

DO7

RUGGED DIGITAL MICRO OHMMETER FOR LOW RESISTANCE MEASUREMENT

The DO7 is a practical instrument for low resistance measurement, ideal for use in the workshop, field or test facilities. It is of rugged construction in a sealed ABS plastic case with lid and carrying handle. The DO7 has many advanced features, including protection up to 415 volts rms at the measuring terminals, digital calibration and long scale length, 6000 count. Rechargeable batteries mean real portability with more than 1 hour of continuous operation on the lowest ranges, and 20 hours on all others. Battery charge indicators are provided. The internal charger will boost charge to 90% of full charge, switching automatically to a trickle maintenance charge. Warning LEDs illuminate when an open circuit lead condition is detected. A front panel socket provides a serial RS232 output for connection to an external printer or PC, and a socket is also provided for the connection of an external start switch, e.g. a foot switch. The DO7 is supplied ready for use with batteries, mains cord and test leads, no extras are normally necessary. For special lead sets we offer a variety of different styles which are listed on the accessories page, together with calibration standards.

KEY FEATURE	DO7
True 4 terminal measurement eliminates lead resistance errors	■
10 Amp measuring current	■
Rechargeable batteries with built-in charger	■
Measuring range 600 micro ohm...60 ohm	■
Resolution 0.1 micro ohm on 600 micro ohm range	■
0.8" LED display daylight viewable	■
Auto average of forward and reverse measurement	■
Remote start socket	■
All solid state design	■
Wide range of leads and accessories available	■
RS232 printer output	■



DO5000/DO5001 SPECIFICATIONS

Range	Resolution	Minimum Current	Maximum Current	Accuracy at Full Rated Current
30kΩ	1Ω	10μA	100μA	±(0.03% Rdg +0.02% FS)
3kΩ	100mΩ	100μA	1mA	±(0.03% Rdg +0.01% FS)
300Ω	10mΩ	1mA	10mA	±(0.03% Rdg +0.01% FS)
30Ω	1mΩ	10mA	100mA	±(0.03% Rdg +0.01% FS)
3Ω	100μΩ	100mA	1A	±(0.03% Rdg +0.01% FS)
200mΩ	10μΩ	1A	10A	±(0.03% Rdg +0.01% FS)
30mΩ	1μΩ	1A	10A	±(0.03% Rdg +0.01% FS)
3mΩ	100nΩ	1A	10A	±(0.03% Rdg +0.02% FS)

DO5002 SPECIFICATIONS

Range	Resolution	Typical Current	Maximum Current	Accuracy at Full Rated Current
30kΩ	1Ω	10μA	100μA	±(0.03% Rdg +0.02% FS)
3kΩ	100mΩ	100μA	1mA	±(0.03% Rdg +0.01% FS)
300Ω	10mΩ	1mA	10mA	±(0.03% Rdg +0.01% FS)
30Ω	1mΩ	10mA	100mA	±(0.03% Rdg +0.01% FS)
3Ω	100μΩ	10mA	100mA	±(0.03% Rdg +0.01% FS)
200mΩ	10μΩ	10mA	100mA	±(0.03% Rdg +0.01% FS)

Measurement

4 terminal Kelvin/Thomson principle eliminates errors due to lead resistance

Display

LCD graphics panel with backlit 30,000 count

Ranges

8 automatic or manual selection

Terminals

4mm safety sockets

Working Temperature

0°C to +45°C rel. humidity 80% max. non-condensing

Storage Temperature

-20°C to +60°C

Mains Supply

115/230V +10% -10%
47Hz to 163Hz 20VA

Safety

EN 61010-1 EMC-EN 61236

Dimensions

339mm x 324mm x 131mm (W H D) approx

Mass

12kg approx. 12kg packed in carton

Auto Zero

Permits the zero of measurement values

Average

Automatic average and display of measurement with forward and reverse current

Auto Temperature Compensation

Automatically references measurement to temperature of 20°C or user defined temperature. User coefficients may be used. External Pt100 senses temperature manual value can be used

Hi / Lo Limits

Limit values can be set over entire measurement range

Calibration

Digital pass code protected

Protection

415 Vrms maximum at the measuring terminals will blow internal protection fuse

CODE	ITEM	DO5000 SERIES OPTIONS
C02	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 0.1...100mm ²	
C02A	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 1...1000mm ²	
C03	1 metre cable clamp with water bath for the precise measurement of 1 metre cable samples 1...1000mm ²	
DO500-CS	Calibration standard	
HS01-P	Duplex handspikes with 3 metre lead length	
HS02-P	Duplex handspikes with 3 and 15 metre lead length	
IEEE-DO5	Interface IEEE-488	
IEEE-L01	IEEE-488 cable 1 metre	
LS03-P	Lead set with 3 metre leads terminated in large Kelvin clips type KC3	
LS04-P	Lead set with 3 metre and 15 metre lead length terminated in large Kelvin clips type KC3	
LS05	Lead set with 4 x 1 metre leads terminated in banana plugs, 4 x Crocodile clips, 4 x test probes and 2 x Kelvin clips type KC1	
LS06-P	Lead set with 1 metre leads terminated in miniature Kelvin clips type KC2	
PLC-DO5	Interface PLC	
PT02-DO5	Temperature probe with 2 metre lead length	