



Scope of Accreditation

ACCREDITATION NO: 15257

TRIO Smartcal Pty Ltd

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FACILITIES: Public testing service

This facility complies with the requirements of ISO/IEC 17025:2005

1.20 Pressure and vacuum measuring devices

- .01 Pressure gauges
 - Calibration of pressure gauges including test gauges to AS 1349 in the range from 200 kPa to 55 MPa with least uncertainties of measurement of - 0.05%
 - Calibration of industrial gauges on site to AS 1349 in the range 100 kPa to 35 MPa
- .11 Pressure transducers
 - Self indicating only based on 1.20.01
- .13 Pressure recorders

1.33 Capacitors

- .01 Precision capacitors
 - Two terminal capacitors from 100Hz to 1kHz with least uncertainties of measurement of - 0.11% from 10 pF to 100 pF
 - 0.06% from 101 pF to 1000 nF
 - 0.58% from 1.01 μ F to 100 μ F

1.35 Inductors and instrument transformers

- .01 Inductors, self and mutual
 - with least uncertainties of measurement of - 0.06% from 0.1 to 500 mH at 1kHz

1.39 Indicating and recording instruments

- .01 D.C. voltmeters
 - With least uncertainties of measurement of - 72 μ V/V + 4 μ V up to 10 mV
 - 81 μ V/V from 10 to 300 mV
 - 60 μ V/V from 300 mV to 3 V
 - 82 μ V/V from 3 to 30 V
 - 65 μ V/V from 30 to 300 V



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67 $\mu\text{V/V}$ from 300 to 1000 V

.02 A.C. voltmeters

With least uncertainties of measurement of -

0.31% from 30 to 300 mV and 10 to 45 Hz

0.13% from 30 to 300 mV and 45 Hz to 10 kHz

0.92% from 30 to 300 mV and 10 kHz to 500 kHz

0.19% from 300 mV to 3 V and 10 to 45 Hz

0.04% from 300 mV to 3 V and 45 Hz to 1 kHz

0.10% from 300 mV to 3 V and 1 to 20 kHz

0.34% from 300 mV to 3 V and 20 to 50 kHz

0.70% from 300 mV to 3 V and 50 to 450 kHz

0.19% from 3 to 30 V and 10 to 45 Hz

0.11% from 3 to 30 V and 45 Hz to 10 kHz

0.34% from 3 to 30 V and 10 to 90 kHz

0.06% from 30 to 300 V and 10 to 45 Hz

0.10% from 30 to 300 V and 45 Hz to 10 kHz

0.12% from 30 to 300 V 10 to 18 kHz

0.07% from 300 to 1000 V and 10 to 45 Hz

0.25% from 300 to 1000 V and 45 Hz to 1 kHz

0.31% from 300 to 1000 V and 1 to 10 kHz

.03 D.C. ammeters

With least uncertainties of measurement of -

0.016% + 0.05 μA up to 3.3 mA

0.013% from 3.3 to 33 mA

0.013% from 33 to 330 mA

0.040% from 330 mA to 2.2 A

0.075% from 2.2 to 11 A

.04 A.C. ammeters

With least uncertainties of measurement of -

0.14% from 300 μA to 2.2 A and 57 Hz to 1 kHz

0.10% from 2.2 to 11 A and 57 Hz to 1 kHz

0.7% from 300 μA to 300 mA and from 1 to 10 kHz

.09 Ohmmeters

With least uncertainties of measurement of -

0.02% + 0.006 Ω up to 2 Ω

0.09% from 2 to 33 Ω

0.03% from 33 Ω to 3.3 M Ω

0.08% from 3.3 to 11 M Ω

0.12% from 11 to 33 M Ω

0.58% from 33 to 100 M Ω

.10 LCR meters

DC resistance, capacitance and inductance

with least uncertainties of measurement of -

Based on 1.39.09, 1.33.01 and 1.35.01



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1.41 Frequency and time measuring instruments and standards

- .01 Frequency meters
 - with least uncertainties of measurement of -
 - 1 in 10^9 at frequencies up to 2.1 GHz
- .11 Counters
 - with least uncertainties of measurement of -
 - 1 in 10^9 at frequencies up to 2.1 GHz
- .21 Frequency standards
 - with least uncertainties of measurement of -
 - 1 in 10^9 at frequency up to 10 MHz
- .31 Calibration of frequency
 - with least uncertainties of measurement of -
 - 1 in 10^9 at frequency up to 18 GHz

1.42 Frequency analysers and waveform measuring instruments

- .01 Frequency characteristics
 - Frequency response flatness
 - With internal 50Ω
 - 4.5% at 5 mVp-p from 100 kHz to 100 MHz
 - 5.0% at 5 mVp-p from 100 to 300 MHz
 - 7.2% at 5 mVp-p from 300 to 600 MHz
 - 2.8% from 10 mVp-p to 5.5 Vp-p and 100 kHz to 100 MHz
 - 3.2% from 10 mVp-p to 5.5 Vp-p and 100 to 300 MHz
 - 5.0% from 10 mVp-p to 5.5 Vp-p and 300 to 600 MHz
 - 8.2% from 5 mVp-p to 5.5 Vp-p from 600 to 1000 MHz
 - With external 50Ω
 - 5.7% at 5 mVp-p from 100 kHz to 100 MHz
 - 6.1% at 5 mVp-p from 100 to 300 MHz
 - 7.9% at 5 mVp-p from 300 to 600 MHz
 - 4.4% from 10 mVp-p to 5.5 Vp-p from 100 kHz to 100 MHz
 - 4.6% from 10 mVp-p to 5.5 Vp-p from 100 to 300 MHz
 - 6.1% from 10 mVp-p to 5.5 Vp-p from 300 to 600 MHz
- .02 Input characteristics
 - For DC voltage with $1 M\Omega$ input resistance
 - With least uncertainties of measurement of -
 - 0.06% + 40 μ V at 5 mV
 - 0.15% from 10 to 50 mV
 - 0.07% from 50 mV to 0.5 V
 - 0.06% from 0.5 to 100 V

 - For DC voltage with 50Ω input resistance
 - With least uncertainties of measurement of -
 - 0.29% + 40 μ V at 5 mV
 - 0.38% from 10 to 50 mV
 - 0.30% from 50 mV to 0.5 V
 - 0.29% from 0.5 to 5 V



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For square wave with 1 M Ω input resistance
With least uncertainties of measurement of -
0.12% + 40 μ V at 5 mV
0.21% from 10 to 50 mV
0.13% from 50 mV to 0.5 V
0.12% from 0.5 to 100 V

For square wave voltage with 50 Ω input resistance
With least uncertainties of measurement of -
0.29% + 40 μ V at 5 mV
0.38% from 10 to 50 mV
0.30% from 50 mV to 0.5 V
0.29% from 0.5 to 100 V

.03 Timing characteristics

With least uncertainties of measurement of -
85 μ s/s from 50 ms to 5 s
28 μ s/s from 2 ns to 20 ms

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(Scope Last Changed 06/10/08)
