

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 10 Amps 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. A remote hand terminal is also available which will fully control the DO7010 at a distance of up to 15 metres. The data logging function also permits test sequences to be downloaded from an Excel spreadsheet and the measured results uploaded back to the spreadsheet.

KEY FEATURE

KEY FEATURE	DO7010
True 4 wire measurement eliminates lead resistance errors	■
4 ranges 6 milli ohm to 6 ohm	■
Resolution 1 micro ohm on 6 milli ohm range	■
Graphics Display with backlight 3 languages	■
1 and 10 Amp measuring current even on the 600 milli ohm 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 15 metres distance	■
Rechargeable NiMH batteries with charge indicator and easily replaceable battery pack	■



DO7010 SPECIFICATIONS

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

Measurement

4 Terminal Kelvin/Thomson principle eliminates error 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°C 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 111 (SELV), Battery pack Class 111 (SELV), external mains charger Class 111

Dimensions

390mm x 160mm x 270mm (W H D) approx

Mass

4kg approx

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

Remote Terminal

The remote terminal emulates the DO7010 front panel and all functions and readings are fully controllable up to 15 metres from the ohmmeter. Connection is made through the RS232 terminal

Lead Sets

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

CODE	ITEM	DO7010 OPTIONS
DO7010 BP	Battery pack	
DO7010 REM	Remote terminal emulates the DLRO710 front panel and permits the operation remotely up to 15 metres. Supplied complete with 15 metre RS232 cable	
HS01 710	Duplex handspikes with 3 metre lead length	
HS02 710	Duplex handspikes with 3 and 15 metre lead length	
LS03 710	Lead set with 3 metre leads and terminated with large Kelvin clips type KC3	
LS04 710	Lead set with 3 metres and 15 metres lead length terminated in large Kelvin clips type KC3	
MTS3	Calibration Standard	
REMT015	Remote terminal cable 15 metres	
RSL04	RS232 interface cable 1 metre	
XL 710	Excel spread sheet software permits upload of measurement parameters and download of stored values	