

# Thermocouple Compensation

## Trio Model 885

- Three Channel Referencing System
- Accurate
- Convenient

The Isotech Trio is a low-cost, accurate, portable unit designed to compensate three thermocouples for the variations in EMF caused by the cold junction not being at the standard reference temperature of 0°C.

Tables are available for each thermocouple combination which give the voltage versus temperature variation. The Trio senses the ambient temperature and generates an electrical voltage to cancel out the variation, thus providing equivalent of a 0°C cold junction reference bath. The Isotech Trio contains three electronic networks, incorporating a temperature-sensitive element which is thermally integrated with the thermocouple cold junction for maximum precision.

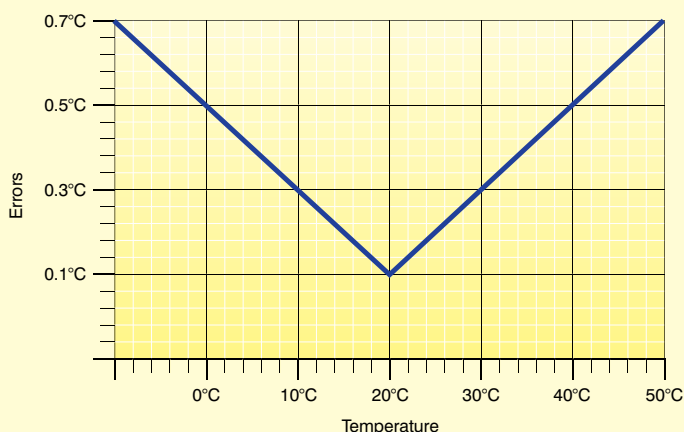
The unit is mains operated. The Trio is manufactured to the highest standards and after assembly each unit is calibrated to ensure conformance to the relevant thermocouple table. A wide range of thermocouple types are available. As standard, six thermocouple combinations are offered to customer requirements. The internal structure of the Trio allows either one, two or three thermocouple types to be compensated.



<b>Model</b>	<b>885</b>
Reference Temperature	0°C (others by arrangement)
Operating Temperature	0 to 55°C
Output Impedance	Less than 200 ohms
Power	10 Watts typical 100-130 or 208-240 VAC 50/60Hz
Accuracy	See Graph
Error due to Supply Variations	Negligible
Compensation for type	K, T, J, E, U, N U Wire used for R & S types unless otherwise specified
Stability	Typically 0.02% p.a.
Dimensions	Height 38mm Width 80mm Depth 150mm
Weight	349g

**How to order**  
Trio Model 885  
Specify 3 thermocouple types and supply voltage  
e.g. Trio K.K.E. 220V 50Hz.

**Accuracy of Compensation (Base Metals)**



**Note:**

The Trio has a common power supply and in some circumstances with grounded thermocouples earth loops can form causing apparent errors in compensation.