

# DO7010

## Rugged portable micro ohmmeter for low resistance measurement

The DO7010 is a very rugged and very compact, portable digital ohmmeter for the measurement of low resistance. Using rechargeable and replaceable NiMh batteries with external charger, the DO7010 is capable of measuring with a current of 1 and 10A on all except the highest range.

The DO7010 has been designed with the latest solid state and microprocessor techniques to ensure the very best in measurement reliability and features. The LCD graphic display panel gives full information regarding the measurement configuration, and a single measurement start button ensures that the operation is simple and easy to use.

The measurement may be triggered when the measurement leads are applied to the device under test, ensuring fast single-person operation. The data-logging function also permits up to 1,000 date and time stamped readings to be stored.



### Key Features

- True 4 wire measurement eliminates lead resistance errors
- 4 ranges 6m $\Omega$  to 6 $\Omega$
- Resolution 1 $\mu\Omega$  on 6m $\Omega$  range
- Graphics Display with backlight
- 3 languages (English, French, German)
- 1 and 10A measuring current even on the 600m $\Omega$  range
- Forward and reverse current measurement
- Auto average of forward and reverse measurement
- True zero offset
- Built in test resistor for confidence check
- Data logging with up to 1000 readings stored with date and time stamp
- Hi-Lo limits with audible and visual warning
- Automatic measurement trigger when leads are connected to DUT
- Small size and light weight <4Kg
- RS232 interface with option remote terminal to enable operation up to 15m distance
- Rechargeable NiMh batteries with charge indicator and easily replaceable battery pack

### Ideal For

- Aerospace
- Automotive
- Military
- Manufacturing
- Utilities, electrical, water and gas

[www.seaward.co.uk/DO7010](http://www.seaward.co.uk/DO7010)

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## Technical Specifications

| Range | Resolution | Typical Current | FSV                  | Accuracy at 20°C±5°C 1 year |
|-------|------------|-----------------|----------------------|-----------------------------|
| 6Ω    | 1mΩ        | 100mA/1A        | ±(0.1% Rdg +0.1% FS) | 40ppm Rdg + 30ppm FS        |
| 600mΩ | 100μΩ      | 1/10A           | ±(0.1% Rdg +0.1% FS) | 40ppm Rdg + 30ppm FS        |
| 60mΩ  | 10μΩ       | 1/10A           | ±(0.1% Rdg +0.1% FS) | 40ppm Rdg + 30ppm FS        |
| 6mΩ   | 1μΩ        | 1/10A           | ±(0.1% Rdg +0.1% FS) | 40ppm Rdg + 30ppm FS        |

### Measurement

4 Terminal Kelvin/Thomson principle eliminates errors due to lead resistance.

Open circuit measurement voltage = 5VDC

### Display

240 x 64 dot graphics LCD with backlight

### Ranges

4 ranges with auto range mode. Two selectable measuring currents for each range

### Terminals

The measurement leads are connected via Jaeger connectors and a full range of lead configurations are available

### Working Temperature

0 to +50°C rel. humidity up to 80% non condensing

### Storage Temperature

-20 to +50°C

### Safety

Conforms to EN 61010-1, Main instrument Class III (SELV), Battery pack Class III (SELV) and external mains charger Class II

### Battery

The DO7010 is supplied with battery fitted. The batteries are NiMh and the charger is external. The battery pack may be removed from the front panel when discharged and a replacement charged pack inserted. This ensures minimum down-time when making measurements

### Lead Sets

We offer a wide variety of lead sets with 3 sizes of Kelvin clip or handspikes. Lead lengths may be up to 100m total loop

### Data Logging

The DO7010 has data logging modes. The first will store each reading with record number date and time. The second is a sequence mode which will store values with operator ID, serial number etc

## General Specifications

| DO74A Plus Optional Accessories |                                                                               |             |
|---------------------------------|-------------------------------------------------------------------------------|-------------|
| Part Number                     | Item                                                                          | Part Number |
| DO7010-BP                       | Additional battery pack                                                       | 100123      |
| HS01-7010                       | Duplex handspikes with 3m lead length                                         | 190052      |
| HS02-7010                       | Duplex handspikes with 3 and 15m lead length                                  | 190056      |
| LS03-7010                       | Lead set with 3m leads and terminated with large Kelvin clips type KC3        | 190043      |
| LS04-7010                       | Lead set with 3 and 15m lead length terminated in large Kelvin clips type KC3 | 190047      |
| MTS3                            | Calibration Standard                                                          | 930242      |
| RSL04                           | RS232 interface cable 1m                                                      | 920069      |

### Dimensions

390 x 160 x 270mm / 15 x 6.3 x 11" (w x h x d) approx

### Mass

4kg / 9lbs approx

### Services

1 year warranty (subject to product registration with Seaward. Visit [www.seaward.co.uk/register-product](http://www.seaward.co.uk/register-product))

Service and calibration by Calibrationhouse. Go to [www.calibrationhouse.com](http://www.calibrationhouse.com) for more information.

### Part Number

930217