




















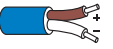

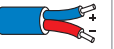














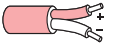
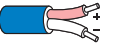


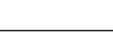
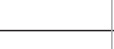
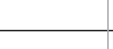
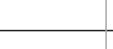
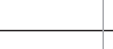


















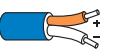












THERMOCOUPLE EXTENSION AND COMPENSATION COLOUR CHART

THERMOCOUPLE CONDUCTOR COMBINATION TYPE	EXTENSION CABLE	COMPENSATION CABLE	INTERNATIONAL COLOUR CODE TO IEC 584.3: 1989 BS 4937 Part 30: 1993	INTERNATIONAL COLOUR CODE TO IEC 584.3: 1989 BS 4937 Part 30: 1993	BRITISH TO BS 1843 	AMERICAN TO ANSI/MC96.1 	GERMAN TO DIN 43714 	FRENCH TO NFC 42324 	JAPANESE TO JIS C 1610-1981 	CONDUCTOR COMBINATIONS		APPROXIMATE WORKING TEMPERATURE RANGE OF MEASURING JUNCTION		NOTES	
										+LEG (positive)	-LEG (negative)	CONTINUOUS	SHORT TERM		
K	KX									NICKEL-CHROMIUM Also known as: Chrome	NICKEL-ALUMINIUM (MAGNETIC) Also known as: Ni-Al, Alumel	0°C to +1100°C	180°C to +1350°C	Most suited to oxidising atmospheres, it has a wide temperature range and is the most commonly used.	
		KCA													
		KCA													
T	TX									COPPER	COPPER-NICKEL Also known as: Constantan, Advance, Cupron.	185°C to +300°C	-250°C to +400°C	Excellent for low temperature and cryogenic applications. Good for when moisture may be present.	
J	JX									IRON (MAGNETIC) Also known as: Fe	COPPER-NICKEL Also known as: Nickel-Copper Constantan, Advance, Cupron.	+20°C to +700°C	-180°C to +750°C	Commonly used in the plastic moulding industry. Used in reducing atmospheres as an unprotected thermocouple sensor. NB. Iron oxidises thermocouple sensor. NB. Iron oxidises (rusts) at low and at high temperatures.	
N	NX									NICKEL-CHROMIUM-SILICON Also known as: Nicrosil	NICKEL-CHROMIUM-MAGNESIUM Also known as: Nisil	0°C to +1100°C	-270°C to +1300°C	Very stable output at high temperatures that can be used up to 1300°C. Good oxidation resistance. Type N stands up to temperature cycling extremely well.	
		NC													
E	EX									NICKEL-CHROMIUM Also known as: Chrome, Tophal Chromium, Nickel	COPPER-NICKEL Also known as: Nickel-Copper Constantan, Advance, Cupron.	0°C to +800°C	-40°C to +900°C	Has the highest EMF output change per °C. Suitable for use in a vacuum or mildly oxidising atmosphere as an unprotected thermocouple sensor.	
R		RCA								PLATINUM-13% RHODIUM	PLATINUM	0°C to +1600°C	-50°C to +1700°C	Used for very high temperature applications. Has a high resistance to oxidation and corrosion. Easily contaminated it normally requires protection (ceramic).	
		RCB													
S		SCA								PLATINUM-10% RHODIUM	PLATINUM	0°C to +1550°C	-50°C to +1750°C	Type S has similar characteristics to Type R as shown directly above.	
		SCB													
B										PLATINUM-30% RHODIUM	PLATINUM-6% RHODIUM	+100°C to +1600°C	+100°C to +1620°C	Type B has similar characteristics to Types R & S but is not as popular. Generally used in the glass industry.	