RTD Cables for use with Resistance Thermometers

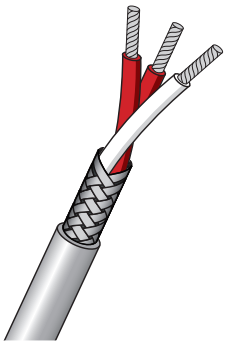
A range of cables for use with RTD Sensors in PVC, PFA, Fibreglass and MICA insulation available from stock for immediate delivery

TC Ltd for Temperature Sensing, Measurement and Control

RTD (Resistance Thermometer) Cables

PVC Insulated RTD Cables -30°C to +105°C

- 2, 3, 4, 6 or 8 cores of 7/0.2mm or 13/0.2mm diameter twisted conductors PVC insulated with tinned copper braid and overall PVC sheath for use up to 105°C
- Cores colour coded:-
  2 core: 1 cores red and 1 core white
  3 core: 2 cores red and 1 core white
  4 core: 2 cores red and 2 cores white
  6 core: 4 cores red and 2 cores white
  8 core: 4 cores red and 4 cores white
  Outer sheath: Grey
- Ideal for general purpose applications



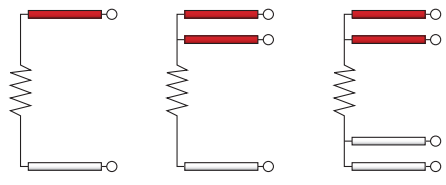
Heat Resistant PVC Insulated with Metal Braid
Cores of stranded copper conductors. Cores heat resistant PVC insulated. Cores bunched together. Tinned copper wire braided. heat resistant PVC sheathed overall.

	Stock Number	RP27	RP37	RP47	RP67	RP87	RP33	RP43
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	13/0.2	13/0.2
	Total Area (mm²)	0.22	0.22	0.22	0.22	0.22	0.44	0.44
	Total AWG (S = Stranded)	24S	24S	S24	S24	24S	21S	21S
	Insulation	Heat Resistant PVC						
CORES	Number of Cores	2	3	4	6	8	3	4
	Laid Flat or Twisted	Twisted						
	Screen*	Yes						
OVERALL	Insulation	Heat Resistant PVC						
	Insulation Rating (°C) — Continuous	-30 to +105						
	Insulation Rating (°C) — Short Term	—						
	Colour Coding	Yes						
	Physical Properties — Abrasion Resistance	Good						
	Physical Properties — Moisture Resistance	Very Good						
	Physical Properties — Typical Weight (Kg/100m) (excluding reel)	2	2	3	4	8	8	10
	Diameter under Armour (mm)	—						
	Diameter over Armour (mm)	—						
	Overall Diameter† (mm)	4	4	5	6	7	5	6
	Notes	Ideal for general use in normal ambient applications. Rejects electromagnetic and electrostatic interference. Round section.						

* Where cables incorporate a metal braid, the braid can be used as a screen.
† These values are nominal and if critical to your application, please request a physical check.

The above cables where applicable have cores which are colour coded in accordance with IEC 60751:2008 and BS EN 60751.
These cables are normally available from us for immediate delivery from stock.
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 (as per IEC 60751)



2 wire 3 wire 4 wire

Order Code - Example

Stock No.
RP37

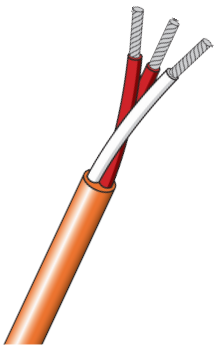
These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

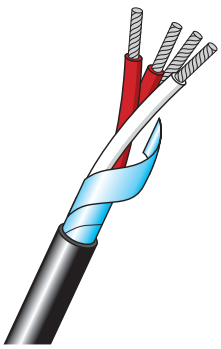
RTD (Resistance Thermometer) Cables

PFA Insulated RTD Cables -75°C to +250°C

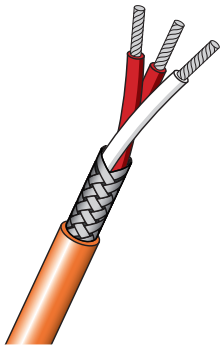
- 2, 3, 4, 6 or 8 cores of 7/0.2mm diameter twisted conductors overall PFA sheath for use up to 250°C. Tinned copper braid and Mylar® aluminium tape screen option.
- Cores colour coded:-
  2 core: 1 cores red and 1 core white
  3 core: 2 cores red and 1 core white
  4 core: 2 cores red and 2 cores white
  6 core: 4 cores red and 2 cores white
  8 core: 4 cores red and 4 cores white
- Ideal for general purpose applications



PFA Insulated
Cores of stranded copper conductors. Cores PFA insulated and bunched together. PFA sheathed overall.



PFA Insulated with Screen
Cores of stranded copper conductors. PFA extruded, bunched together and screened with Mylar aluminium tape and drain wire. PFA sheathed overall.



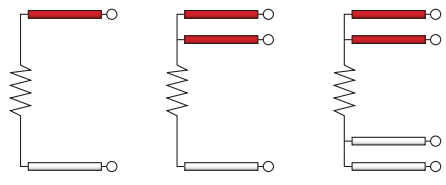
PFA Insulated with Metal Braid
Cores of stranded copper conductors. Cores PFA insulated. Cores bunched together. Nickel plated copper wire braided. PFA sheathed overall.Orange outer sheath (also available with a black outer, please suffix order code with a 'B' e.g. RT37B).

	Stock Number	**RT38**	**RT48**	**RT39**	**RT49**	**RT69**	**RT27**	**RT37**	**RT47**	**RT67**	**RT82**	**RT87**
CONDUCTORS	**Conductor Style**	**Stranded**		**Stranded**			**Stranded**					
	No. of Strands / Strand Diameter (mm)	**7/0.2**	**7/0.15**	**7/0.1**	**7/0.1**	**7/0.1**	**7/0.2**	**7/0.2**	**7/0.2**	**7/0.2**	**7/0.1**	**7/0.2**
	Total Area (mm²)	0.22	0.124	0.05	0.05	0.05	0.22	0.22	0.22	0.22	0.05	0.22
	Total AWG (S = Stranded)	24S	26S	30S	30S	30S	24S	24S	24S	24S	30S	24S
	Insulation	PFA		PFA			PFA					
CORES	**Number of Cores**	**3**	**4**	**3**	**4**	**6**	**2**	**3**	**4**	**6**	**8**	**8**
	Laid Flat or Twisted	Twisted		Twisted			Twisted					
	Screen*	No		Yes			Yes					
OVERALL	**Insulation**	Thin PFA		PFA			PFA					
	Insulation Rating (°C) Continuous	-75 to +250		-75 to +250			-75 to +250					
	Insulation Rating (°C) Short Term	+300		+300			+300					
	Colour Coding	Yes		Yes			Yes					
	Physical Properties Abrasion Resistance	Good		Very Good			Very Good					
	Physical Properties Moisture Resistance	Good		Very Good			Very Good					
	Typical Weight (Kg/100m) (excluding reel)	1	2	1	1.1	1.5	3	2	2	3	3	5
	Diameter under Armour (mm)	—		—			—					
	Diameter over Armour (mm)	—		—			—					
	Overall Diameter† (mm)	2.1	2.1	2.2	2.6	2.8	3	3	3	4	3	5
	Notes	Round section. Rejects electromagnetic interference.		Rejects electromagnetic interference.			Gas, steam and water tight insulation. Rejects electromagnetic and electrostatic interference. Round section.					

* Aluminised Mylar® tape in contact throughout by a bare 7/0.3mm diameter tinned copper drainwire. Where cables incorporate a metal braid, the braid can be used as a screen.
† These values are nominal and if critical to your application, please request a physical check.

The above cables where applicable have cores which are colour coded in accordance with IEC 60751:2008 and BS EN 60751.
These cables are normally available from us for immediate delivery from stock.
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 (as per IEC 60751)



Order Code - Example

Stock No.
RT37

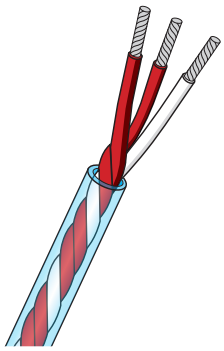
These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

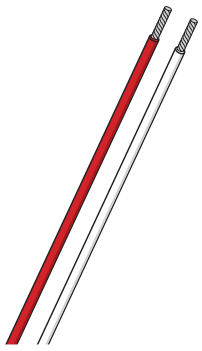
RTD (Resistance Thermometer) Cables

Other PFA Insulated RTD Cables -75°C to +250°C

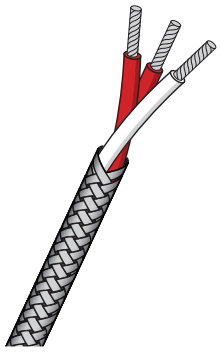
- 1, 3, 4 or 6 cores of PFA insulated cables for use up to 250°C.
- Cores colour coded:-
  3 core: 2 cores red and 1 core white
  4 core: 2 cores red and 2 cores white
  6 core: 4 cores red and 2 cores white
  8 core: 4 cores red and 4 cores white
- Ideal for general purpose applications



PFA / Silicone Rubber Insulated
Cores of **stranded** copper conductors. Cores PFA insulated. Cores bunched together. Silicone Rubber sheathed overall.



PFA 'single'
One core of **stranded** copper conductor PFA insulated. Red or White available.



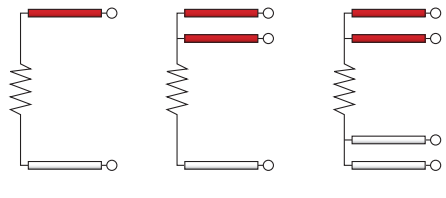
PFA Insulated with Stainless Steel Braid
Cores of **stranded** copper conductors, PFA insulated and bunched together with overall stainless steel braid.

	Stock Number	RS37	RS47	RS67	RS87	TEF7R	TEF7W	TEF2R	TEF2W	RT32/SSB	RT37/SSB
CONDUCTORS	Conductor Style	Stranded				Stranded		Solid		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	1/0.2	1/0.2	7/0.1	7/0.2
	Total Area (mm²)	0.22	0.22	0.22	0.22	0.22	0.22	0.03	0.03	0.05	0.22
	Total AWG (S = Stranded)	24S	24S	24S	24S	24S	24S	32	32	30S	24S
	Insulation	PFA				PFA				PFA	
CORES	Number of Cores	3	4	6	8	1	1	1	1	3	3
	Laid Flat or Twisted	Twisted				—				Twisted	
	Screen*	No				No				Yes	
OVERALL	Insulation	Silicone Rubber				PFA				PFA	
	Insulation Rating (°C) Continuous	-40 to +200				-75 to +250				-75 to +250	
	Insulation Rating (°C) Short Term	-50 to +250				+300				+300	
	Colour Coding	Yes				Red	White	Red	White	Yes	
	Physical Properties: Abrasion Resistance	Good				Very Good				Very Good	
	Physical Properties: Moisture Resistance	Very Good				Very Good				Very Good	
	Typical Weight (Kg/100m) (excluding reel)	2	3	3	4	<1	<1	<1	<1	1	2
	Diameter under Armour (mm)	—				—				—	
	Diameter over Armour (mm)	—				—				—	
	Overall Diameter† (mm)	4	4	5	5	<1	<1	<1	<1	2	2.6
	Notes	Gas, steam and water tight insulation. Rejects electromagnetic and electrostatic interference. Round section.				Ideal for use in sensor manufacture or for short extensions.				Rejects electromagnetic and electrostatic interference. Round section.	

* Where cables incorporate a metal braid, the braid can be used as a screen.
† These values are nominal and if critical to your application, please request a physical check.

The above cables where applicable have cores which are colour coded in accordance with IEC 60751:2008 and BS EN 60751.
These cables are normally available from us for immediate delivery from stock.
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 (as per IEC 60751)



Order Code - Example

Stock No.
RT32/SSB

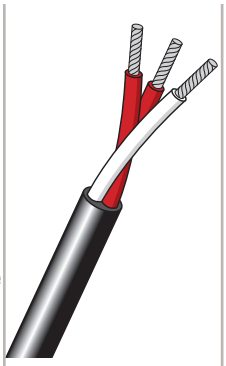
These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

RTD (Resistance Thermometer) Cables

Silicon Rubber Insulated Cables -40°C to +200°C

- 3 cores of 7/0.2mm diameter twisted conductors silicone rubber insulated with silicone rubber overall.
- Cores colour coded:-
  3 core: 2 cores red and 1 core white
- Ideal for use in general applications, autoclaves and industrial environments where the cable is subjected to continuous static curves and bends

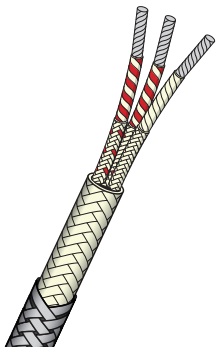


Silicone Rubber Insulated
Cores of stranded copper conductors. Cores Silicone insulated. Cores Twisted together. Silicone rubber sheathed overall.

	Stock Number		R37/SR
CONDUCTORS	Conductor Style		Stranded
	No. of Strands / Strand Diameter (mm)		7/0.2
	Total Diameter (mm)		0.5
	Total Area (mm^2)		0.22
	Total AWG (S = Stranded)		24S
	Insulation		Silicone Rubber
CORES	Number of Cores		3
	Laid Flat or Twisted		Twisted
	Screen*		No
OVERALL	Insulation		Silicone Rubber
	Insulation Rating (°C)	Continuous	-40 to +200
		Short Term	-50 to +250
	Colour Coding		Yes
	Physical Properties	Abrasion Resistance	Good
		Moisture Resistance	Very Good
		Typical Weight (Kg/100m) (excluding reel)	2
	Diameter under Armour (mm)		—
	Diameter over Armour (mm)		—
	Overall Diameter† (mm)		4
	Notes		Highly flexible, flame retardant, good resistance to lubricating oils, round section.

Fibreglass Insulated RTD Cables -60°C to +480°C

- 3, 4, or 6 cores of 7/0.2mm diameter bunched conductors fibreglass with fibreglass overall with a stainless steel braid overall.
- Cores colour coded:-
  3 core: 2 cores red and 1 core white
  4 core: 2 cores red and 2 cores white
  6 core: 4 cores red and 2 cores white
- Suitable for use at normal air ambient temperatures where there is a possibility of a hot spot which might damage lower rated cables such as PVC or PFA



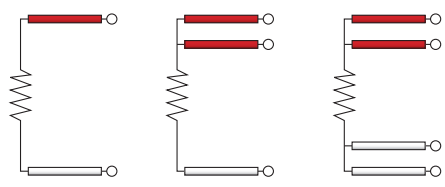
Fibreglass Insulated with Stainless Steel Braid
Cores of stranded copper conductors. Cores double glass lapped, glass fibre braided and varnished. Cores bunched together, glass fibre braided overall and impregnated with silicone varnish. Stainless steel braid overall.

	Stock Number		RF37	RF47	RF67
CONDUCTORS	Conductor Style		Stranded		
	No. of Strands / Strand Diameter (mm)		7/0.2	7/0.2	7/0.2
	Total Diameter (mm)		0.5	0.5	0.5
	Total Area (mm^2)		0.22	0.22	0.22
	Total AWG (S = Stranded)		24S	24S	24S
	Insulation		Fibreglass		
CORES	Number of Cores		3	4	6
	Laid Flat or Twisted		Twisted		
	Screen*		Yes		
OVERALL	Insulation		Fibreglass		
	Insulation Rating (°C)	Continuous	+480		
		Short Term	+540		
	Colour Coding		Yes		
	Physical Properties	Abrasion Resistance	Good		
		Moisture Resistance	None		
		Typical Weight (Kg/100m) (excluding reel)	2	3	4
	Diameter under Armour (mm)		—		
	Diameter over Armour (mm)		—		
	Overall Diameter† (mm)		3	4	5
	Notes		Above 180°C the integrity of the cable is maintained to the upper insulation rating limit provided the cable is not flexed particularly when cold.		

* Where cables incorporate a metal braid, the braid can be used as a screen.
† These values are nominal and if critical to your application, please request a physical check.

The above cables where applicable have cores which are colour coded in accordance with IEC 60751:2008 and BS EN 60751.
These cables are normally available from us for immediate delivery from stock.
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 (as per IEC 60751)



Order Code - Example

Stock No.
RF37

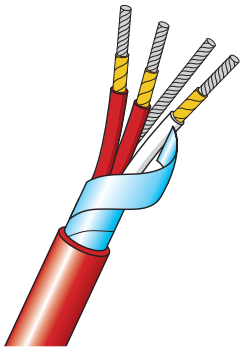
These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

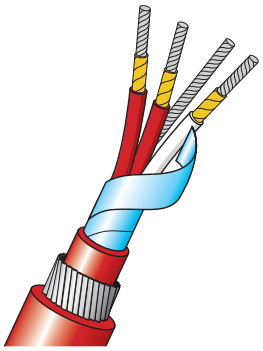
RTD (Resistance Thermometer) Cables

XLPE Insulated Twisted with Screen (LSOH) -30°C to +75°C

- 3 or 6 cores of 7/0.3mm diameter twisted conductors. The cable incorporates a high temperature rated MICA glass tape with a XLPE (Cross Linked Polyethylene) insulation on the cores and Low Smoke Zero Halogen material on the bedding and/or outer sheath
- Sheathing materials are Halogen free
- Essential for situations where it is of strategic importance to ensure that the cable continues to function during a major crisis involving fire



MICA Glass / XLPE / LSOH with Screen
Cores of **stranded** copper conductors, MICA glass taped and XLPE insulated. Cores bunched and screened with Mylar® aluminium tape and drain wire. LSOH sheathed overall.



MICA Glass / XLPE / LSOH with Screen and Armour
Cores of **stranded** copper conductors, MICA glass taped and XLPE insulated. Cores bunched and screened with Mylar® aluminium tape and drain wire. LSOH sheathed. Steel wire armoured and LSOH sheathed overall.

	Stock Number	RM37	RM67	RM37/SWA	RM67/SWA
CONDUCTORS	Conductor Style	Stranded		Stranded	
	No. of Strands / Strand Diameter (mm)	7/0.3	7/0.3	7/0.3	7/0.3
	Total Area (mm^2)	0.5	0.5	0.5	0.5
	Total AWG (S = Stranded)	20S	20S	20S	20S
	Insulation	MICA and XLPE		MICA and XLPE	
CORES	Number of Cores	3	6	3	6
	Laid Flat or Twisted	Twisted		Twisted	
	Screen*	Yes		Yes	
OVERALL	Insulation	LSOH		LSOH	
	Insulation Rating (°C) – Continuous	-30 to +75		-30 to +75	
	Insulation Rating (°C) – Short Term	+750		+750	
	Colour Coding	Yes		Yes	
	Physical Properties – Abrasion Resistance	Good		Good	
	Physical Properties – Moisture Resistance	Very Good		Very Good	
	Physical Properties – Typical Weight (Kg/100m) (excluding reel)	10	13	32	50
	Diameter under Armour (mm)	—		8	11
	Diameter over Armour (mm)	—		10	13
	Overall Diameter† (mm)	8	11	13	16
	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. 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.

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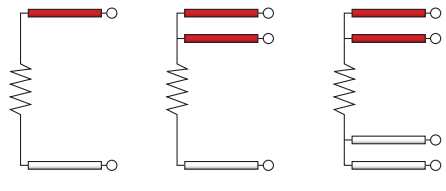
Colour Codes (as per IEC 60751)



2 wire 3 wire 4 wire

Order Code - Example

Stock No.
RM37

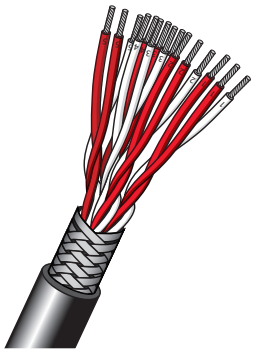
These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

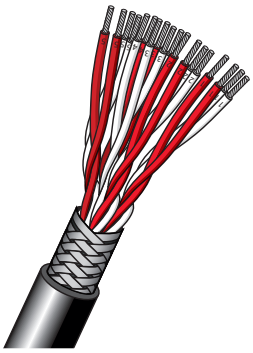
RTD (Resistance Thermometer) Cables

PVC Insulated Multi Triads and Multi Quads RTD Cables -30°C to +105°C

- Incorporates Heat Resistant (HR) PVC suitable for use in the temperature range -30°C to +105°C
- Extremely useful where there is a need to run a number of RTD signals back to instrumentation
- 7/0.2mm (0.22mm²) diameter conductors PVC insulated and grouped in triads or quads with overall copper wire braid and overall PVC sheath



Multi Triad PVC Insulated
Triads of stranded copper conductors. Triads HR PVC insulated. Triads bunched together and numbered. Tinned copper wire braided. HR PVC sheathed overall.



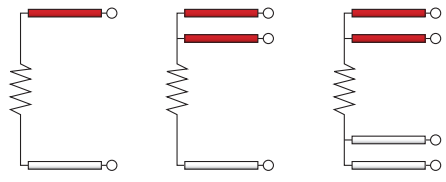
Multi Quad PVC Insulated
Quads of stranded copper conductors. Quads HR PVC insulated. Quads bunched together and numbered. Tinned copper wire braided. HR PVC sheathed overall.

	Stock Number	MT3705	MT3710	MT3715	MT4705	MT4710	MT4715
CONDUCTORS	Conductor Style	Stranded			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
	Total Area (mm²)	0.22	0.22	0.22	0.22	0.22	0.22
	Total AWG (S = Stranded)	24S	24S	24S	24S	24S	24S
	Insulation	Heat Resistant PVC			Heat Resistant PVC		
CORES	Number of Cores	5 x 3	10 x 3	15 x 3	5 x 4	10 x 4	15 x 4
	Laid Flat or Twisted	Twisted			Twisted		
	Screen*	Yes			Yes		
OVERALL	Insulation	Heat Resistant PVC			Heat Resistant PVC		
	Insulation Rating (°C) — Continuous	-30 to +105			-30 to +105		
	Insulation Rating (°C) — Short Term	—			—		
	Colour Coding	Yes			Yes		
	Physical Properties — Abrasion Resistance	Good			Good		
	Physical Properties — Moisture Resistance	Very Good			Very Good		
	Physical Properties — Typical Weight (Kg/100m) (excluding reel)	13	22	29	16	27	38
	Diameter under Armour (mm)	—			—		
	Diameter over Armour (mm)	—			—		
	Overall Diameter† (mm)	10	13	15	11	15	17
	Notes	Rejects electromagnetic and electrostatic interference. Round section.			Rejects electromagnetic and electrostatic interference. Round section.		

* Where cables incorporate a metal braid, the braid can be used as a screen.
† These values are nominal and if critical to your application, please request a physical check.

The above cables where applicable have cores which are colour coded in accordance with IEC 60751:2008 and BS EN 60751.
These cables are normally available from us for immediate delivery from stock.
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 (as per IEC 60751)



Order Code - Example

Stock No.
MT3705

These cables are for use with RTD Resistance Thermometers.

These cables are normally available from us for **immediate** delivery from stock to IEC 60751 colour coding.

PO Box 130
Uxbridge
UB8 2YS
United Kingdom
Tel: 01895 252222
International: +44 1895 252222
Email: info@tc.co.uk
Web: www.tc.co.uk

Issue Number: 0324

TC Ltd for Temperature Sensing, Measurement and Control