



## 5065 Bench Digital Multimeter

*Time Electronics*

Calibration, Test & Measurement

- Resolution 6 1/2 digits
- Accuracy: 0.005% DC Voltage
- USB Interface
- Optional GPIB Interface
- Temperature Measurements
- SCPI Command Set
- 10 Channel scanner interface available



**EasyCal**  
Software Compatible

The **5065** is a high performance, versatile 6 1/2 digit bench multimeter with 19 measurement functions. Low cost, simple operation, stability, and high accuracy make the 5065 an ideal DMM for a variety of applications. In addition high speed means both the sampling rate and the data transfer rate can achieve 2000 readings per second.

The comprehensive range of features makes the 5065 suitable for test engineers, R&D, service, and calibration technicians. The durable construction with a protective rubber guard and carry handle allows convenient bench top use, and transportability.

The front panel features a two-line, colour-coded display for easy to read measurements and functions. Control is simple, with common functions selected from a single button press.

The 5065 measures AC/DC voltage, AC/DC current, 2/4 wire resistance, frequency, period, diode, continuity, thermocouples and RTD.

In addition to standard functions many other capabilities such as Min/Max, Ratio/% and Null are included. Memory functions with up to 2000 readings can be stored and recalled. Limit testing with an external output can be configured to signal pass or fail.

The USB interface enables connectivity to a PC. A basic setup and graphing application is supplied as standard. Add-in utilities for Microsoft Excel and Word allow simple data collection directly into a spreadsheet or document.

An optional 10 channel scanner card is available which allows multiple inputs to be measured. Further options are test lead sets, GPIB and RS232 interfaces, and an RTD probe adaptor.

### **Calibration Made Easy**

Connect the 5065 to a PC/Laptop installed with Time Electronics EasyCal and automate the calibration process. Increase speed of calibration and consistency of results, produce calibration certificates and reports to ISO 9001 quality standards.

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## 5065 Technical Specifications

Specifications are for 1 year  $\pm$ (% of reading + % of range) (23 °C  $\pm$ 5 °C)

DC Voltage			
Range	Resolution	Input Resistance	Accuracy
100.0000 mV	0.1 $\mu$ V	> 10G $\Omega$	0.0050 + 0.0035
1.000000 V	1.0 $\mu$ V	> 10G $\Omega$	0.0040 + 0.0007
10.00000 V	10 $\mu$ V	> 10G $\Omega$	0.0035 + 0.0005
100.0000 V	100 $\mu$ V	10M $\Omega$	0.0045 + 0.0006
1000.000 V	1 $\mu$ V	10M $\Omega$	0.0045 + 0.0010
DC Current			
Range	Resolution	Shunt Resistance	Accuracy
10.000000mA	10nA	5.1 $\Omega$	0.05 + 0.02
100.00000mA	100nA	5.1 $\Omega$	0.05 + 0.005
1.000000A	1 $\mu$ A	0.1 $\Omega$	0.1 + 0.01
3.000000A	10 $\mu$ A	0.1 $\Omega$	0.12 + 0.02
Resistance			
Range	Resolution	Test Current	Accuracy
100.0000 $\Omega$	100 $\mu\Omega$	1mA	0.01 + 0.004
1.000000 K $\Omega$	1m $\Omega$	1mA	0.01 + 0.001
10.00000 K $\Omega$	10m $\Omega$	100 $\mu$ A	0.01 + 0.001
100.0000 K $\Omega$	100m $\Omega$	10 $\mu$ A	0.01 + 0.001
1.000000 M $\Omega$	1 $\Omega$	5 $\mu$ A	0.01 + 0.001
10.00000 M $\Omega$	10 $\Omega$	500nA	0.04 + 0.001
100.0000 M $\Omega$	100 $\Omega$	500nA	0.8 + 0.01
Diode Test			
1.0000V	10 $\mu$ V	1mA	0.01 + 0.02
Continuity			
1000.00K $\Omega$	10m $\Omega$	1mA	0.01 + 0.03
AC Voltage			
Range	Resolution	Frequency (Hz)	Accuracy
100.0000mV	0.1 $\mu$ V	3-5	1.00 + 0.04
		5-10	0.35 + 0.04
		10-20K	0.06 + 0.04
		20-50K	0.12 + 0.05
		50K – 100K	0.60 + 0.08
		100K – 300K	4.00 + 0.50
1.000000V to 750.000V	1.0 $\mu$ V To 1mV	3-5	1.00 + 0.03
		5-10	0.35 + 0.03
		10-20K	0.06 + 0.03
		20-50K	0.12 + 0.05
		50K – 100K	0.60 + 0.08
		100K – 300K	4.00 + 0.50
AC Current			
Range	Resolution	Frequency (Hz)	Accuracy
1.000000A	1 $\mu$ A	3-5	1.00 + 0.04
		5-10	0.30 + 0.04
		10-5K	0.10 + 0.04
3.000000	10 $\mu$ A	3-5	1.10 + 0.06
		5-10	0.35 + 0.06
		10-5K	0.15 + 0.06
Frequency and Period			
Range	Frequency (Hz)	Accuracy (% of reading )	
100mV to 750V	3-5	0.1	
	5-10	0.05	
	10-40	0.03	
	40-300K	0.06	

**RTD Types:** PT100,D100, F100, PT385 or PT3916. (Best Acc.  $\pm$ 0.08°C )

**Thermocouple Types:** J,K & T(Acc.  $\pm$ 0.5°C ). E(Acc.  $\pm$ 0.6°C ).R,S & B(Acc.  $\pm$ 5°C )

### General Specification

Dimensions: 85(H) x 210(W) x 350(D)mm  
Weight: 4.36kg

### Ordering Information

Code	Description	Code	Description
5065	6.5 Digit DMM	9541	5 piece Test Lead Set
9714	10 Channel Scanner Card	9796	12 piece Test Lead set
9715	GPIO Interface	9747	EasyCal Calibration Software
9716	RS232 Interface	9173	Factory (NPL Traceable) Calibration Certificate
9717	RTD Probe Adaptor	9117	UKAS Calibration Certificate (ISO 17025)

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.