thermo sensors corporation

A Leading Manufacturer of Quality Thermocouple and RTD Assemblies Since 1972

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Thermocouple Wire

This section has been developed to serve as a guide in the selection of wires to accomplish most all temperature measuring requirements. Featured is a large selection of thermoelements, insulation materials and constructions. Should you need assistance, Thermo Sensors' sales personnel are anxious to help you in selecting the wire to give optimum performance in your application.



Thermo Sensors' thermocouple and extension wires are known for their quality performance and reliability. Careful attention is given to the proper selection and matching of conductors to ensure conformance to standard limits of error as defined in ANSI C96.1. Unless otherwise specified, all wire will be furnished to standard limits of error. Many of the wires are available with special limits of error and must be specified when ordering.

Metal Sheathed Thermocouple Wire

Cerampak Thermocouple Wire

Cerampak - magnesium oxide insulated, metal sheathed thermocouple wire - is used primarily to fabricate thermocouple assemblies. The rugged construction of compacted MgO insulation inside a metal sheathing also makes it useful as an extension wire through harmful environments.

All sheath materials are furnished in a properly annealed condition to allow hand bending in the field.

Cerampak is weldable, flexible - can be bend on a radius two times its diameter - and is moisture resistant when properly sealed.

Material selected from the following Table B will be furnished in a coil with the ends sealed. No wires will be exposed unless requested.

Table A is provided to help in the proper selection to suit your requirements.

Table A - Nominal Wire Size and Lengths

Sheath, Fraction	Diameter, Inches	Conductor Size (AWG)*	
		Single	Duplex
-	.040	33	N/A
1/16	.063	29	30
1/8	.125	24	26

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3/16	.188	19	20
1/4	.250	16	19
5/16	.313	14	16
*Sizes given are nominal minimums. Actual sizes may vary.			

Table B - Material Selection

Sheath, Diameter	Order Code	ANSI Calibration	Order Code	Sheath Material	Order Code
.040"	040	Chromel/Constantan	E	304 St. St.	34
1/16" (.063")	1	Iron Constantan	J	310 St. St.	30
1/8" (.125")	2	Chromel/Alumel	K	316 St. St.	36
3/16" (.188")	3	Copper/Constantan	T	347 St. St.	37
1/4" (.250")	4	Plat 10% RH/Plat	S	410 St. St.	40
5/16" (.313")	5	Plat 13% RH/Plat	R	446 St. St.	46
3/8" (.375")	6	Plat 30% RH/Plat 6% RH	B	Inconel 600	60
				Inconel 601	61
				Inconel 702	72
				Inconel 800	80

Notes:
1. For Premium Grade (Special Limits of Error) material: add "PG to the calibration code. Example: 4KPG60

2. For Duplex (4 wire) material: add prefix "2" to the calibration code. Example: 42K60

3. The most commonly used sizes and materials are listed. Others are available - Specify.

How to Order:

Make a selection from each of the 3 sections of Table B and combine to form a catalog number. Specify catalog number and length required.

For duplex (4 wire), special limits of error, or special material - refer to the notes above.

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