

# DO4A

## RUGGED, PORTABLE DIGITAL OHMMETER WITH 415V PROTECTION, DIGITAL CALIBRATION & 4000 COUNT

The DO4A is a practical instrument for low resistance measurement, ideal for use in the workshop, field or test facilities. It is of rugged construction contained in an aluminium case with tilt handle. The DO4A has many advanced features, including protection up to 415 volts rms, digital calibration and long scale length (4000 count). The rechargeable sealed lead acid battery means real portability with more than 14 hours continuous operation, without the problems normally associated with other battery types. Full measurement capability is maintained while charging. For ease of operation the control functions have been kept to a minimum and are clearly marked. It is of course direct reading, warning LEDs illuminate when an open circuit lead condition is detected. Over range and low battery indication is also provided. The DO4A is supplied ready for immediate use with battery, mains cord and measuring leads, no extras are normally necessary. The 15mm LCD provides easy viewing and the instrument can be used in any position for many and varied applications. The test leads provided have a length of 1 metre with spade tags for connection to the ohmmeter terminals. They are terminated in combined current and potential probes that will accept conductor diameters up to 0.24in.

KEY FEATURE	DO4A
True 4 wire measurement eliminates lead resistance errors	■
6 push button ranges 40 milli ohm... 4 kilo ohm with long scale length	■
10 micro ohm resolution on 40 milli ohm range	■
Input protection up to 415 Volts rms	■
Zero control thermal E.M.F. compensation	■
Digital calibration	■
Mains / rechargeable battery operation	■
Open circuit lead warning	■
Rugged industrial maintenance free design	■
Universal mains supply 100 / 200 / 220/ 240 Volts +10% - 13%	■



# DO4A SPECIFICATIONS

Range	Resolution	Typical Current	Accuracy @ 20°C ±5°C 1 year	Temperature Coefficient/°C
4kΩ	1Ω	100μA	±(0.05% Rdg +0.02% FS)	30ppm Rdg + 1ppm FS
400Ω	100mΩ	1mA	± (0.05% Rdg +0.02% FS)	30ppm Rdg + 1ppm FS
40Ω	10mΩ	10mA	± (0.05% Rdg +0.02% FS)	30ppm Rdg + 1ppm FS
4Ω	1mΩ	10mA	± (0.05% Rdg +0.03% FS)	30ppm Rdg + 4ppm FS
400mΩ	100μΩ	10mA	± (0.05% Rdg +0.05% FS)	30ppm Rdg + 25ppm FS
40mΩ	10μΩ	100mA	± (0.05% Rdg +0.05% FS)	30ppm Rdg + 25ppm FS

## Measurement

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

## Display

0.6in LCD 4000 count with automatic decimal point and polarity indication

## Ranges

6 push button selected with LED indication

## Terminals

0.2in binding posts accept spade tags and 4mm banana plugs

## Working Temperature

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

## Storage Temperature

-20°C to +50°C

## Mains Supply

100/120/220/240V +10% to 13%  
47Hz to 63Hz 20VA

## Safety

EN 61010-1 EMC-EN 61236

## Dimensions

8.5in x 9.8mm x 0.3in (W H D) approx  
1/2 19" rack 2U high  
1.5ft x 14.73in x 8.5in packed in carton

## Mass

7.7lbs approx. 9.9lbs packed in carton

## Auto Zero

Permits the automatic zero of amplifiers and external circuits, eliminating errors due to thermal E.M.F.

## Protection

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

## Calibration

Digital security key protected

## Battery

6V 2.8Ah sealed lead acid battery with built-in charger. 14 hour typical operating time on lowest range, 28 hours typical on other ranges. Internal charger and automatic switch off

CODE ▾	ITEM ▾	DO4A OPTIONS
C02	1 metre cable clamp with metal base for the precise measurement of 3.3ft cable samples 0.1...100mm <sup>2</sup>	
C02A	1 metre cable clamp with metal base for the precise measurement of 3.3ft cable samples 1...1000mm <sup>2</sup>	
C03	1 metre cable clamp with water bath for the precise measurement of 3.3ft cable samples 1...1000mm <sup>2</sup>	
CB01	Carrying bag	
HS01	Duplex handspikes with 9.8ft lead length	
HS02	Duplex handspikes with 9.8ft and 49.2ft lead length	
LS03	Lead set with 2 x 9.8ft lead leads terminated in large Kelvin clips type KC3	
LS04	Lead set with 9.8ft and 49.2ft 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	Lead set with 3.3ft leads terminated in miniature Kelvin clips type KC2	
MTS2	Calibration standard	