

Reference Junction Model X85-RJ



- Direct connection to X85 Calibrator INPUT and OUTPUT binding posts
- Highly accurate 0°C reference junction
- Very low power requirements
- Independent remote reference junction using X85 battery pack
- Allows direct millivolt reading of thermocouple signal
- Simulate thermocouple with direct millivolt X85 output setting



Model X85-RJ

Compensation for offset caused by connection of thermocouple wires to the binding posts of the Model X85 Portable Calibrator can now be made using the Model X85-RJ Reference Junction. Use of the X85-RJ eliminates the need for an ice bath or the tedious mathematics involved in measuring the ambient temperature at the binding posts, looking up the equivalent millivolt offset and adding this number to the reading. The X85-RJ plugs directly into the input or output binding

posts and derives its power from the internal Battery in the X85 Calibrator via the front panel jack. A true 0°C Reference Junction is provided which allows thermocouple signals to be directly read on the front panel meter or simulated as an input to an external system. A self-compensating bridge network using a temperature sensitive resistor provides an offset voltage that directly compensates for the error voltage at the junction of the Thermocouple wire and the binding posts.

Specifications

1.0 Thermocouple Types:

E, J, K, T, R or S

1.1 Reference Junction Temperature:

0°C

1.2 Impedance in series with "+" input:

Less than 125 Ohms

1.3 Accuracy:

± 0.2°C at 25 ± 5°C ambient

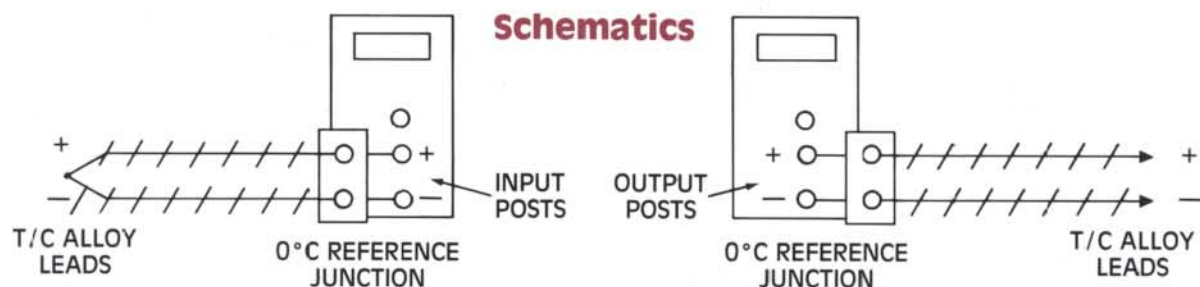
± 0.5°C from 15°C to 35°C ambient

1.4 Power:

Derives power from internal Model X85 Battery. Internal voltage converter maintains isolation between Reference Junction and X85 battery. 6 ± 0.5 VDC at 5 mA

1.5 Size:

2.25" (5.72cm)L X 1.375" (3.5cm)W
X 1.125" (2.86cm)H



Temperature measurement using thermocouple input along with the X85-RJ Reference Junction. Temperature is read as direct millivolt reading.

Thermocouple simulation using the X85-RJ Reference Junction. Temperature is simulated by direct millivolt setting as an output of the Model X85 Calibrator.

Ordering Information

Model X85-RJ-() Type of Thermocouple used—
E, J, K, T, R, S

RONAN

X85-RJ/Rev. 1

Printed in U.S.A.

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