

DO7

RUGGED DIGITAL MICROHMMETER 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	■



DO7 SPECIFICATIONS

Range	Resolution	Typical Current	Accuracy at 20°C ±5°C, 1 Year	Temp Coefficient/°C
60Ω	10mΩ	1mA	±(0.15% Rdg +0.05% FS)	40ppm Rdg + 30ppm FS
6Ω	1mΩ	10mA	±(0.15% Rdg +0.05% FS)	40ppm Rdg + 30ppm FS
600mΩ	100μΩ	100mA	±(0.15% Rdg +0.05% FS)	40ppm Rdg + 30ppm FS
60mΩ	10μΩ	1A	±(0.15% Rdg +0.05% FS)	40ppm Rdg + 30ppm FS
6mΩ	1μΩ	10A	±(0.2% Rdg +0.01% FS)	40ppm Rdg + 30ppm FS
600μΩ	0.1μΩ	10A	±(0.2% Rdg +0.2% FS)	40ppm Rdg + 250ppm FS

Measurement

4 Terminal Kelvin / Thomson principle eliminates errors due to lead resistance. Open circuit measurement voltage = 2V dc

Display

0.8" LED 6000 count with automatic decimal point and polarity indication

Ranges

6 push button selected with LED indication

Terminals

6mm binding posts accept spade tags and 4 mm banana plugs

Working Temperature

0°C to 40°C rel. humidity 80% max. non-condensing

Storage Temperature

-20 to +50°C

Mains Supply

100 / 120 / 220 / 240 Volts
+10% - 13% 47Hz to 63Hz. max 80VA

Safety

IEC 1010 Protective Class 1

Dimensions

343mm x 327mm x 152mm (W D H) approx

Mass

8kg approx

Protection

415 Vrms maximum at input terminals

Calibration

Digital, security key protected

Battery

Sealed lead acid, rechargeable cells giving a minimum of 1 hour of continuous measurement on the lowest 10 amp ranges and 20 hours on all other ranges. Internal charger with battery state indicator

Average

Automatic average and display of measurement with forward and reverse current

CODE ▾	ITEM ▾	DO7 OPTIONS
CB03		Lead bag attaches to lid of DO7, must be ordered with DO7
DO7-RS		Remote start plug
FS01		Remote start foot switch
HS01		Duplex handspikes with 3 metre lead length
HS01-RS		Duplex handspikes with 3 metre lead length with remote start button
HS02		Duplex handspikes with 3 and 15 metre lead length
HS02-RS		Duplex handspikes with 3 and 15 metre lead length with remote start button
LS03		Lead set with 3 metre leads terminated in large Kelvin clips type KC3
LS04		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 in miniature Kelvin clips type KC2
MTS2		Calibration standard
RSL01		RS232 cable