

A Leading Manufacturer of Quality Thermocouple and RTD Assemblies Since 1972

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.

Multipair Thermocouple Extension Cable

In many applications the installation of multipair cables is more economical than pulling several single pair wires. The most common calibrations such as JX, KX, and TX are readily available in cable form.

All cables are furnished with twisted pairs and 100% coverage shield tape providing maximum reduction in magnetic and electronic interference.

The available standard cables are listed in the following tables. Special constructions can be quoted to your specifications.

Construction Specifications

Conductors	20 AWGA solid thermocouple extension grade wire matched for standard limits of error per ANSI C96.1. Pairs are twisted.				
Conductor Insulation	.015" of 105°C polyvinyl chloride color coded.*				
Communication Wire	A 20 or 22 gauge polyvinyl chloride insulated copper wire is provided in the cable for communication.				
Identification	Each pair is numbered 1, 2, 3, etc.				
Lay of Twist	1 1/2" to 2 1/2" - involutes staggered				
Shielding	All twisted pairs are bundled and wrapped with 100% coverage of an aluminum backed Mylar tape shield. a 20 AWG bare (solid or stranded) drain wire is in contact with the aluminum side of the tape.				
Overall Jacket	80°C polyvinyl chloride, color coded.* Jacket thickness depends on the number of pairs in the cable per the following table: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th><u>No. of Pairs</u></th> <th><u>Jacket Thickness</u></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	<u>No. of Pairs</u>	<u>Jacket Thickness</u>		
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	4 and 8	.045"
	10, 12, 16, 20, and 24	.060"
*All color coding is per ANSI C96.1.		

Standard Multipair Thermocouple Extension Cable

Type KX Pairs Color Code: Positive Wire (+) - Yellow
 Negative Wire (-) - Red
 Overall Jacket - Yellow

Catalog Number	Number of Pairs	Gauge	Approx. O.D., Inch	Approx. Shipping Weight #/MFT
MP20-4-KX	4	20	.360	83
MP20-8-KX	8	20	.465	131
MP20-12-KX	12	20	.520	198
MP20-16-KX	16	20	.610	245
MP20-20-KX	20	20	.730	285
MP20-24-KX	24	20	.775	338

Type JX Pairs Color Code: Positive Wire (+) - White
 Negative Wire (-) - Red
 Overall Jacket - Black

Catalog Number	Number of Pairs	Gauge	Approx. O.D., Inch	Approx. Shipping Weight #/MFT
MP20-4-JX	4	20	.360	83
MP20-8-JX	8	20	.465	131
MP20-12-JX	12	20	.520	198
MP20-16-JX	16	20	.610	245
MP20-20-JX	20	20	.730	285
MP20-24-JX	24	20	.775	338

Type TX Pairs Color Code: Positive Wire (+) - Blue
 Negative Wire (-) - Red
) - Blue
 Overall Jacket

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Catalog Number	Number of Pairs	Gauge	Approx. O.D., Inch	Approx. Shipping Weight #/MFT
MP20-4-TX	4	20	.350	80
MP20-8-TX	8	20	.420	125
MP20-12-TX	12	20	.500	180
MP20-16-TX	16	20	.550	220
MP20-20-TX	20	20	.600	250
MP20-24-TX	24	20	.630	320