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A Leading Manufacturer of Quality Thermocouple and RTD Assemblies Since 1972

Address: P.O. Box 461947 Garland, TX 75046
Phone: 972-494-1566 **Toll Free:** 1-800-889-5478
Website: www.thermosensors.com

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.

Thermocouple Extension Wire Types, Construction and Characteristics

(Order by Catalog Numbers as shown below and on Page 8).

Type	Single Conductor		Overall		Temperature Rating Continuous	ANSI Color Coded	Insulation Properties	
	Insulation	Impregnation	Insulation	Impregnation			Abrasion Resistance	Moisture Resistance
PN	Polyvinyl .013"	-	Nylon .008" Clear	-	105°C 221°F	Yes	Excellent	Excellent
PP	Polyvinyl .015 to 16 ga. .020 on 14 ga.	-	Polyvinyl .016 to 16 ga. .020 on 14 ga.	-	-29 to +105°C -20 to +221°F	Yes	Good	Excellent
PPZ	Polyvinyl .015"	-	Polyvinyl .020", Twisted	-	-29 to +105°C -20 to +221°F	Yes	Good	Excellent
PPZS	Polyvinyl .015"	-	Polyvinyl .020" Twisted; Alum.-Mylar Shield w/ Drain Wire	-	-29 to +105°C -20 to +221°F	Yes	Good	Excellent

Duplex - ANSI Type KX **Color Code: Positive Wire - Yellow

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(+) - Red
Negative Wire - Yellow
(-)
Overall Jacket

Catalog Number	Wire Size		Type of Wire	Res*	Insulations		Nominal Size Inches	Approx. Shipping Weight #MFT
	Gauge	Inch			Conductors	Overall		
PP14KX	14	.064	Solid	.147	Polyvinyl	Polyvinyl	.130 x .225	36
PP16KX	16	.051	Solid	.233	Polyvinyl	Polyvinyl	.112 x .188	27
PPZ16KX	16	.051	Solid	.133	Polyvinyl	Twisted/Polyvinyl	.222	28
PPZS16KX	16	.051	Solid	.233	Polyvinyl	Twisted, Alum-Mylar & Drain Wire/Polyvinyl	.250	29
PPZ18FKX	18	7/26	Stranded	.315	Polyvinyl	Twisted, Filler, Polyvinyl	.254	39
PP20FKX	20	7/28	Stranded	.538	Polyvinyl	Polyvinyl	.112 x .210	14
PP20KX	20	.032	Solid	.590	Polyvinyl	Polyvinyl	.092 x .150	14
PPZS20KX	20	.032	Solid	.590	Polyvinyl	Twisted, Alum-Maker & Drain Wire/Polyvinyl	.200	20

Duplex - ANSI Type SX and RX
Compensating Extension Wires for ANSI type R, S Thermocouples

**Color Code: Positive Wire (+) - Black
Negative Wire (-) - Red
Overall Jacket - Green

Catalog Number	Wire Size		Type of Wire	Res*	Insulations		Nominal Size Inches	Approx. Shipping Weight #MFT
	Gauge	Inch			Conductors	Overall		
PP16RSX	16	.051	Solid	.016	Polyvinyl	Polyvinyl	.112 x.188	26
PPZS16RSX	16	.051	Solid	.016	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.250	29
RR18FRSX	18	7/26	Stranded	.025	Rubber	Twisted/Rubber	.400	90
GG20RSX	20	.032	Solid	.040	Polyvinyl	Clear Nylon	.081 x .144	17
PP20RSX	20	.032	Solid	.040	Polyvinyl	Polyvinyl	.092 x .150	15

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Duplex - ANSI Type JX

**Color Code: Positive Wire (+) - White
Negative Wire (-) - Red
Overall Jacket - Black

Catalog Number	Wire Size		Type of Wire	Res*	Insulations		Nominal Size Inches	Approx. Shipping Weight #MFT
	Gauge	Inch			Conductors	Overall		
PP14JX	14	.064	Solid	.086	Polyvinyl	Polyvinyl	.130 x .225	37
PN16JX	16	.051	Solid	.137	Polyvinyl	Clear Nylon	.102 x .186	26
PP16JX	16	.051	Solid	.137	Polyvinyl	Polyvinyl	.112 x .188	27
PPZ16JX	16	.051	Solid	.137	Polyvinyl	Twisted/Polyvinyl	.222	28
PPZS16JX	16	.051	Solid	.137	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.250	29
PN16FJX	16	7/24	Stranded	.125	Polyvinyl	Clean Nylon	.120 x .212	24
PPZ18FJX	18	7/26	Stranded	.185	Polyvinyl	Twisted, Filler, Polyvinyl	.254	35
PP20FJX	20	7/28	Stranded	.317	Polyvinyl	Polyvinyl	.115 x .190	14
PN20JX	20	.032	Solid	.357	Polyvinyl	Clear Nylon	.081 x .144	16
PP20JX	20	.032	Solid	.357	Polyvinyl	Polyvinyl	.092 x .150	14
TxTx20JX	20	.032	Solid	.357	Teflon (FEP) Extruded	Teflon (FEP) Extruded	.072 x .124	11
PPZS20JX	20	.032	Solid	.357	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.200	20

Duplex - ANSI Type EX

**Color Code: Positive Wire (+) - Purple
Negative Wire (-) - Red
Overall Jacket - Purple

Catalog Number	Wire Size		Type of Wire	Res*	Insulations		Nominal Size Inches	Approx. Shipping Weight #MFT
	Gauge	Inch			Conductors	Overall		
PP16EX	16	.051	Solid	.278	Polyvinyl	Polyvinyl	.112 x .188	27
PPZ16EX	16	.051	Solid	.278	Polyvinyl	Twisted/Polyvinyl	.222	28
PPZS16EX	16	.051	Solid	.278	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.250	29
PP20EX	20	.032	Solid	.704	Polyvinyl	Polyvinyl	.092 x .150	14
PPZS20EX	20	.032	Solid	.704	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.200	20

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Duplex - ANSI Type TX

**Color Code: Positive Wire (+) - Blue
Negative Wire (-) - Red
Overall Jacket - Blue

Catalog Number	Wire Size		Type of Wire	Res*	Insulations		Nominal Size Inches	Approx. Shipping Weight #MFT
	Gauge	Inch			Conductors	Overall		
PP14TX	14	.064	Solid	.074	Polyvinyl	Polyvinyl	.103 x .225	37
PP16TX	16	.051	Solid	.118	Polyvinyl	Polyvinyl	.130 x .225	37
PPZ16TX	16	.051	Solid	.118	Polyvinyl	Twisted/Polyvinyl	.222	28
PPZS16TX	16	.051	Solid	.118	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.250	29
PP20TX	20	.032	Solid	.298	Polyvinyl	Polyvinyl	.092 x .150	15
PP20FTX	20	7/28	Stranded	.272	Polyvinyl	Polyvinyl	.115 x .190	15
PPZS20TX	20	.032	Solid	.298	Polyvinyl	Twisted, Alum.-Mylar & Drain Wire/Polyvinyl	.200	20

*Resitance is stated in ohms per Double foot at 20°C (68°F) and are nominal values.

**Not ANSI Designations

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