

# DO7PLUS

## RUGGED DIGITAL MICROHMMETER FOR LOW RESISTANCE MEASUREMENT, WITH BUILT IN TEMPERATURE COMPENSATION

The DO7Plus is a 10A Microhmmeter, suitable for applications within Aerospace, Utilities, Cable or Machine Manufacturers or where a cooling curve is required to plot peak resistance. Sealed in an IP67 case (when closed or IP53, lid open) it is ruggedly constructed to ensure durability.

The DO7Plus has a backlit LCD graphics panel, full QWERTY keyboard, temperature compensation via optional PT100 probe, and built in coefficients for Copper and Aluminium as well as user defined. Full cooling curve facilities are built in, with real time graphical plotting on the LCD. Data log memory contents can be plotted and a curve fitted to calculate the peak resistance value when  $t=0$ .

The unit has a display length of 60000 counts and auto averaging of forward and reverse measurement removes thermal emf differences. Connectivity is improved with both USB and RS232 for data downloading. The internal memory holds up to 1000 date and time stamped readings and which can be viewed on the LCD or downloaded with the free software provided, as CSV file to a PC for further analysis.

The data log memory using the latest FRAM technology which offers unlimited read/write cycles and over 10 years of data retention, without relying on internal batteries.

The unit has built in rechargeable batteries which will provide up to 1 hour of continuous use at 10A, and up to 20 hours at all other ranges.

KEY FEATURE	DO7 +
On screen real time graphical plotting cooling curve facilities with peak resistance value calculator	■
It's fast, reading rate of 2 readings per second	■
Measuring ranges from 6 mohm to 6 kohm	■
Resolution 100 nohm to 6 mohm range	■
Backlit LCD graphic panel with programmable timer for battery conservation	■
Single pulse measurement for fast resistance tests	■
Continuous measurement current for inductive tests	■
Full test lead continuity testing and diagnostic display	■
Multi lingual - Display available in English, French, German, Spanish or Italian	■



# DO7 PLUS SPECIFICATIONS

Range	Current	Resolution	FSV	Uncertainty
6.0000 mΩ	10 A	100 nΩ	60 mV	0.05% Rdg +0.01%FS
60.000 mΩ	1 A	1 μΩ	60 mV	0.05% Rdg +0.01%FS
600.00 mΩ	100 mA	10 μΩ	60 mV	0.05% Rdg +0.01%FS
6.0000 Ω	10 mA	100 μΩ	60 mV	0.05% Rdg +0.01%FS
60.000 Ω	1 mA	1 mΩ	60 mV	0.05% Rdg +0.01%FS
600.00 Ω	100 μA	10 mΩ	60 mV	0.05% Rdg +0.01%FS
6.0000 kΩ	100 μA	100 mΩ	600 mV	0.05% Rdg +0.01%FS

## Measurement

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

## Display

60,000 count + sign LCD graphics panel with backlight Select display value of °C or °F

## Ranges

7 resistance ranges

## Terminals

4mm safety sockets

## Working Temperature

0 deg C to 40 deg C

## Storage Temperature

-20 deg C to +50 deg C

## Safety

Conforms to EN 61010-1:2001 50V Cat 3

## Dimensions

358mm X 269mm X 155mm

## Mass

6kg (instrument only)

## Calibration

Digital Password protected, manual or via remote interface

## Battery

Internal, fixed NiMh battery pack, Gas Gauge circuits to monitor battery capacity. Internal automatic FAST / TRICKLE battery Charger. DC input from 9V to 36V.

## Mains Supply

External mains psu 90V – 253V, 47Hz to 63Hz with interchangeable plugs.

CODE ▾	ITEM ▾	DO7PLUS OPTIONS
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	
LS03-P	Lead set with 3 metre leads and terminated with large Kelvin clips type KC3	
LS04-P	Lead set with 3 metres and 15 metres lead length terminated in large Kelvin clips type KC3	
HS01-P	2 x Duplex handspike with 3 metre lead length	
HS02-P	Duplex handspikes with 3 and 15 metre lead length	
CH01	Concentric handspikes 3M lead length	
MTS 5	Calibration Standard Note: Lead sets can be supplied in different lengths to order	
C02	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 0.1...100mm <sup>2</sup>	
CO2A	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 1...1000mm <sup>2</sup>	
C03	1 metre cable clamp with water bath for the precise measurement of 1 metre cable samples 1...1000mm <sup>2</sup>	

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