

DO7E

RUGGED DIGITAL MICROHMMETER FOR LOW RESISTANCE MEASUREMENT

The DO7e is a very rugged yet compact and portable digital micro ohmmeter for the measurement of low resistance. Using a rechargeable sealed lead acid battery with built-in charger, the DO7e is capable of measuring with a current of 10 Amps on the lowest range. The DO7e has been designed with the latest solid state and microprocessor techniques to ensure the very best in measurement, reliability and features. Automatic range selection, forward and reverse current measurements with auto average and a remote start socket are all included as well as an energy saving power down mode.

| KEY FEATURE | DO7E |
|--|------|
| True 4 wire measurement eliminates lead resistance | ■ |
| 6 push button ranges 6 milli ohm to 600 ohm | ■ |
| Resolution 1 micro ohm on 6 milli ohm range | ■ |
| Auto ranging | ■ |
| 10 Amp measuring current on lowest range | ■ |
| 0.8" LED Display daylight viewable | ■ |
| Input protection up to 415 Volts rms | ■ |
| Forward and reverse current measurement | ■ |
| Auto average of forward and reverse measurement | ■ |
| Auto power off | ■ |
| Mains / rechargeable battery operation | ■ |
| Digital calibration pass code protected | ■ |



DO7E SPECIFICATIONS

| Range | Resolution | Typical Current | Accuracy at 20°C ±5°C, 1 Year | Temp Coefficient/°C |
|-------|------------|-----------------|-------------------------------|-----------------------|
| 600Ω | 100mΩ | 1mA | ±(0.25% Rdg +0.05% FS) | 40ppm Rdg + 30ppm FS |
| 60Ω | 10mΩ | 10mA | ±(0.25% Rdg +0.05% FS) | 40ppm Rdg + 30ppm FS |
| 6Ω | 1mΩ | 100mA | ±(0.25% Rdg +0.05% FS) | 40ppm Rdg + 30ppm FS |
| 600mΩ | 100μΩ | 1A | ±(0.25% Rdg +0.05% FS) | 40ppm Rdg + 30ppm FS |
| 60mΩ | 10μΩ | 1A | ±(0.25% Rdg +0.05% FS) | 40ppm Rdg + 30ppm FS |
| 6mΩ | 1μΩ | 10A | ±(0.25% Rdg +0.05% 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

Binding posts accept 6mm bare wires and 4mm banana plugs (4mm safety sockets)

Working Temperature

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

Storage Temperature

-20 to +50°C

Mains Supply

115/230 Volts +10%-10%
47 to 63Hz 20VA

Safety

EN 61010-1 EMC - EN 61236

Dimensions

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

Mass

6kg approx

Protection

415 Vrms maximum at input terminals

Calibration

Digital Pass code protected

Battery

Sealed lead acid battery with built-in charger. Greater than 1000 measurements on lowest (10A range) and 20 hours on other ranges from a fully charged battery

Average

Automatic average and display of measurement with forward and reverse current

| CODE | ITEM | DO7E OPTIONS |
|---------|---|--------------|
| CB03 | Lead bag attaches to lid of DO7e must be ordered with DO7e | |
| D07-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 suitable for DO7 and DO7e | |
| 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 metres and 15 metres lead length terminated in large Kelvin clips type KC3 | |
| MTS2 | Calibration standard | |
| CHO1 | Concentric handspikes | |