3000 SERIES INDUCTANCE CALIBRATION OPTION

OPTION IND (for 3041/3010)

By incorporating this useful and easy to use option the work load of the calibrator can be increased to allow calibration of RLC (Resistance, Inductance and Capacitance) meters and bridges and also allows calibration of DMMs with inductance measurement ranges.

Incorporates 8 fixed values, including 19mH and 29mH for '3' range meters to allow testing of these types of meters at points which can verify their linearity at near full scale points.

- 8 precision inductance values from 1mH to 10H
- For calibration of RCL meters & bridges
- Cost effective option
- Automated Calibration Using ProCal Software

SPECIFICATIONS	
Range	1mH • 10mH • 19mH • 29mH 50mH • 100mH • 1H • 10H
Accuracy	0.5%
Calibration frequency	1kHz

See extended specifications for full details

Measured Value Stored For Accurate Calibration

When the 3000 series inductance option is calibrated, the exact value of the inductor is measured as Ls up to 1H, Lp above at 1kHz and stored in memory. This value is recalled and displayed each time a specific inductor is selected, allowing accurate calibration to be performed.

3000 SERIES SIMULATED RES/CAP OPTION

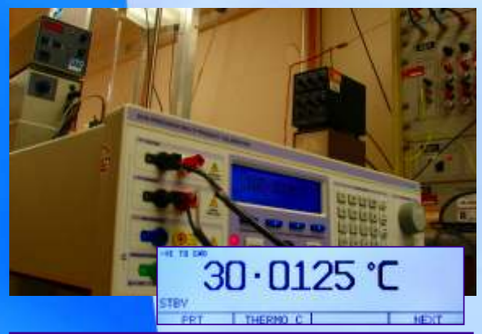
OPTION SIMRC (for 3041/3010)

For dependable readings regardless of the measurement technique and the ultimate in performance the 3000 series uses precision passive resistors and capacitors, with calibrated values for both 2 and 4 wire connections. Using passive standards also allows confident calibration of AC bridges and removes any difficulty with traceability.

For the 3010 and 3041 an active simulated option provides for resistance calibration between cardinal points and gives a continuous resistance range from 30 ohms to 10Mohms, with decade capacitance points up to 10mF.

3000 SERIES RTD / PRT SIMULATION OPTION

OPTION PRT (for 3041/3010)



The PRT option makes the calibration of high accuracy resistance thermometers easy. Simply connect in place of the probe and compare the displayed value with the calibrated value from the 3000 series calibrator. Because the calibrator uses passive precision resistors, reliable readings are guaranteed regardless of the measurement technique used by the thermometer.

- Ultra Accurate Resistance Value
- 2, 3 or 4 Wire Simulation of Probe
- 8 Passive Resistance Values
- Temperature Standard : EN60751:1996 / IEC 60751:1983
- Automated Calibration Using ProCal Software

SPECIFICATIONS	
Range	-100°C • 0°C • 30°C • 60°C 100°C • 200°C • 300°C • 800°C
Nominal resistance value	60.25 • 100 • 111.67 • 123.24 138.5 • 175.84 • 247.04 • 375.51 Ohms
Accuracy	0.02°C to 0.08°C

See extended specifications for full details

Measured Value Stored For Accurate Calibration

When the 3000 series PRT option is calibrated, the exact temperature values on the ITS90 scale for Pt-385 resistors is stored in non volatile memory. This value is recalled and displayed each time a specific resistor is selected, allowing accurate calibration to be performed.

3000 SERIES PRECISION LEAD SET OPTION

OPTION 3000LEAD

- Comprehensive 19 piece test lead & adapter set
- Low thermal gold/copper voltage leads (0.7uV)
- High current 32A leads
- All 4mm plugs with safety shrouds

A comprehensive collection of test leads and adapters is provided to cover requirements from low level DC through to high current and high resistance measurements.

The leads and materials supplied in this measurement set have been carefully selected to minimise connection/lead errors. The safety of the leadset is ensured by the use of non-retractable shrouded connectors for the voltage test lead set.

The leads are stackable to allow connections to be commoned together where required.

QTY	USE	DESCRIPTION	SPECIFICATIONS
1 pair	Voltage	Black & White leads with low thermal 4mm non-retractable shroud safety plugs - gold plated	1m • 1000VAC/16A • 0.7uV thermals • Gold plated
1 pair	Current	Black & Red leads fitted each end with 4mm retractable shroud safety plugs	1m • 150VAC • 16A • Nickel plated brass
1 pair	High Current	Low resistance Blue & Yellow leads fitted each end with 4mm retractable shroud safety terminals.	1m • 150VAC • 32A • Nickel plated brass
1	Oscilloscope / AC	Coax lead fitted each end with BNC connectors	1m • 300VAC • 0.5A • Silver plated
4	Adapters	Low thermal Black & Red 4mm plug to spade adapters	Gold plated
4		Unshrouded open end adapters	Gold plated
2		4mm plug to cable adapters	Gold plated
2		BNC to 4mm adapters	

3000 SERIES THERMOCOUPLE SIMULATION ADAPTER

EA001

- Superior Thermocouple Simulation Using External Adapter

Temperature gradients / thermal EMFs which can be introduced by internally mounted thermocouple simulation methods are one of the greatest sources of error with thermocouple temperature calibration.

For the ultimate in accuracy, Transmille has designed a dedicated external unit. This keeps the electronics required to generate the low level signals used for thermocouple simulation as close as possible to the measuring input of the thermometer. This allows the signal to be as free from electrical noise as possible, and also eliminates errors caused by heat generated by surrounding electronics in the calibrator.

- Direct Simulation of 8 Thermocouple Types
- Simulates any T/C type using Virtual Front Panel Software
- Temperature Standard - EN60584-1 (1996) : Scale - ITS90
- Uses neutral (copper) thermocouple plug - For simulation of any thermocouple type without the need for compensation cables, avoiding introduction of errors.
- CJC sensor built into thermocouple plug The ultimate in accurate CJC compensation - measures the temperature at the closest point to the cold junction.

Special care has been taken over the cold junction compensation - a common source of errors in thermocouple calibration. The cold junction compensation (CJC) sensor is mounted in the thermocouple plug itself. By measuring the cold junction at the instruments input allows any type of thermocouple to be simulated without using compensation cables.

SPECIFICATIONS		
Type	Range	Accuracy (°C)
J	-180°C to 150°C	0.05
	150°C to 750°C	0.30
K	-140°C to 200°C	0.10
	200°C to 1340°C	0.35
T	-250°C to 400°C	0.20
R	-50°C to 500°C	0.20
	500°C to 1700°C	1.00
S	-50°C to 1200°C	0.60
	1200°C to 1700°C	1.60
B	0°C to 1200°C	0.10
	1200°C to 1820°C	1.30
N	-270°C to 260°C	0.10
	260°C to 1300°C	0.40
E	0°C to 800°C	0.80