



## Thermocouple Grade Wire Single Pair - XLPE, XLPE/MICA, Silicone Rubber and Kapton® Insulated

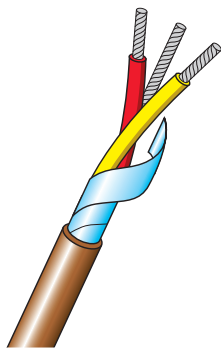


**A range of XLPE (including Intrinsically Safe),  
XLPE/MICA, Silicone Rubber and Kapton®  
insulated single pair Thermocouple Grade Wire  
available from stock**

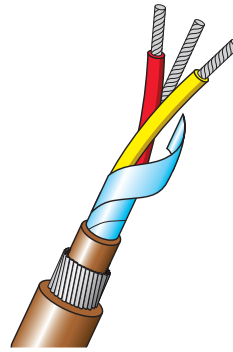
# XLPE Thermocouple Grade Wire

## XLPE Insulated Twisted with Shield (Low Smoke Zero Halogen) -22°F to +158°F

- XLPE (Cross Linked Polyethylene) insulated cores with a Low Smoke Zero Halogen (LSZH) outer sheath
- Ideal for situations where there is a risk of fire and the emission of smoke and gases could threaten life and property
- The acidic gas evolved during combustion is less than 0.5% in accordance with BS6425 Pt 1 1990 and IEC 60754.1: 1996



**XLPE insulated, Twisted with Shield (LSZH)**  
One pair of **stranded** conductors. Cores XLPE insulated. Pair twisted, shielded with Mylar® aluminium tape and drain wire. LSZH sheathed overall.















**XLPE insulated, Twisted with Shield and Armor (LSZH)**  
One pair of **stranded** conductors. Cores XLPE insulated. Pair twisted, shielded with Mylar® aluminium tape and drain wire. LSZH bedded. Steel wire armored and LSZH sheathed.

Stock Number		G29	G31	G94	G95
CONDUCTORS	Wire Type (number of strands x AWG)	16x32	24x32	16x32	24x32
	Total Wire Size - AWG (S = Stranded)	20S	18S	20S	18S
	Total Area (mm <sup>2</sup> )	0.5	0.75	0.5	0.75
	Insulation	XLPE		XLPE	
PAIRS	Number of Pairs	1		1	
	Conductor Configuration	Twisted		Twisted	
	Shielded*	Yes		Yes	
OVERALL	Insulation	LSZH		LSZH	
	Insulation Rating (°F)	Continuous		-22 to +158	
		Short Term		+190	
	Color Coding	Yes		Yes	
	Physical Properties	Abrasion Resistance		Good	
		Moisture Resistance		Very Good	
		Typical Weight (lbs/1000ft) (excluding reel)		Very Good	
	Diameter under Armor (inches)	—		0.22"	0.24"
	Diameter over Armor (inches)	—		0.31"	0.32"
	Overall Diameter† (inches)	0.24"	0.26"	0.41"	0.44"
Notes		Free of halogens. Round section. Rejects electromagnetic and electrostatic interference.		Free of halogens. Round section. Rejects electromagnetic and electrostatic interference. Armored for mechanical strength.	

\* Aluminised Mylar® tape in contact throughout by a bare 7/0.3mm diameter tinned copper drainwire.

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

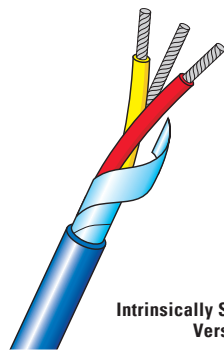
Color Codes available Thermocouple Grade to ANSI MC96.1		Order Code - Example						
					Stock No.	Thermocouple Type	Color Code	
KK	JJ	TT	NN	EE	G29	- KK	- ANSI	
<b>ALSO AVAILABLE as Extension Grade to ANSI MC96.1</b>					Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.			
							Thermocouple wire is normally available from us for <b>immediate</b> delivery from stock to ANSI MC96.1 colour coding.	
KX	JX	TX	NX	EX	SX	RX		

IEC colors are available on request

# XLPE Thermocouple Grade Wire

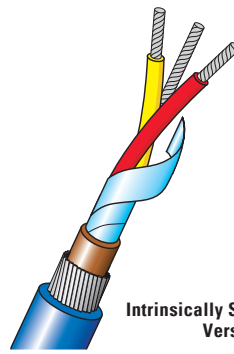
Intrinsically Safe XLPE Insulated Twisted with Shield (Low Smoke Zero Halogen) -22°F to +158°F

- XLPE (Cross Linked Polyethylene) insulated cores with a Low Smoke Zero Halogen (LSZH) outer sheath
- Ideal for situations where there is a risk of fire and the emission of smoke and gases could threaten life and property
- The acidic gas evolved during combustion is less than 0.5% in accordance with BS6425 Pt 1 1990 and IEC 60754.1: 1996



Intrinsically Safe Version

**XLPE insulated, Twisted with Shield (LSZH)**  
One pair of **stranded** conductors. Cores XLPE insulated. Pair twisted, shielded with Mylar® aluminium tape and drain wire. LSZH sheathed overall.



Intrinsically Safe Version

**XLPE insulated, Twisted with Shield and Armor (LSZH)**  
One pair of **stranded** conductors. Cores XLPE insulated. Pair twisted, shielded with Mylar® aluminium tape and drain wire. LSZH bedded. Steel wire armored and LSZH sheathed.

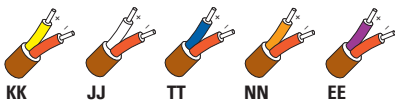
Stock Number		GS29	GS31	GS94	GS95
CONDUCTORS	Wire Type (number of strands x AWG)	16x32	24x32	16x32	24x32
	Total Wire Size - AWG (S = Stranded)	20S	19S	20S	19S
	Total Area (mm <sup>2</sup> )	0.5	0.75	0.5	0.75
	Insulation	XLPE		XLPE	
PAIRS	Number of Pairs	1		1	
	Conductor Configuration	Twisted		Twisted	
	Shielded*	Yes		Yes	
OVERALL	Insulation	LSZH		LSZH	
	Insulation Rating (°F)	Continuous		-22 to +158	
		Short Term		+190	
	Color Coding	Yes		Yes	
	Physical Properties	Abrasion Resistance		Good	
		Moisture Resistance		Very Good	
		Typical Weight (lbs/1000ft) (excluding reel)		130	150
	Diameter under Armor (inches)	—		0.22"	0.30"
	Diameter over Armor (inches)	—		0.24"	0.32"
	Overall Diameter† (inches)	0.24"	0.26"	0.41"	0.44"
Notes		Free of halogens. Round section. Rejects electromagnetic and electrostatic interference.		Free of halogens. Round section. Rejects electromagnetic and electrostatic interference. Armored for mechanical strength.	

\* Aluminised Mylar® tape in contact throughout by a bare 7/0.3mm diameter tinned copper drainwire.

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

Color Codes available Thermocouple Grade to ANSI MC96.1



KK

JJ

TT

NN

EE

ALSO AVAILABLE as Extension Grade to ANSI MC96.1



KX

JX

TX

NX

EX

SX

RX

Order Code - Example

Stock No.	Thermocouple Type	Color Code
GS29	- KK	- ANSI

Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.

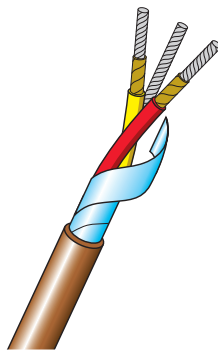
Thermocouple wire is normally available from us for **immediate** delivery from stock to ANSI MC96.1 colour coding.

IEC colors are available on request

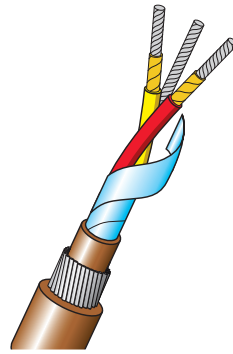
# MICA/XLPE Thermocouple Grade Wire

Fire Resistant MICA/XLPE Low Smoke Zero Halogen -22°F to +165°F

- Essential for situations where it is of strategic importance to ensure that the cable continues to function during a major crisis involving fire. Resistant to temperatures of 1380°F for at least three hours in most conditions.
- The cable incorporates a high temperature rated Mica glass tape with an XLPE (Cross Linked Polyethylene) insulated cores with a Low Smoke Zero Halogen (LSZH) outer sheath.
- Sheathing materials are Halogen free



**Mica Taped XLPE insulated, Twisted with Shield (LSZH)**  
One pair of **stranded** conductors Mica taped and XLPE insulated. Pair twisted. Shielded with Mylar® aluminium tape and drainwire. LSZH sheathed.





**Mica Taped XLPE insulated, Twisted with Shield & Armor (LSZH)**  
One pair of **stranded** conductors Mica taped and XLPE insulated. Pair twisted. shielded with Mylar® aluminium tape and drain wire. LSZH bedded. Steel wire armored and LSZH sheathed.

Stock Number		G98	G97	G99	G96
CONDUCTORS	Wire Type (number of strands x AWG)	16x32	23x32	16x32	23x32
	Total Wire Size - AWG (S = Stranded)	S20	S19	20S	19S
	Total Area (mm <sup>2</sup> )	0.5	0.75	0.5	0.75
	Insulation	MICA and XLPE		MICA and XLPE	
PAIRS	Number of Pairs	1		1	
	Conductor Configuration	Twisted		Twisted	
	Shielded*	Yes		Yes	
OVERALL	Insulation	LSZH		LSZH	
	Insulation Rating (°F)	Continuous		-22 to +158	
		Short Term		+1380	
	Color Coding	Yes		Yes	
	Physical Properties	Abrasion Resistance		Good	
		Moisture Resistance		Very Good	
		Typical Weight (lbs/1000ft) (excluding reel)		Very Good	
	Diameter under Armor (inches)	—		0.28"	0.34"
	Diameter over Armor (inches)	—		0.35"	0.41"
	Overall Diameter† (inches)	0.28"	0.33"	0.47"	0.54"
Notes		Excellent for signal continuity in the event of a fire. Free of halogens. Round section. Rejects electromagnetic and electrostatic interference.		Excellent for signal continuity in the event of a fire. Free of halogens. Round section. Rejects electromagnetic and electrostatic interference. Armored for mechanical strength.	

\* Aluminised Mylar® tape in contact throughout by a bare 7/0.3mm diameter tinned copper drainwire.

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

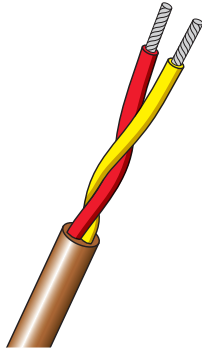
Color Codes available Thermocouple Grade to ANSI MC96.1		Order Code - Example		
		Stock No.	Thermocouple Type	Color Code
		G98	- KK -	ANSI
ALSO AVAILABLE as Extension Grade to ANSI MC96.1		Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.		
		Thermocouple wire is normally available from us for immediate delivery from stock to ANSI MC96.1 colour coding.		

IEC colors are available on request

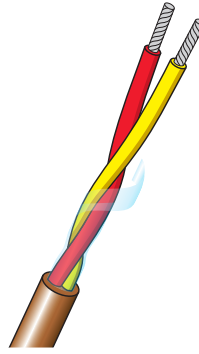
# Silicone Rubber Thermocouple Grade Wire

## Flame Retardant Silicone Rubber Insulated Single Pairs -40°F to +390°F

- Excellent properties for the reduced propagation of flame by incorporation of flame retardant Silicone Rubber compounds
- Ideal for applications where, for short periods of time, the temperature can fluctuate, which would cause other wire to become inflexible and brittle.



**Flame Retardant Silicone Rubber insulated, Twisted Pair**  
One pair of **stranded** conductors. Cores PFA insulated. Silicone Rubber sheathed.





**Flame Retardant Silicone Rubber insulated, Twisted Pair with Mylar® Tape**  
One pair of **stranded** conductors. Cores Silicone Rubber insulated. Pair twisted and Mylar® taped. Silicone Rubber sheathed.

Stock Number		SR30	SR31	SR73	SR77	SR80
CONDUCTORS	Wire Type (number of strands x AWG)	7x32	7x32	7x28	19x28	16x32
	Total Wire Size - AWG (S = Stranded)	24S	24S	20S	16S	20S
		0.22	0.22	0.49	1.34	0.5
	Insulation	PFA	FR Silicone Rubber	Flame Retardant Silicone Rubber		
PAIRS	Number of Pairs	1		1		
	Conductor Configuration	Twisted		Twisted		
	Shielded*	No		No		
OVERALL	Insulation	Flame Retardant Silicone Rubber		Flame Retardant Silicone Rubber		
	Insulation Rating (°F)	Continuous		-40 to +390		
		Short Term		-50 to +480		
	Color Coding	Yes		Yes		
	Physical Properties	Abrasion Resistance		Good		
		Moisture Resistance		Very Good		
		Typical Weight (lbs/1000ft) (excluding reel)		7	28	31
	Diameter under Armor (inches)	—		—		
	Diameter over Armor (inches)	—		—		
	Overall Diameter† (inches)	0.12"	0.18"	0.28"	0.33"	0.24"
Notes		Flame retardant. Round section. Rejects electromagnetic interference.		Flame retardant. Round section. Rejects electromagnetic interference.		

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

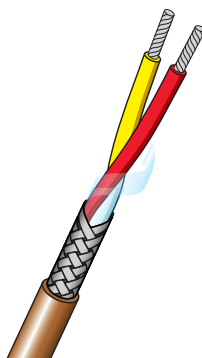
Color Codes available Thermocouple Grade to ANSI MC96.1		Order Code - Example		
 <div>KKJJTNTNEE</div>		Stock No.	Thermocouple Type	Color Code
		SR80	- KK	- ANSI
ALSO AVAILABLE as Extension Grade to ANSI MC96.1		Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.		
 <div>KXJXTXNXEXSXRX</div>		Thermocouple wire is normally available from us for immediate delivery from stock to ANSI MC96.1 colour coding.		

IEC colors are available on request

# Silicone Rubber Thermocouple Grade Wire

## Flame Retardant Silicone Rubber Insulated Single Pairs -40°F to +390°F

- Excellent properties for the reduced propagation of flame by incorporation of flame retardant Silicone Rubber compounds
- Ideal for applications where, for short periods of time, the temperature can fluctuate, which would cause other wire to become inflexible and brittle.















**Flame Retardant Silicone Rubber, Twisted Pair with Nickel Plated Copper Braid**  
One pair of stranded conductors. Cores Silicone Rubber insulated. Pair twisted and Mylar® taped with nickel plated copper braid. Silicone Rubber sheathed.

Stock Number		SR35	SR74	SR76	SR78	SR79
CONDUCTORS	Wire Type (number of strands x AWG)	7x32	7x28	16x32	19x28	48x32
	Total Wire Size - AWG (S = Stranded)	24S	20S	20S	16S	15S
	Total Area (mm <sup>2</sup> )	0.22	0.49	0.5	1.34	1.5
	Insulation	Flame Retardant Silicone Rubber				
PAIRS	Number of Pairs	1				
	Conductor Configuration	Twisted				
	Shielded*	Yes				
OVERALL	Insulation	Flame Retardant Silicone Rubber				
	Insulation Rating (°F)	Continuous	-40 to +390			
		Short Term	-50 to +480			
	Color Coding	Yes				
	Physical Properties	Abrasion Resistance	Good			
		Moisture Resistance	Very Good			
	Typical Weight (lbs/1000ft) (excluding reel)	21	43	68	68	75
	Diameter under Armor (inches)	—				
	Diameter over Armor (inches)	—				
Overall Diameter <sup>†</sup> (inches)						
Notes		Flame retardant. Round section. Rejects electromagnetic interference.				

\* Where wire incorporate a metal braid, the braid can be used as a shield.

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

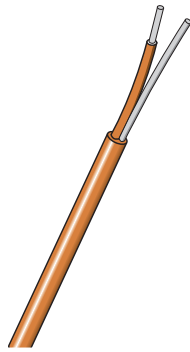
Color Codes available Thermocouple Grade to ANSI MC96.1	Order Code - Example		
    	Stock No.	Thermocouple Type	Color Code
	<b>SR76</b>	<b>-</b>	<b>KK - ANSI</b>
<b>ALSO AVAILABLE as Extension Grade to ANSI MC96.1</b>	Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.  Thermocouple wire is normally available from us for <b>immediate</b> delivery from stock to ANSI MC96.1 colour coding.		
      			

IEC colors are available on request

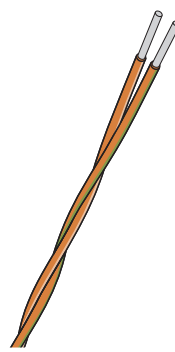
# Kapton® Thermocouple Grade Wire

## Kapton® Insulated Parallel Construction and Twisted Pair Wire -100°F to +545°F

- Suitable for temperatures ranging from -100°F to +545°F
- Flame retardant with resistance to chemicals and radiation
- Excellent physical, electrical and mechanical properties over high temperatures
- Has high dielectric strength and excellent abrasion resistance



**Kapton® Laid Parallel Pair**  
One pair of **solid** conductors. Negative leg Kapton insulated. Pair laid flat and Kapton sheathed.



**Kapton® Twisted Pair**  
One pair of **solid** or **stranded** Kapton insulated. Pair twisted.

Stock Number			B08	B09	B02
CONDUCTORS	Wire Type (number of strands x AWG)		Solid	Solid	7x32
	Total Wire Size - AWG (S = Stranded)		30	24	24S
	Total Area (mm <sup>2</sup> )		0.05	0.2	0.22
	Insulation		Kapton®	Kapton®	
PAIRS	Number of Pairs		1	1	
	Conductor Configuration		Laid Flat	Twisted	
	Shielded		No	No	
OVERALL	Insulation		Kapton®	—	
	Insulation Rating (°F)	Continuous	-100 to +545	-100 to +545	
		Short Term	+750	+750	
	Color Coding		No	No	
	Physical Properties	Abrasion Resistance	Very Good	Very Good	
		Moisture Resistance	Fair	Fair	
		Typical Weight (lbs/1000ft) (excluding reel)	<7	<7	<7
	Diameter under Armor (inches)		—	—	—
	Diameter over Armor (inches)		—	—	—
	Overall Diameter† (inches)		0.03”	0.05”	0.06”
Notes			Egg shaped construction	Rejects electromagnetic interference.	

† These values are nominal and if critical to your application, please request a physical check.

The wire constructions can also be manufactured to any other color coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding wire lengths please let us know so that we may make a satisfactory offer to meet your needs.

Order Code - Example	
Stock No.	Thermocouple Type
<b>B08</b>	<b>- KK</b>
Thermocouple wire is available in the following types: KK, JJ, TT, NN or EE. Other less popular thermocouple types are available on request.	
These cables are normally available from us for <b>immediate</b> delivery from stock.	



**TC Measurement and Control Inc**  
**PO Box 685**  
**Hillside , IL 60162**  
**Tel: 708-449-0700**  
**Toll Free: 877 244 1777**  
**Fax: 708-449-0777**  
**Email: [info@tc-inc.com](mailto:info@tc-inc.com)**  
**Web: [www.tc-inc.com](http://www.tc-inc.com)**

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