

## THERMOCOUPLE EXTENSION AND COMPENSATING CABLES

Thermocouple extension and compensating cables are designed for interconnection between thermocouple probes and control instrumentation. They are generally available in the following types.











Type (1) unarmoured cables with conductors insulated with PVC and twisted together in pairs, sheathed overall with PVC.

Type (2) Armoured cables with conductors insulated with PVC and twisted together in pairs, PVC bedding, Galvanised steel wire armour and sheathed overall with PVC.

Type (3) Lead sheathed and Armoured cables with conductors insulated with PVC and twisted together in pairs, PVC bedded, Lead alloy sheathed, PVC bedded, Galvanised steel wire armour and sheathed overall with PVC.

All of the above types of cable can be supplied unscreened or screened (Individually, collectively or both) with an Aluminium / Polyester tape screen incorporating tinned copper drain wires.

Alternative insulation and sheathing materials can also be used, details available upon request.

COLOUR CODE TABLE						
CONDUCTOR COMBINATIONS		BS 1843	BSEN60584.3	THERMOCOUPLE		CABLE
+	-			+	-	
Copper	Constantan			Copper	Constantan	Extension
			Type TX			
Iron	Constantan			Iron	Constantan	Extension
			Type JX			
Nickel Chromium	Nickel Aluminium			Nickel Chromium	Nickel Aluminium	Extension
			Type KX			
Copper	Constantan			Nickel Chromium	Nickel Aluminium	Compensating
			Type VX - KCB			
Copper	Copper Nickel			Platinum Rhodium	Platinum	Compensating
			Type RX / BC			

### IEC 60584 Tolerances for extension and compensating cables

Type	Tolerance		Cable Temperature Range	Measuring Junction Temperature
	1	2		
TX	± 30 V (± 0.5°C)	± 60 V (± 1.0°C)	- 25° - + 100°C	300°C
JX	± 85 V (± 1.5°C)	± 140 V (± 2.5°C)	- 25° - + 200°C	500°C
KX	± 60 V (± 1.5°C)	± 100 V (± 2.5°C)	- 25° - + 200°C	900°C
VX - KCB	-	± 140 V (± 2.5°C)	0° - + 100°C	900°C
RCA	-	± 30 V (± 2.5°C)	0° - + 100°C	1000°C
SCA	-	± 30 V (± 2.5°C)	0° - + 100°C	1000°C

**Note:** Cable temperature may be restricted to figures lower than those shown in the table because of temperature limit imposed by the insulant.