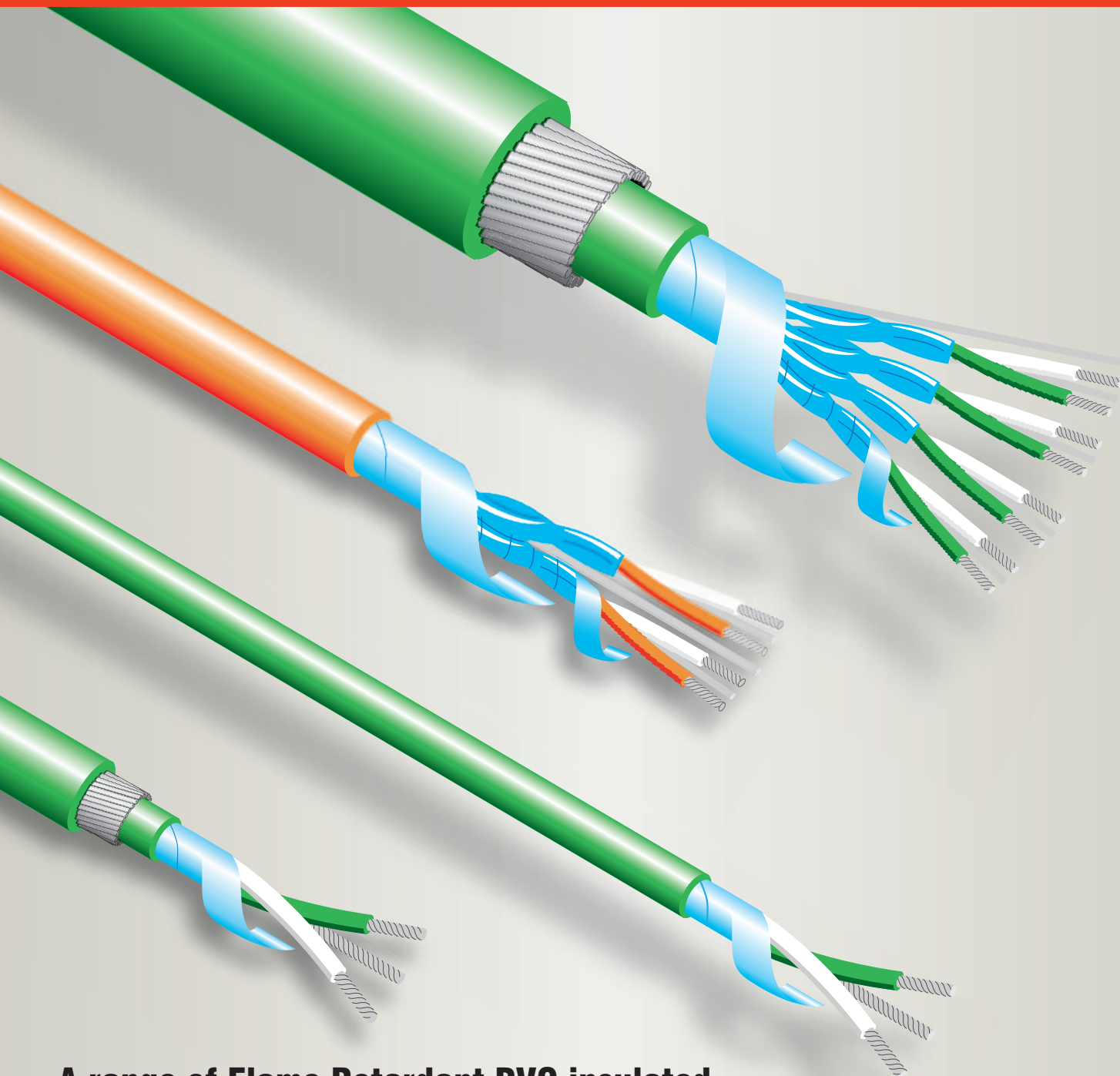




Flame Retardant PVC Insulated Thermocouple Cables - Single and Multipairs



**A range of Flame Retardant PVC insulated
Single and Multipair Thermocouple Cables
available from stock for immediate delivery**

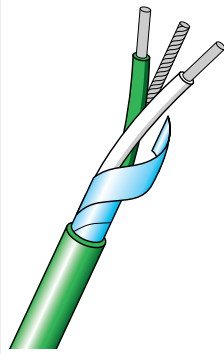
Heat Resistant PVC cables also available - request our separate datasheet

TC Ltd for Temperature Sensing, Measurement and Control

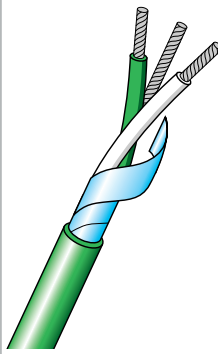
FR PVC Insulated Single Pair Thermocouple Cable

Flame Retardant PVC Insulated Twisted Cables -30°C to +75°C

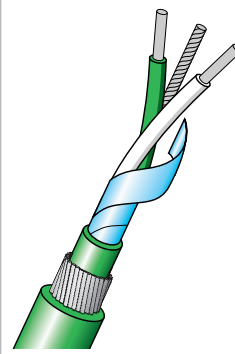
- Excellent properties for the reduced propagation of flame by incorporation of flame retardant (FR) PVC compounds
- Suitable for situations where there is a risk of fire
- These cables meet the requirements of BS4066 Part 1: 1980/IEC 60332.1:2004 covering tests on cables that are under fire conditions
- The Oxygen Index Value is not less than 30 in accordance with BS2782 Part 1:1989 Method 141



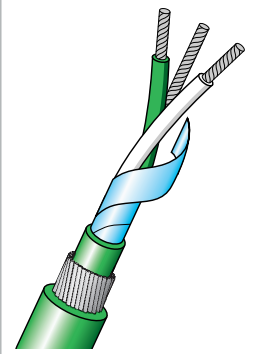
FR PVC Twisted Pair with Screen
One pair of **solid** conductors. Cores FR PVC insulated. Pair twisted, screened with Mylar® aluminium tape and drain wire. FR PVC sheathed overall.



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



FR PVC Twisted Pair with Screen and Armour
One pair of **solid** conductors FR PVC insulated. Pair twisted, screened with Mylar® aluminium tape and drain wire. FR PVC bedded, steel wire armoured & FR PVC sheathed.

















FR PVC Twisted Pair with Screen and Armour
One pair of **stranded** conductors. Cores FR PVC insulated. Pair twisted, screened with Mylar® aluminium tape and drain wire. FR PVC bedded, steel wire armoured and FR PVC sheathed.

Stock Number			FR20	FR25	FR29	FR30	FR50	FR89	FR90	FR94	FR95
CONDUCTORS	Conductor Style		Solid		Stranded			Solid		Stranded	
	No. of Strands / Strand Diameter (mm)		1/0.8	1/1.29	16/0.2	7/0.2	23/0.2	1/0.8	1/1.29	16/0.2	23/0.2
	Total Area (mm ²)		0.5	1.3	0.5	0.22	0.75	0.5	1.3	0.5	0.75
	Total AWG (S = Stranded)		20	16	20S	24S	18S	20	16	20S	18S
	Insulation		Flame Retardant PVC		Flame Retardant PVC			Flame Retardant PVC		Flame Retardant PVC	
PAIRS	Number of Pairs		1		1			1		1	
	Laid Flat or Twisted		Twisted		Twisted			Twisted		Twisted	
	Screen*		Yes		Yes			Yes		Yes	
OVERALL	Insulation		Flame Retardant PVC		Flame Retardant PVC			Flame Retardant PVC		Flame Retardant PVC	
	Insulation Rating (°C)	Continuous	-30 to +75		-30 to +75			-30 to +75		-30 to +75	
		Short Term	—		—			—		—	
	Colour 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 (Kg/100m) (excluding reel)	4	4	5	3	7	19	30	19	22
	Diameter under Armour (mm)		—		—			5.5	7.0	5.5	6.0
	Diameter over Armour (mm)		—		—			7.5	9.0	7.5	8.0
Overall Diameter [†] (mm)		5.5	7x7	5.5	4.5	6.5	9.5	11.0	10.5	11.0	
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. Armoured for mechanical strength.		Flame Retardant. Round section. Rejects electromagnetic and electrostatic interference. Armoured 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.

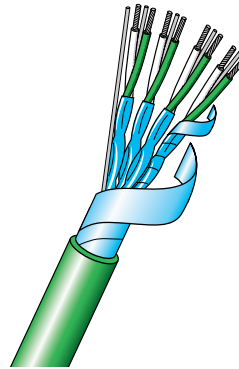
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

IEC 60584-3	Colour Codes available (other colour codes available on request)							Order Code - Example		
								Stock No.	Thermocouple Type	Colour Code
	KX	KCB	TX	JX	NX	RCA/SCA	EX	FR30	-	KX - IEC
								These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.		
ANSI MC96.1								These cables are normally available from us for immediate delivery from stock to IEC 60584-3 colour coding.		
	KX	JX	TX	NX	EX	SX	RX			

FR PVC Insulated Multipair Thermocouple Cable

7/0.2mm Non Armoured Flame Retardant PVC Insulated Multipairs -30°C to +75°C

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 7/0.2mm (0.22mm²) diameter conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC
- Meet the requirements of BS4066 Part 3/ IEC 60332.3 Category C covering tests on cables under fire conditions
- Armoured versions are also available. See page 5



Non Armoured PVC Multipair

Multipairs of stranded 7/0.2mm diameter conductors FR PVC insulated. Pairs numbered, twisted and individually screened with Mylar® aluminium tape and drainwire. Pairs laid up, overall screened with Mylar® aluminium tape with a drainwire. FR PVC sheathed.

Stock Number			M1702	M1704	M1706	M1708	M1712	M1716	M1720	M1724	M1736	M1750	
CONDUCTORS	Conductor Style		Stranded										
	No. of Strands / Strand Diameter (mm)		7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	
	Total Area (mm ²)		0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
	Total AWG (S = Stranded)		24S	24S	24S	24S	24S	24S	24S	24S	24S	24S	
	Insulation		Flame Retardant PVC										
PAIRS	Number of Pairs		2	4	6	8	12	16	20	24	36	50	
	Laid Flat or Twisted		Twisted										
	Screen*		Yes - Individually Screened Pairs										
OVERALL	Insulation		Flame Retardant PVC										
	Insulation Rating (°C)	Continuous	-30 to +75										
		Short Term	—										
	Colour Coding		Yes										
	Screen*		Yes - Collective, Overall Screen										
	Physical Properties	Abrasion Resistance		Good									
		Moisture Resistance		Very Good									
		Typical Weight (Kg/100m) (excluding reel)		7	8	13	14	23	27	32	37	52	75
	Diameter under Armour (mm)		—										
	Diameter over Armour (mm)		—										
	Overall Diameter [†] (mm)		7.8	8.1	9.7	10.5	12.8	14.3	15.9	17.2	19.8	24.5	
Notes			Individually and collectively screened. Flame retardant PVC insulated.										

* 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.

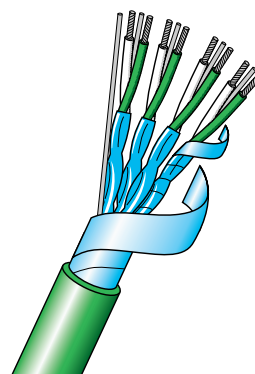
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Colour Codes available (other colour codes available on request)		Order Code - Example		
IEC 60584-3		Stock No.	Thermocouple Type	Colour Code
		M1706	- KX	- IEC
ANSI MC96.1		These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.		
		These cables are normally available from us for immediate delivery from stock to IEC 60584-3 colour coding.		

FR PVC Insulated Multipair Thermocouple Cable

16/0.2mm Non Armoured Flame Retardant PVC Insulated Multipairs -30°C to +75°C

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 16/0.2mm (0.5mm²) diameter conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC
- Meet the requirements of BS4066 Part 3/ IEC 60332.3 Category C covering tests on cables under fire conditions
- Armoured versions are also available. See page 6



Non Armoured PVC Multipair

Multipairs of stranded 16/0.2mm diameter conductors FR PVC insulated. Pairs numbered, twisted and individually screened with Mylar® aluminium tape with a drainwire. Pairs laid up, overall screened with Mylar® aluminium tape with a drainwire. FR PVC sheathed.

Stock Number		M3502	M3504	M3506	M3508	M3512	M3516	M3520	M3524	M3536	M3550
CONDUCTORS	Conductor Style	Stranded									
	No. of Strands / Strand Diameter (mm)	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2
	Total Area (mm ²)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Total AWG (S = Stranded)	20S	20S	20S	20S	20S	20S	20S	20S	20S	20S
PAIRS	Insulation	Flame Retardant PVC									
	Number of Pairs	2	4	6	8	12	16	20	24	36	50
	Laid Flat or Twisted	Twisted									
	Screen*	Yes - Individually Screened Pairs									
OVERALL	Insulation	Flame Retardant PVC									
	Insulation Rating (°C)	Continuous									
		-30 to +75									
	Short Term	—									
		—									
	Colour Coding	Yes									
	Screen*	Yes - Collective, Overall Screen									
	Physical Properties	Abrasion Resistance									
		Good									
		Moisture Resistance									
		Very Good									
	Typical Weight (Kg/100m) (excluding reel)	11	17	23	31	45	60	74	89	120	165
	Diameter under Armour (mm)	—									
	Diameter over Armour (mm)	—									
	Overall Diameter† (mm)	10.6	12.5	15.2	16.1	20.4	22.8	24.9	28.4	33.2	39.2
Notes		Individually and collectively screened. Flame retardant PVC insulated.									

* 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.

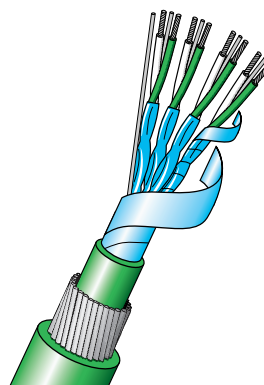
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Colour Codes available (other colour codes available on request)		Order Code - Example		
IEC 60584-3		Stock No.	Thermocouple Type	Colour Code
		M3512	- KX	- IEC
ANSI MC96.1		These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.		
		These cables are normally available from us for immediate delivery from stock to IEC 60584-3 colour coding.		

FR PVC Insulated Multipair Thermocouple Cable

7/0.2mm Armoured Flame Retardant PVC Insulated Multipairs -30°C to +75°C

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 7/0.2mm (0.22mm²) diameter conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC with stainless steel armour overall
- Meet the requirements of BS4066 Part 3/ IEC 60332.3 Category C covering tests on cables under fire conditions



Armoured PVC Multipair

Multipairs of stranded 7/0.2mm diameter conductors FR PVC insulated. Pairs numbered, twisted and individually screened with Mylar® aluminium tape with a drainwire. Pairs laid up, overall screened with Mylar® aluminium tape with a drainwire. FR PVC bedded. Steel wire armoured 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	Conductor Style	Stranded									
	No. of Strands / Strand Diameter (mm)	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2
	Total Area (mm ²)	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
	Total AWG (S = Stranded)	24S	24S	24S	24S	24S	24S	24S	24S	24S	24S
PAIRS	Insulation	Flame Retardant PVC									
	Number of Pairs	2	4	6	8	12	16	20	24	36	50
	Laid Flat or Twisted	Twisted									
OVERALL	Screen*	Yes - Individually Screened Pairs									
	Insulation	Flame Retardant PVC									
	Insulation Rating (°C)	Continuous									
		-30 to +75									
	Short Term	—									
		—									
	Colour Coding	Yes									
	Screen*	Yes - Collective, Overall Screen									
	Physical Properties	Abrasion Resistance									
		Good									
		Moisture Resistance									
	Typical Weight (Kg/100m) (excluding reel)	Very Good									
		31	34	42	45	59	68	76	85	105	140
	Diameter under Armour (mm)	7.6	8.3	9.7	10.5	12.4	13.9	15.3	16.6	19.0	22.6
	Diameter over Armour (mm)	9.4	10.1	11.5	12.4	14.2	15.7	17.1	18.4	21.8	24.4
	Overall Diameter† (mm)	12.6	13.3	14.7	15.5	18.0	19.7	21.1	22.4	24.8	28.4
Notes		Individually and collectively screened. Flame retardant PVC insulated.									

* 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.

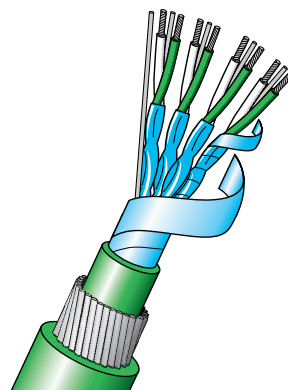
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Colour Codes available (other colour codes available on request)		Order Code - Example		
IEC 60584-3		Stock No.	Thermocouple Type	Colour Code
		M1702/SWA	- KX	- IEC
ANSI MC96.1		These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.		
		These cables are normally available from us for immediate delivery from stock to IEC 60584-3 colour coding.		

FR PVC Insulated Multipair Thermocouple Cable

16/0.2mm Armoured Flame Retardant PVC Insulated Multipairs -30°C to +75°C

- Extremely useful where there is a need to run a number of thermocouple signals back to instrumentation
- 16/0.2mm diameter (0.5mm²) conductors with an individual and collective screen. Cores, bedding and overall sheath in flame retardant PVC with stainless steel armour overall
- Meet the requirements of BS4066 Part 3/ IEC 60332.3 Category C covering tests on cables under fire conditions



Armoured PVC Multipair

Multipairs of stranded 16/0.2mm diameter conductors FR PVC insulated. Pairs numbered, twisted and individually screened with Mylar® aluminium tape with a drainwire. Pairs laid up, overall screened with Mylar® aluminium tape with a drainwire. FR PVC bedded. Steel wire armoured 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	Conductor Style	Stranded										
	No. of Strands / Strand Diameter (mm)	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	
	Total Area (mm ²)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Total AWG (S = Stranded)	20S	20S	20S	20S	20S	20S	20S	20S	20S	20S	
	Insulation	Flame Retardant PVC										
PAIRS	Number of Pairs	2	4	6	8	12	16	20	24	36	50	
	Laid Flat or Twisted	Twisted										
	Screen*	Yes - Individually Screened Pairs										
OVERALL	Insulation	Flame Retardant PVC										
	Insulation Rating (°C)	Continuous										
		-30 to +75										
	Insulation Rating (°C)	Short Term										
		—										
	Colour Coding	Yes										
	Screen*	Yes - Collective, Overall Screen										
	Physical Properties	Abrasion Resistance	Good									
		Moisture Resistance	Very Good									
Typical Weight (Kg/100m) <small>(excluding reel)</small>		35	55	68	84	112	145	168	207	265	347	
Diameter under Armour (mm)		10.6	12.5	15.2	16.1	20.4	22.8	24.9	28.4	33.2	39.2	
Diameter over Armour (mm)		11.9	15.0	17.7	19.3	23.6	26.0	28.1	32.4	37.2	44.2	
Overall Diameter [†] (mm)		14.7	18.0	20.9	22.5	27.2	29.6	31.9	36.4	41.4	48.8	
Notes		Individually and collectively screened. Flame retardant PVC insulated.										

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

Colour Codes available (other colour codes available on request)		Order Code - Example		
IEC 60584-3		Stock No.	Thermocouple Type	Colour Code
		M3502/SWA	- KX	- IEC
ANSI MC96.1		These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.		
		These cables are normally available from us for immediate delivery from stock to IEC 60584-3 colour coding.		



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