- Shafts
- Thrust bearings and plates
- Small areas requiring temperature sensing

TECHNICAL CAPABILITIES OF EMBEDDED BEARING RTDS AND THERMOCOUPLES

- RTD Platinum and Nickel elements of 100, 120, and 1000 ohms
- T/C Type E, J, K, and T
- Case material stainless steel and tin-plated copper alloys
- Wiring configuration based on Single or Dual elements
- Class A and Class B accuracy for RTDs
- Cables are stranded copper with PTFE insulation, optional stainless-steel shielding, and oil-resistant overcoating
- Insulation resistances of up to 10 megaohm at 100 Vdc from case to leads
- Optional calibration testing is provided at additional cost

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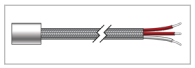
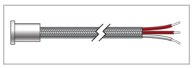
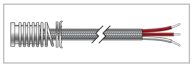
Single and Dual Element Bearing **RTD Sensors**

CASE STYLE A



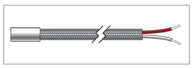
CASE STYLE B



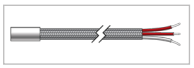


STYLE B W/ADDITIONS

CASE STYLE C



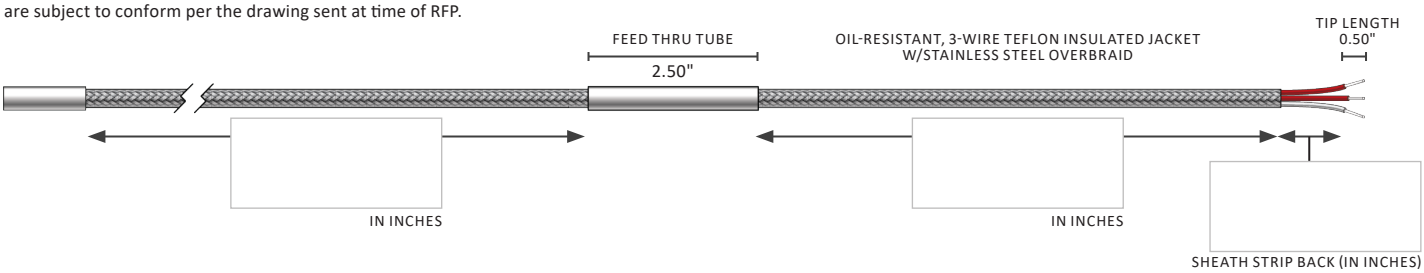
CASE STYLE D



LEAD WIRE SIZE (AWG)	2-Leads	3-Leads	4-Leads	6-Leads
Case Style A	24	24	24	24
Case Style B	24	24	28	28
Case Style C	24	26	30	30
Case Style D	30	30	34	NA

BEARING SENSOR EXAMPLE

All parts are subject to conform per the drawing sent at time of RFP.



CONFIGURATION ORDER CHART

Fill in the boxes with the corresponding codes per your requirements.

CASE STYLE	SENSOR (RTD or Thermocouple)	JUNCTION TYPE	SENSOR CONFIGURATION	WIRE GAUGE	COVERING	LEAD WIRE LENGTH
AC - Case A	P - Platinum RTD (100 Ohm)	X = RTD	S3 = Single, 3-Wire RTD	24 AWG*	SS = Stainless Steal (Overbraid Shielding)	In inches (Ex. 20.5)
BC - Case B	N - Nickel RTD (120 Ohm)		S4 = Single, 4-Wire RTD	26 AWG	Oil = Oil Resistant Wire	
CC - Case C	P1 - Platinum RTD (1,000 Ohm)		D2 = Dual, 2-Wire RTD	30 AWG	NO = None	
DC - Case D (RTD only)			D3 = Dual, 3-Wire RTD (not for Case D)			

*T/C Sensors only use 24 AWG

ADDITIONAL PARTS CONFIGURATION ORDER CHART

TYPE	Size	Your Requirements
Feed thru Length*	0.188"	
	0.215"	
	0.250"	
	0.375"	
Spring/Washer*	Small - 0.136" ID	
	Large - 0.175" ID	

*All orders ship with the (1) 2.5" Feed Thru Length and (2) small Spring/Washer size unless specified otherwise

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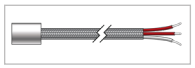
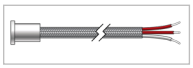
Single and Dual Element Bearing **T/C Sensors**

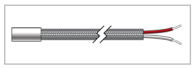
CASE STYLE A

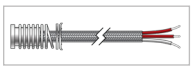


CASE STYLE B



CASE STYLE C





STYLE B W/ADDITIONS

BEARING SENSOR EXAMPLE

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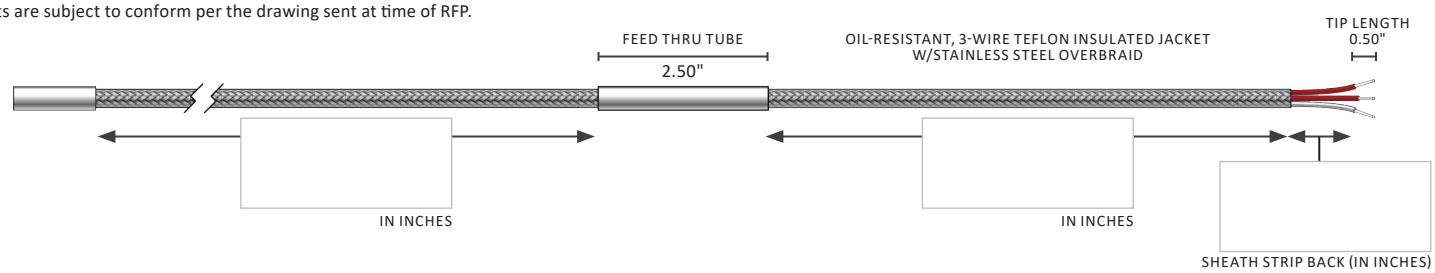

CONFIGURATION ORDER CHART

Fill in the boxes with the corresponding codes per your requirements.

CASE STYLE	SENSOR (RTD or Thermocouple)	JUNCTION TYPE	SENSOR CONFIGURATION	WIRE GAUGE	COVERING	LEAD WIRE LENGTH
AC - Case A	E - T/C Type E	G = Grounded (T/C only)	1TC = 1 Thermal Couple	24 AWG*	SS = Stainless Steal (Overbraid Shielding)	In inches (Ex. 20.5)
BC - Case B	J - T/C Type J	U = Ungrounded (T/C only)	2TC = 2 Thermal Couples		Oil = Oil Resistant Wire	
CC - Case C	K - T/C Type K				NO = None	
	T - T/C Type T					

*T/C Sensors only use 24 AWG

ADDITIONAL PARTS CONFIGURATION ORDER CHART

TYPE	Size	Your Requirements
Feed thru Length*	0.188"	
	0.215"	
	0.250"	
	0.375"	
Spring/Washer*	Small - 0.136" ID	
	Large - 0.175" ID	

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MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

MARKETS


Switchgear


Electronics


Power Generators


Motor Applications


Transformers


Metals Processing


Electric Vehicles


Military/Aerospace


Oil & Gas


Medical


Space

OUR EXPERTISE IS YOUR COMPETITIVE ADVANTAGE

The Gund Company provides a wide range of material solutions from rigid, glass epoxy composites to high-temperature, silicone sponges.

We take a consultative approach to understanding your application by working with your engineers and buyers to find materials that fit the application. By understanding the most important material properties, we often find cost-reduction opportunities. Our Application Engineering Teams have decades of material experience and look forward to working with you on your upcoming project.

Material Families:

- Thermoset Rigid Laminates and Composites
- Flexible Laminates, Papers, Films, and Felts
- Thermoplastic Materials
- Elastomeric Materials

Our Engineering Capabilities Include:

- Custom Material Development
- Resin Formulation
- Laboratory Testing
- Comparative Materials Evaluation

Our Manufacturing Capabilities Include:

- Compression Molding
- Pultrusion
- Filament & Convolute Wound Tube
- Infusion & B-Stage Composites Lay-up and Molding
- Injection Molding
- Extrusion of Thermoplastics

THE GUND COMPANY GLOBAL FOOTPRINT – LOCAL SERVICE