

Precision Low Resistance Measurement with Temperature Compensation

For quality control, our customer requires to measure the resistance of hot copper coil windings. Texmate installed a Tiger 320 Series DI-50E meter. A constant current is passed through the coil and the resistance calculated. To compensate for temperature variation the infrared sensor monitors the coil temperature.

A setpoint indicates 'PASS' or 'FAIL' of the coil under test. The meter's decimal point is set for a display resolution in milliohms (0.001 Ω).

The meter can be configured with temperature compensation for almost any conducting material.

RESISTANCE

PRECISION LOW RESISTANCE MEASUREMENT WITH TEMPERATURE COMPENSATION APPLICATION FUNCTIONS TEMPERATURE COMPENSATION **OPERATIONAL DISPLAY** RELAY displays Ω DI-50 TIGER 320 SERIES 1 Fail Pass SP1 SP2 SP3 SP4 SP5 SP6 Sense resistance Sense resistance Constant Current Return Current CALCULATIONS **INPUTS** 24 V Excitation Infrared Sensor 0-10 V output **APPLICATION VARIATIONS** (10 mV/°C) • Print labels. TEMPERATURE • Auto sample, log and print for quality control records. • 0.0001 Ω resolution.