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

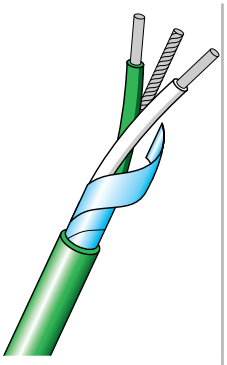
Heat Resistant PVC cables also available - request our separate datasheet

TC Ltd for Temperature Sensing, Measurement and Control

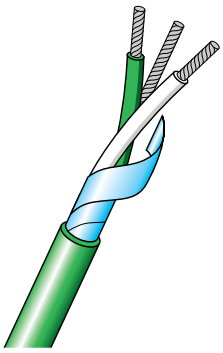
FR PVC Insulated Single Pair Thermocouple Cable

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

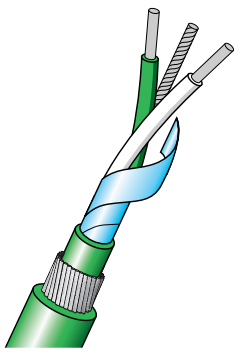
- Excellent properties for the reduced propagation of flame by incorporation of flame retardant (FR) PVC compounds
- Suitable for situations where there is a risk of fire
- The Oxygen Index Value of the overall sheath is typically not less than 30% in accordance with ISO 4589 which allow fire resistance properties



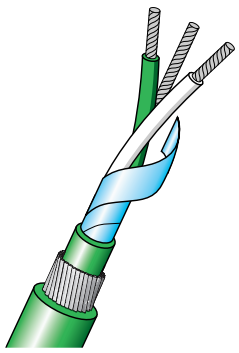
FR PVC Twisted Pair with Screen
One pair of **solid** conductors. Cores FR PVC insulated. Pair twisted, screened with Mylar aluminium tape and drain wire. FR PVC sheathed overall.



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.

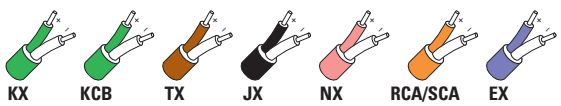
	Stock Number		**FR20**	**FR25**	**FR29**	**FR30**	**FR50**	**FR89**	**FR90**	**FR94**	**FR95**
CONDUCTORS	**Conductor Style**		**Solid**		**Stranded**			**Solid**		**Stranded**	
	No. of Strands / Strand Diameter (mm)		**1/0.8**	**1/1.29**	**16/0.2**	**7/0.2**	**23/0.2**	**1/0.8**	**1/1.29**	**16/0.2**	**23/0.2**
	Total Area (mm²)		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.

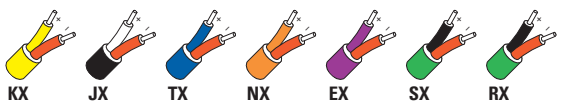
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Colour Codes available (other colour codes available on request)

IEC 60584-3



ANSI MC96.1



Order Code - Example

Stock No.		Thermocouple Type		Colour Code
FR30	-	**KX**	-	**IEC**

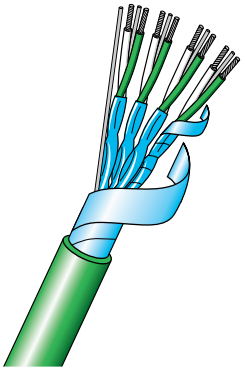
These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.

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 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
- 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.

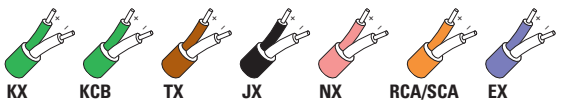
	Stock Number	M1702	M1704	M1706	M1708	M1712	M1716	M1720	M1724	M1736	M1750
CONDUCTORS	Conductor Style	Stranded									
	No. of Strands / Strand Diameter (mm)	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2
	Total Area (mm²)	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
	Total AWG (S = 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									
	Insulation Rating (°C) — Short Term	—									
	Colour Coding	Yes									
	Screen*	Yes - Collective, Overall Screen									
	Physical Properties — Abrasion Resistance	Good									
	Physical Properties — Moisture Resistance	Very Good									
	Physical Properties — 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)

IEC 60584-3



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Order Code - Example

Stock No.		Thermocouple Type		Colour Code
M1706	-	KX	-	IEC

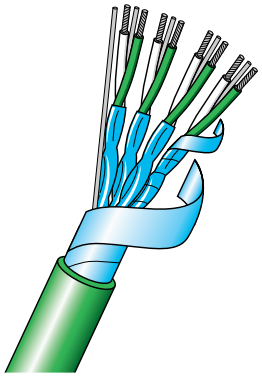
These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.

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
- 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.

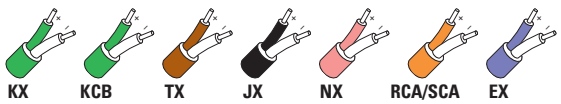
			Stock Number	M3502	M3504	M3506	M3508	M3512	M3516	M3520	M3524	M3536	M3550
CONDUCTORS	Conductor Style			Stranded									
	No. of Strands / Strand Diameter (mm)			16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2
	Total Area (mm²)			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Total AWG (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									
		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.

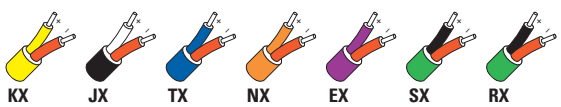
The cable constructions can also be manufactured to any other colour coding requirement that you may have, but might be subject to a minimum ordering quantity. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Colour Codes available (other colour codes available on request)

IEC 60584-3



ANSI MC96.1



Order Code - Example

Stock No.		Thermocouple Type		Colour Code
M3512	-	KX	-	IEC

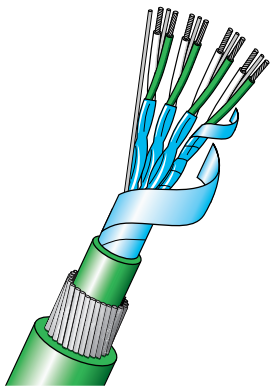
These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.

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



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.

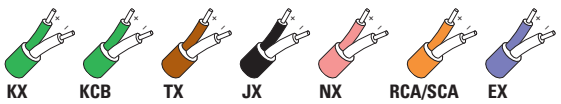
	Stock Number	M1702/SWA	M1704/SWA	M1706/SWA	M1708/SWA	M1712/SWA	M1716/SWA	M1720/SWA	M1724/SWA	M1736/SWA	M1750/SWA
CONDUCTORS	Conductor Style	Stranded									
	No. of Strands / Strand Diameter (mm)	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2	7/0.2
	Total Area (mm²)	0.22	0.22	0.22	0.22	0.22	0.22	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									
	Insulation Rating (°C) — Short Term	—									
	Colour Coding	Yes									
	Screen*	Yes - Collective, Overall Screen									
	Physical Properties — Abrasion Resistance	Good									
	Physical Properties — Moisture Resistance	Very Good									
	Typical Weight (Kg/100m) (excluding reel)	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)

IEC 60584-3



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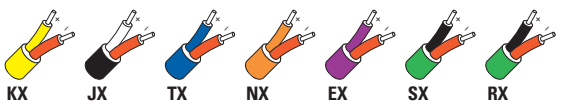


Order Code - Example

Stock No.		Thermocouple Type		Colour Code
M1702/SWA	-	KX	-	IEC

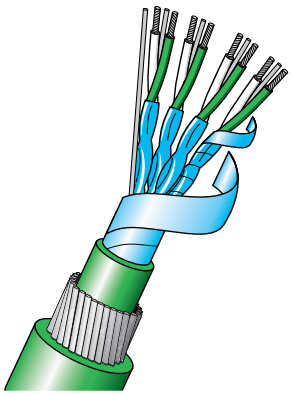
These cables are available for Thermocouple Types: KX, KCB, JX, TX, NX, EX, RCA or SCA. Other less popular thermocouple types are available on request.

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



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.

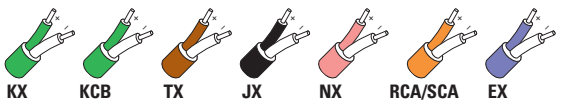
			M3502/SWA	M3504/SWA	M3506/SWA	M3508/SWA	M3512/SWA	M3516/SWA	M3520/SWA	M3524/SWA	M3536/SWA	M3550/SWA
	Stock Number											
CONDUCTORS	**Conductor Style**		**Stranded**									
	No. of Strands / Strand Diameter (mm)		16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2	16/0.2
	Total Area (mm²)		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									
		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)	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)

IEC 60584-3



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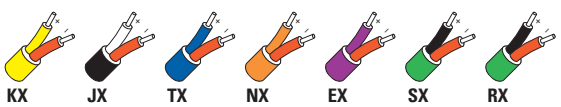

Order Code - Example

Stock No.		Thermocouple Type		Colour Code
M3502/SWA	**-**	**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.

These cables are normally available from us for **immediate** delivery from stock to IEC 60584-3 colour coding.

Notes

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Issue Number: 0724

TC Ltd for Temperature Sensing, Measurement and Control