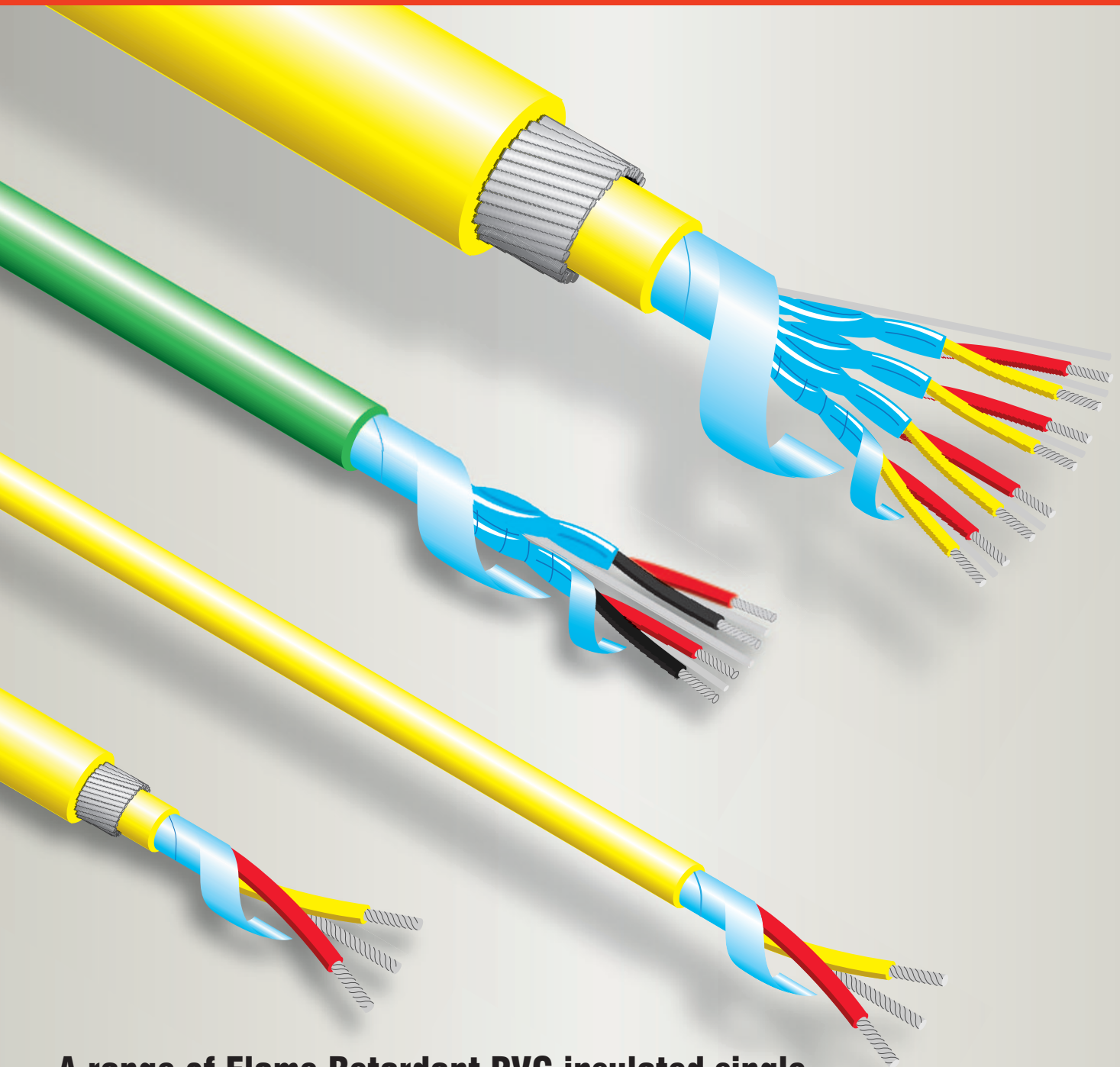




## Thermocouple Extension Grade Wire - Single and Multipair Flame Retardant PVC Insulated



**A range of Flame Retardant PVC insulated single and multipair Thermocouple Extension Grade Wire available from stock for immediate delivery**

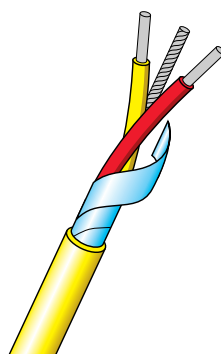
We also have a similar range of Heat Resistant PVC wire - please ask us for details

**TC for Temperature Sensing, Measurement and Control**

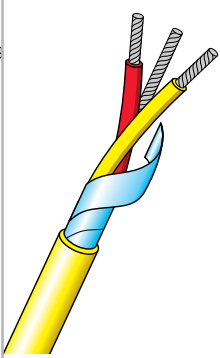
# FR PVC Thermocouple Extension Grade Wire

## Flame Retardant PVC Insulated Twisted Wire -22°F to +165°F

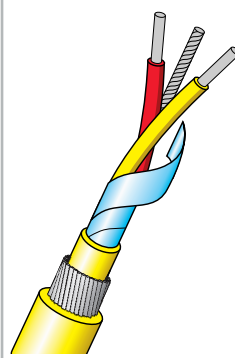
- Excellent properties for the reduced propagation of flame by incorporation of flame retardant (FR) PVC compounds
- Suitable for situations where there is a risk of fire
- These wire meet the requirements of IEC 60332.1:2004 covering tests on wire that are under fire conditions
- The Oxygen Index Value is not less than 30 in accordance with ASTM D2863



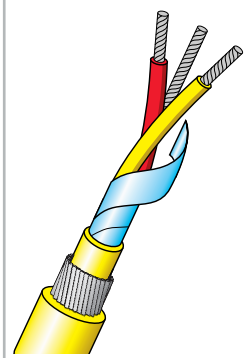
**FR PVC Twisted Pair with Shield**  
One pair of **solid** conductors. Cores FR PVC insulated. Pair twisted, shielded with Mylar aluminium tape and drain wire. FR PVC sheathed overall.



**FR PVC Twisted Pair with Shield**  
One pair of **stranded** conductors. FR PVC insulated. Pair twisted, shielded with Mylar aluminium tape and drain wire. FR PVC sheathed overall.



**FR PVC Twisted Pair with Shield and Armor**  
One pair of **solid** conductors FR PVC insulated. Pair twisted, shielded with Mylar aluminium tape and drain wire. FR PVC bedded, steel wire armored & FR PVC sheathed.



**FR PVC Twisted Pair with Shield and Armor**  
One pair of **stranded** conductors. Cores FR PVC insulated. Pair twisted, shielded with Mylar aluminium tape and drain wire. FR PVC bedded, steel wire armored and FR PVC sheathed.

Stock Number			FR20	FR25	FR29	FR30	FR50	FR89	FR90	FR94	FR95
CONDUCTORS	Wire Type (number of strands x AWG)		Solid	Solid	16x32	7x32	23x32	Solid	Solid	16x32	23x32
	Total Wire Size - AWG (S = Stranded)		20	16	20S	24S	19S	20	16	20S	19S
	Total Area (mm <sup>2</sup> )		0.5	1.3	0.5	0.22	0.75	0.5	1.3	0.5	0.75
	Insulation		Flame Retardant PVC		Flame Retardant PVC		Flame Retardant PVC		Flame Retardant PVC		
PAIRS	Number of Pairs		1		1		1		1		
	Conductor Configuration		Twisted		Twisted		Twisted		Twisted		
	Shielded*		Yes		Yes		Yes		Yes		
OVERALL	Insulation		Flame Retardant PVC		Flame Retardant PVC		Flame Retardant PVC		Flame Retardant PVC		
	Insulation Rating (°F)	Continuous	-22 to +165		-22 to +165		-22 to +165		-22 to +165		
		Short Term	—		—		—		—		
	Color Coding		Yes		Yes		Yes		Yes		
	Physical Properties	Abrasion Resistance		Good		Good		Good		Good	
		Moisture Resistance		Very Good		Very Good		Very Good		Very Good	
		Typical Weight (lbs/1000ft) (excluding reel)		28	28	34	21	48	130	204	130
	Diameter under Armor (inches)		—		—		0.22"		0.28"	0.22"	0.24"
	Diameter over Armor (inches)		—		—		0.30"		0.35"	0.30"	0.31"
	Overall Diameter† (inches)		0.22"	0.28"x0.28"	0.22"	0.18"	0.26"	0.37"	0.43"	0.41"	0.43"
Notes			Flame Retardant. Round section. Rejects electromagnetic and electrostatic interference.		Flame Retardant. Round section. Rejects electromagnetic and electrostatic interference.		Flame Retardant. Round section. Rejects electromagnetic and electrostatic interference. Armored for mechanical strength.		Flame Retardant. Round section. Rejects electromagnetic and electrostatic interference. Armored for mechanical strength.		

\* Aluminised Mylar® tape in contact throughout by a bare 7x28 AWG 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 Extension Grade to ANSI MC96.1



### ALSO AVAILABLE as Thermocouple Grade to ANSI MC96.1



### Order Code - Example

Stock No.	Thermocouple Type	Color Code
FR30	- KX	- ANSI

Thermocouple wire is available in the following types: KX, JX, TX, NX, EX, SX or RX. Other less popular thermocouple types are available on request.

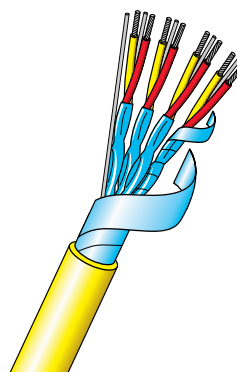
Thermocouple wire is normally available from us for **immediate** delivery from stock to ANSI MC96.1 colour coding.

IEC colors are available on request

# FR PVC Thermocouple Extension Grade Wire

## 24 AWG Non Armored Flame Retardant PVC Insulated Multipairs -22°F to +165°F

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 24 AWG conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC
- Meet the requirements of IEC 60332.3 Category C covering tests on wire under fire conditions
- Armored versions are also available. See page 5



### Non Armored PVC Multipair

Multipairs of stranded 24 AWG conductors FR PVC insulated. Pairs numbered, twisted and individually shielded with Mylar® aluminium tape with a drainwire. Pairs laid up, overall shielded with Mylar® aluminium tape with a drainwire. FR PVC sheathed.

Stock Number		M1702	M1704	M1706	M1708	M1712	M1716	M1720	M1724	M1736	M1750	
CONDUCTORS	Wire Type (number of strands x AWG)	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S	24S	24S	24S	24S	24S	24S	24S	
	Total Area (mm <sup>2</sup> )	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
	Insulation	Flame Retardant PVC										
PAIRS	Number of Pairs	2	4	6	8	12	16	20	24	36	50	
	Conductor Configuration	Twisted										
	Shielded*	Yes - Individually Screened Pairs										
OVERALL	Insulation	Flame Retardant PVC										
	Insulation Rating (°F)	Continuous										
		-22 to +165										
		Short Term										
		—										
	Color Coding	Yes										
	Shielded*	Yes - Collective, Overall Shield										
	Physical Properties	Abrasion Resistance	Good									
		Moisture Resistance	Very Good									
		Typical Weight (lbs/1000ft) (excluding reel)	48	55	89	96	157	184	218	252	354	510
Diameter under Armor (inches)	—											
Diameter over Armor (inches)	—											
Overall Diameter† (inches)	0.31"	0.32"	0.38"	0.41"	0.50"	0.56"	0.63"	0.68"	0.78"	0.96"		
Notes		Individually and collectively shielded. Flame retardant PVC insulated.										

\* Aluminised Mylar® tape in contact throughout by a bare 7x28 AWG diameter tinned copper drainwire.

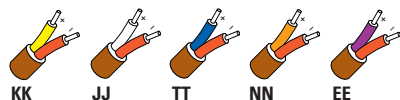
† These values are nominal and if critical to your application, please request a physical check.

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 Extension Grade to ANSI MC96.1



### ALSO AVAILABLE as Thermocouple Grade to ANSI MC96.1



### Order Code - Example

Stock No.	Thermocouple Type	Color Code
M1706	- KX	- ANSI

Thermocouple wire is available in the following types: KX, JX, TX, NX, EX, SX or RX. Other less popular thermocouple types are available on request.

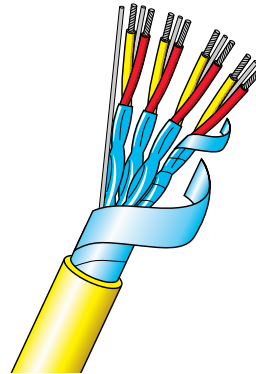
Thermocouple wire is normally available from us for **immediate** delivery from stock to ANSI MC96.1 colour coding.

IEC colors are available on request

# FR PVC Thermocouple Extension Grade Wire

## 20 AWG Non Armored Flame Retardant PVC Insulated Multipairs -22°F to +165°F

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 20 AWG conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC
- Meet the requirements of IEC 60332.3 Category C covering tests on wire under fire conditions
- Armored versions are also available. See page 6



### Non Armored PVC Multipair

Multipairs of stranded 20 AWG conductors FR PVC insulated. Pairs numbered, twisted and individually shielded with Mylar® aluminium tape with a drainwire. Pairs laid up, overall shielded with Mylar® aluminium tape with a drainwire. FR PVC sheathed.

Stock Number		M3502	M3504	M3506	M3508	M3512	M3516	M3520	M3524	M3536	M3550	
CONDUCTORS	Wire Type (number of strands x AWG)	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	
	Total Wire Size - AWG (S = Stranded)	20S	20S	20S	20S	20S	20S	20S	20S	20S	20S	
	Total Area (mm <sup>2</sup> )	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Insulation	Flame Retardant PVC										
PAIRS	Number of Pairs	2	4	6	8	12	16	20	24	36	50	
	Conductor Configuration	Twisted										
	Shielded*	Yes - Individually Shielded Pairs										
OVERALL	Insulation	Flame Retardant PVC										
	Insulation Rating (°F)	Continuous										
		-22 to +165										
		Short Term										
		—										
	Color Coding	Yes										
	Shielded*	Yes - Collective, Overall Shield										
	Physical Properties	Abrasion Resistance	Good									
		Moisture Resistance	Very Good									
		Typical Weight (lbs/1000ft) (excluding reel)	75	116	157	211	306	408	504	606	816	1122
Diameter under Armor (inches)	—											
Diameter over Armor (inches)	—											
Overall Diameter† (inches)	0.42”	0.49”	0.60”	0.63”	0.80”	0.90”	0.98”	1.12”	1.31”	1.54”		
Notes		Individually and collectively shielded. Flame retardant PVC insulated.										

\* Aluminised Mylar® tape in contact throughout by a bare 7x28 AWG diameter tinned copper drainwire.

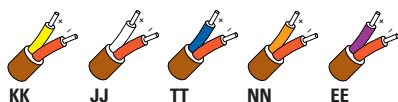
† These values are nominal and if critical to your application, please request a physical check.

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 Extension Grade to ANSI MC96.1



### ALSO AVAILABLE as Thermocouple Grade to ANSI MC96.1



### Order Code - Example

Stock No.	Thermocouple Type	Color Code
M3506	- KX	- ANSI

Thermocouple wire is available in the following types: KX, JX, TX, NX, EX, SX or RX. Other less popular thermocouple types are available on request.

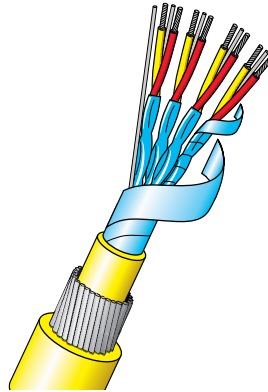
Thermocouple wire is normally available from us for **immediate** delivery from stock to ANSI MC96.1 colour coding.

IEC colors are available on request

# FR PVC Thermocouple Extension Grade Wire

## 24 AWG Armored Flame Retardant PVC Insulated Multipairs -22°F to +165°F

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 24 AWG conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC with stainless steel armor overall
- Meet the requirements of IEC 60332.3 Category C covering tests on wire under fire conditions



### Armored PVC Multipair

Multipairs of stranded 24 AWG conductors FR PVC insulated.  
Pairs numbered, twisted and individually shielded with Mylar® aluminium tape with a drainwire.  
Pairs laid up, overall shielded with Mylar® aluminium tape with a drainwire.  
FR PVC bedded. Steel wire armored and FR PVC sheathed.

Stock Number		M1702/ SWA	M1704/ SWA	M1706/ SWA	M1708/ SWA	M1712/ SWA	M1716/ SWA	M1720/ SWA	M1724/ SWA	M1736/ SWA	M1750/ SWA	
CONDUCTORS	Wire Type (number of strands x AWG)	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	7x32	
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S	24S	24S	24S	24S	24S	24S	24S	
	Total Area (mm <sup>2</sup> )	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Insulation	Flame Retardant PVC										
PAIRS	Number of Pairs	2	4	6	8	12	16	20	24	36	50	
	Conductor Configuration	Twisted										
	Shielded*	Yes - Individually Shielded Pairs										
OVERALL	Insulation		Flame Retardant PVC									
	Insulation Rating (°F)	Continuous	-22 to +165									
		Short Term	—									
	Color Coding		Yes									
	Shielded*		Yes - Collective, Overall Shield									
	Physical Properties	Abrasion Resistance		Good								
		Moisture Resistance		Very Good								
		Typical Weight (lbs/1000ft) (excluding reel)		211	232	286	306	402	463	517	578	714
	Diameter under Armor (inches)		0.30"	0.33"	0.38"	0.41"	0.49"	0.55"	0.60"	0.65"	0.75"	0.89"
	Diameter over Armor (inches)		0.37"	0.40"	0.45"	0.49"	0.56"	0.62"	0.67"	0.72"	0.86"	0.96"
	Overall Diameter <sup>†</sup> (inches)		0.42"	0.52"	0.58"	0.61"	0.71"	0.78"	0.83"	0.88"	0.98"	1.12"
	Notes		Individually and collectively shielded. Flame retardant PVC insulated.									

\* Aluminised Mylar® tape in contact throughout by a bare 7x28 AWG 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 Extension Grade to ANSI MC96.1



### ALSO AVAILABLE as Thermocouple Grade to ANSI MC96.1



### Order Code - Example

Stock No.	Thermocouple Type	Color Code
M1702/SWA	- KX	- ANSI

Thermocouple wire is available in the following types: KX, JX, TX, NX, EX, SX or RX. Other less popular thermocouple types are available on request.

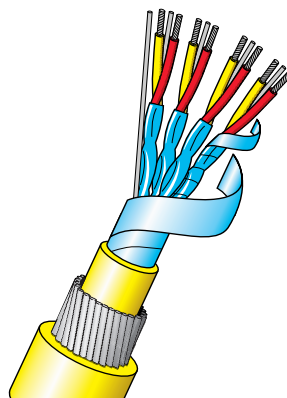
Thermocouple wire is normally available from us for **immediate** delivery from stock to ANSI MC96.1 colour coding.

IEC colors are available on request

# FR PVC Thermocouple Extension Grade Wire

## 20 AWG Armored Flame Retardant PVC Insulated Multipairs -22°F to +165°F

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 20 AWG conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC with stainless steel armor overall
- Meet the requirements of IEC 60332.3 Category C covering tests on wire under fire conditions



### Armored PVC Multipair

Multipairs of stranded 20 AWG conductors FR PVC insulated.  
Pairs numbered, twisted and individually shielded with Mylar® aluminium tape with a drainwire.  
Pairs laid up, overall shielded with Mylar® aluminium tape with a drainwire. FR PVC bedded.  
Steel wire armored and FR PVC sheathed.

Stock Number		M3502/ SWA	M3504/ SWA	M3506/ SWA	M3508/ SWA	M3512/ SWA	M3516/ SWA	M3520/ SWA	M3524/ SWA	M3536/ SWA	M3550/ SWA	
CONDUCTORS	Wire Type (number of strands x AWG)	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	16x32	
	Total Wire Size - AWG (S = Stranded)	20S	20S	20S	20S	20S	20S	20S	20S	20S	20S	
	Total Area (mm <sup>2</sup> )	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Insulation	Flame Retardant PVC										
PAIRS	Number of Pairs	2	4	6	8	12	16	20	24	36	50	
	Conductor Configuration	Twisted										
	Shielded*	Yes - Individually Shielded Pairs										
OVERALL	Insulation	Flame Retardant PVC										
	Insulation Rating (°F)	Continuous										
		-22 to +165										
	Short Term		—									
	Color Coding	Yes										
	Shielded*	Yes - Collective, Overall Shield										
	Physical Properties	Abrasion Resistance		Good								
		Moisture Resistance		Very Good								
		Typical Weight (lbs/1000ft) (excluding reel)		238	374	463	572	762	986	1143	1408	1802
	Diameter under Armor (inches)		0.42"	0.49"	0.60"	0.63"	0.80"	0.90"	0.98"	1.12"	1.31"	1.54"
	Diameter over Armor (inches)		0.47"	0.59"	0.70"	0.76"	0.93"	1.02"	1.11"	1.28"	1.46"	1.74"
Overall Diameter† (inches)		0.58"	0.71"	0.82"	0.88"	1.07"	1.17"	1.26"	1.43"	1.63"	1.92"	
Notes		Individually and collectively shielded. Flame retardant PVC insulated.										

\* Aluminised Mylar® tape in contact throughout by a bare 7x28 AWG 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 Extension Grade to ANSI MC96.1



### ALSO AVAILABLE as Thermocouple Grade to ANSI MC96.1



### Order Code - Example

Stock No.	Thermocouple Type	Color Code
M3502/SWA	- KX	- ANSI
Thermocouple wire is available in the following types: KX, JX, TX, NX, EX, SX or RX. 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







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