



## RTD (Resistance Thermometer) Wire

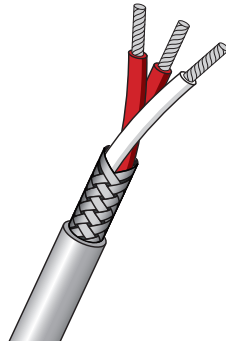


**A range of wire for use with RTD Sensors in PVC, PFA, Fiberglass and MICA insulation available from stock for immediate delivery**

# RTD (Resistance Thermometer) Wire

## PVC Insulated RTD Wire -30°C to +105°C

- 2, 3, 4, 6 or 8 cores of 24 or 20 AWG diameter twisted conductors PVC insulated with tinned copper braid and overall PVC sheath for use up to 220°F
- Cores color 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	
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	7x32	7x32	7x32	7x32	13x32	13x32	
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S	24S	24S	21S	21S	
	Total Area (mm <sup>2</sup> )	0.22	0.22	0.22	0.22	0.22	0.44	0.44	
	Insulation	Heat Resistant PVC							
<b>CORES</b>	Number of Pairs	2	3	4	6	8	3	4	
	Conductor Configuration	Twisted							
	Shielded*	Yes							
<b>OVERALL</b>	Insulation	Heat Resistant PVC							
	Insulation Rating (°F)	Continuous	-22 to +220						
		Short Term	—						
	Color Coding	Yes							
	Physical Properties	Abrasion Resistance	Good						
		Moisture Resistance	Very Good						
		Typical Weight (lbs/1000ft) (excluding reel)	14	14	21	28	55	55	68
	Diameter under Armor (inches)	—							
Diameter over Armor (inches)	—								
Overall Diameter† (inches)	0.16"	0.16"	0.20"	0.24"	0.28"	0.20"	0.24"		
<b>Notes</b>	Ideal for general use in normal ambient applications. Rejects electromagnetic and electrostatic interference. Round section.								

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

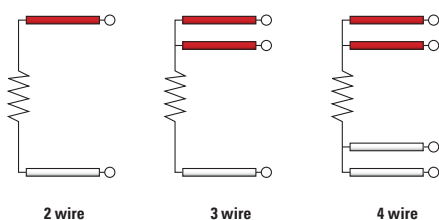
† These values are nominal and if critical to your application, please request a physical check.

The above wire where applicable have cores which are color coded in accordance with IEC 60751:2008 and BS EN 60751.

These wire 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.

### Color Codes (as per IEC 60751)



### Order Code - Example

Stock No.

**RP37**

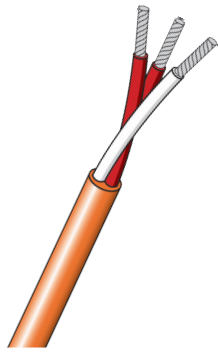
These wire are for use with RTD Resistance Thermometers.

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

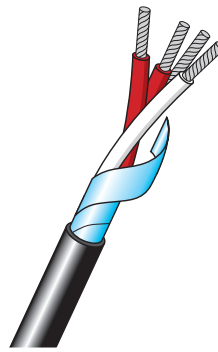
# RTD (Resistance Thermometer) Wire

## PFA Insulated RTD Wire -100°F to +480°F

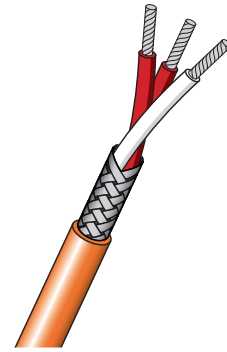
- 2, 3, 4, 6 or 8 cores of twisted conductors overall PFA sheath for use up to 480°F. Tinned copper braid and Mylar® aluminium tape shield option.
- Cores color coded:-  
2 core: 1 cores red and 1 core white  
3 core: 2 cores red and 1 core white  
4 core: 2 cores red and 2 cores white  
6 core: 4 cores 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 Shield**  
Cores of stranded copper conductors. PFA extruded, bunched together and shielded 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	
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	7x36	7x29	7x29	7x29	7x32	7x32	7x32	7x32	7x29	7x32	
	Total Wire Size - AWG (S = Stranded)	24S	26S	30S	30S	30S	24S	24S	24S	24S	30S	24S	
	Total Area (mm <sup>2</sup> )	0.22	0.124	0.05	0.05	0.05	0.22	0.22	0.22	0.22	0.05	0.22	
	Insulation	PFA			PFA			PFA					
<b>CORES</b>	Number of Pairs	3	4	3	4	6	2	3	4	6	8	8	
	Conductor Configuration	Twisted			Twisted			Twisted					
	Shielded*	No			Yes			Yes					
<b>OVERALL</b>	Insulation	Thin PFA			PFA			PFA					
	Insulation Rating (°F)	Continuous	-100 to +480			-100 to +480			-100 to +480				
		Short Term	+570			+570			+570				
	Color Coding	Yes			Yes			Yes					
	Physical Properties	Abrasion Resistance	Good			Very Good			Very Good				
		Moisture Resistance	Good			Very Good			Very Good				
		Typical Weight (lbs/1000ft) (excluding reel)	7	14	7	8	11	21	14	14	21	21	34
	Diameter under Armor (inches)	—			—			—					
Diameter over Armor (inches)	—			—			—						
Overall Diameter† (inches)	0.08"	0.08"	0.09"	0.10"	0.11"	0.12"	0.12"	0.12"	0.16"	0.12"	0.20"		
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 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.

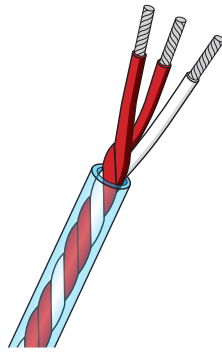
The above wire where applicable have cores which are color coded in accordance with IEC 60751:2008 and BS EN 60751. These wire are normally available from us for immediate delivery from stock. If you have any specific requirements regarding cable lengths please let us know so that we may make a satisfactory offer to meet your needs.

Color Codes (as per IEC 60751)	Order Code - Example
<p>2 wire      3 wire      4 wire</p>	<p>Stock No.</p> <p><b>RT37</b></p> <p>These wire are for use with RTD Resistance Thermometers.</p> <p>These wire are normally available from us for <b>immediate</b> delivery from stock to IEC 60751 color coding.</p>

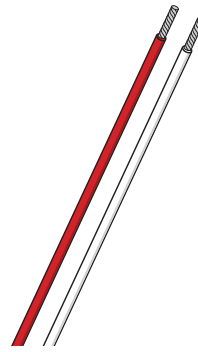
# RTD (Resistance Thermometer) Wire

## Other PFA Insulated RTD Wire -100°F to +390°F

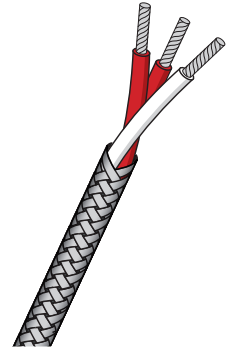
- 1, 3, 4 or 6 cores of PFA insulated wire for use up to 390°F.
- Cores color coded:-
  - 3 core: 2 cores red and 1 core white
  - 4 core: 2 cores red and 2 cores white
  - 6 core: 4 cores red and 2 cores white
  - 8 core: 4 cores red and 4 cores white
  - Outer sheath: Orange
- Ideal for general purpose 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
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	7x32	7x32	7x32	7x32
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S	24S	24S
	Total Area (mm <sup>2</sup> )	0.22	0.22	0.22	0.22	0.22
	Insulation	PFA				
<b>CORES</b>	Number of Pairs	3	4	6	8	
	Conductor Configuration	Twisted				
	Shielded*	No				
<b>OVERALL</b>	Insulation	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)	14	21	21	28
	Diameter under Armor (inches)	—				
	Diameter over Armor (inches)	—				
Overall Diameter† (inches)	0.16"	0.16"	0.20"	0.20"		
<b>Notes</b>		Gas, steam and water tight insulation. Rejects electromagnetic and electrostatic interference. Round section.				

TEF7R	TEF7W	TEF2R	TEF2W
7x32	7x32	7x32	7x32
24S	24S	24S	24S
0.22	0.22	0.03	0.03
PFA			
1	1	1	1
—			
No			
PFA			
-100 to +480			
+570			
Red	White	Red	White
Very Good			
Very Good			
<7	<7	<7	<7
—			
—			
<0.04"	<0.04"	<0.04"	<0.04"
Ideal for use in sensor manufacture or for short extensions.			

RT32/SSB	RT37/SSB
7x28	7x32
30S	24S
0.05	0.22
PFA	
3	3
Twisted	
Yes	
PFA	
-100 to +480	
+570	
Yes	
Very Good	
Very Good	
7	14
—	
—	
0.08"	0.1"
Rejects electromagnetic and electrostatic interference. Round section.	

\* 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 above wire where applicable have cores which are color coded in accordance with IEC 60751:2008 and BS EN 60751. These wire 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.

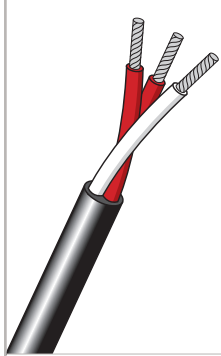
Color Codes (as per IEC 60751)	Order Code - Example
<p>2 wire      3 wire      4 wire</p>	<p>Stock No.</p> <p><b>RT32/SSB</b></p> <p>These wire are for use with RTD Resistance Thermometers.</p> <p>These wire are normally available from us for <b>immediate</b> delivery from stock to IEC 60751 color coding.</p>

# RTD (Resistance Thermometer) Wire

## Silicon Rubber Insulated Cables -40°F to +390°F

## Fiberglass Insulated RTD Wire -76°F to +870°F

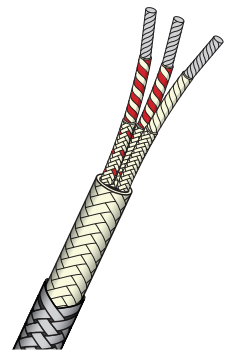
- 3 cores of 24AWG diameter twisted conductors silicone rubber insulated with silicone rubber overall.
- Cores color coded:-  
3 core: 2 cores red and 1 core white
- Ideal for use in general applications, autoclaves and industrial environments where the cable is subjected to continuous static curves and bends



### Silicone Rubber Insulated

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

- 3, 4, or 6 cores of 24 AWG bunched conductors fiberglass with fiberglass overall with a stainless steel braid overall.
- Cores color 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 wire such as PVC or PFA



### Fiberglass 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	
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	
	Total Wire Size - AWG (S = Stranded)	24S	
	Total Area (mm <sup>2</sup> )	0.22	
	Insulation	Silicone Rubber	
<b>CORES</b>	Number of Pairs	3	
	Conductor Configuration	Twisted	
	Shielded*	No	
<b>OVERALL</b>	Insulation	Silicone Rubber	
	Insulation Rating (°F)	Continuous	-40 to +390
		Short Term	-58 to +480
	Color Coding	Yes	
	Physical Properties	Abrasion Resistance	Good
		Moisture Resistance	Very Good
		Typical Weight (lbs/1000ft) (excluding reel)	14
	Diameter under Armor (inches)	—	
	Diameter over Armor (inches)	—	
Overall Diameter† (inches)	0.16"		
Notes	Highly flexible, flame retardant, good resistance to lubricating oils, round section.		

Stock Number		RF37	RF47	RF67
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	7x32	7x32
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S
	Total Area (mm <sup>2</sup> )	0.22	0.22	0.22
	Insulation	Fiberglass		
<b>CORES</b>	Number of Pairs	3	4	6
	Conductor Configuration	Twisted		
	Shielded*	Yes		
<b>OVERALL</b>	Insulation	Fiberglass		
	Insulation Rating (°F)	Continuous	+870	
		Short Term	+1000	
	Color Coding	Yes		
	Physical Properties	Abrasion Resistance	Good	
		Moisture Resistance	None	
		Typical Weight (lbs/1000ft) (excluding reel)	14	21
	Diameter under Armor (inches)	—		
	Diameter over Armor (inches)	—		
Overall Diameter† (inches)	0.12"	0.16"	0.20"	
Notes	Above 356°F the integrity of the cable is maintained to the upper insulation rating limit provided the cable is not flexed particularly when cold.			

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

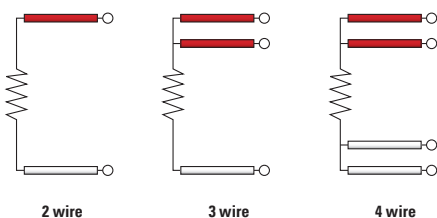
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These wire are normally available from us for immediate delivery from stock.

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.

### Color Codes (as per IEC 60751)



### Order Code - Example

Stock No.

**RF37**

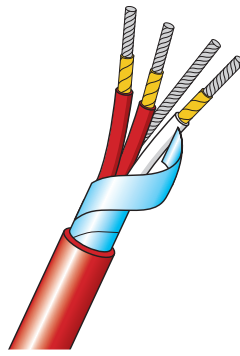
These wire are for use with RTD Resistance Thermometers.

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

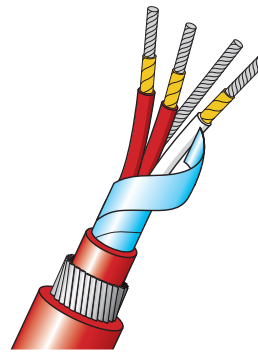
# RTD (Resistance Thermometer) Wire

## XLPE Insulated Twisted with Shield (Low Smoke Zero Halogen) -22°F to +165°F

- 3 or 6 cores of 20 AWG 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 Shield**  
Cores of **stranded** copper conductors, MICA glass taped and XLPE insulated. Cores bunched and shielded with Mylar® aluminium tape and drain wire. LSOH sheathed overall.



**MICA Glass / XLPE / LSOH with Shield and Armor**  
Cores of **stranded** copper conductors, MICA glass taped and XLPE insulated. Cores bunched and shielded with Mylar® aluminium tape and drain wire. LSOH sheathed. Steel wire armored and LSOH sheathed overall.

Stock Number		RM37	RM67	RM37/SWA	RM67/SWA	
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x28	7x28	7x28	7x28	
	Total Wire Size - AWG (S = Stranded)	20S	20S	20S	20S	
	Total Area (mm <sup>2</sup> )	0.5	0.5	0.5	0.5	
	Insulation	MICA and XLPE		MICA and XLPE		
<b>CORES</b>	Number of Pairs	3	6	3	6	
	Conductor Configuration	Twisted		Twisted		
	Shielded†	Yes		Yes		
<b>OVERALL</b>	Insulation	LSOH		LSOH		
	Insulation Rating (°F)	Continuous	-22 to +165		-22 to +165	
		Short Term	—		—	
	Color Coding	Yes		Yes		
	Physical Properties	Abrasion Resistance	Good		Good	
		Moisture Resistance	Very Good		Very Good	
		Typical Weight (lbs/1000ft) (excluding reel)	68	89	218	340
	Diameter under Armor (inches)	—		8	11	
Diameter over Armor (inches)	—		10	13		
Overall Diameter† (inches)	0.31"	0.43"	0.51"	0.63"		
<b>Notes</b>	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.

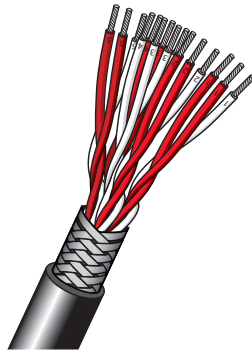
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Color Codes (as per IEC 60751)	Order Code - Example
<p>2 wire      3 wire      4 wire</p>	<p>Stock No.</p> <p><b>RM37</b></p> <p>These wire are for use with RTD Resistance Thermometers.</p> <p>These wire are normally available from us for <b>immediate</b> delivery from stock to IEC 60751 color coding.</p>

# RTD (Resistance Thermometer) Wire

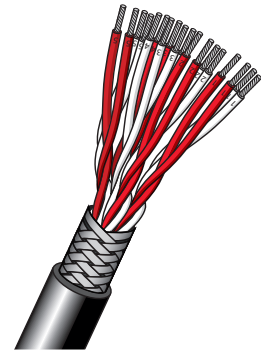
## PVC Insulated Multi Triads and Multi Quads RTD Wire -22°F to +220°F

- Incorporates Heat Resistant (HR) PVC suitable for use in the temperature range -22°F to +220°F
- Extremely useful where there is a need to run a number of RTD signals back to instrumentation
- 20 AWG 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. Tinned copper wire braided. HR PVC sheathed overall.



### Multi Quad PVC Insulated

Quads of stranded copper conductors. Quads HR PVC insulated. Quads bunched together. Tinned copper wire braided. HR PVC sheathed overall.

Stock Number		MT3705	MT3710	MT3715	MT4705	MT4710	MT4715	
<b>CONDUCTORS</b>	Wire Type (number of strands x AWG)	7x32	7x32	7x32	7x32	7x32	7x32	
	Total Wire Size - AWG (S = Stranded)	24S	24S	24S	24S	24S	24S	
	Total Area (mm <sup>2</sup> )	0.22	0.22	0.22	0.22	0.22	0.22	
	Insulation	Heat Resistant PVC			Heat Resistant PVC			
<b>CORES</b>	Number of Pairs	5 x 3	10 x 3	15 x 3	5 x 4	10 x 4	15 x 4	
	Conductor Configuration	Twisted			Twisted			
	Shielded*	Yes			Yes			
<b>OVERALL</b>	Insulation	Heat Resistant PVC			Heat Resistant PVC			
	Insulation Rating (°F)	Continuous	-22 to +165			-22 to +165		
		Short Term	—			—		
	Color Coding	Yes			Yes			
	Physical Properties	Abrasion Resistance	Good			Good		
		Moisture Resistance	Very Good			Very Good		
		Typical Weight (lbs/1000ft) (excluding reel)	89	150	198	109	184	259
	Diameter under Armor (inches)	—			—			
Diameter over Armor (inches)	—			—				
Overall Diameter† (inches)	0.4"	0.5"	0.6"	0.4"	0.6"	0.7"		
<b>Notes</b>	Rejects electromagnetic and electrostatic interference. Round section.			Rejects electromagnetic and electrostatic interference. Round section.				

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

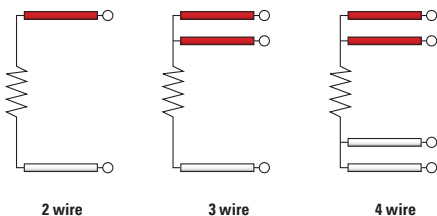
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These wire are normally available from us for immediate delivery from stock.

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.

### Color Codes (as per IEC 60751)



### Order Code - Example

Stock No.

**MT3705**

These wire are for use with RTD Resistance Thermometers.

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



**TC Measurement and Control Inc**  
**PO Box 685**  
**Hillside , IL 60162**  
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