

# CM100-2 Conductivity Meter



The CM100-2 Conductivity Meter was designed specifically for the measurement of electrolyte leakage from plant tissue.

The advantages of the CM100 over single cell conductivity meters are that multiple, nearly simultaneous, measurements can be made on one hundred individual specimens. This allows the various leakage rates to be quickly and directly compared under the same conditions in a spreadsheet.

The CM100 is not intended to replace single cell conductivity meters for applications which may require higher accuracy measurements.



The CM100 can take single or multiple, automatic, measurements of the conductivity of 100 cells and the user has the flexibility to choose the measurement parameters.

## The CM100 has many unique Features and Benefits:



- A hinged lid, with gas struts, keeps the workspace required to a minimum.
  - The probes are housed in a recess and so are protected from mechanical damage.
  - Two sample tray sizes: 1.5 and 3.5 ml wells.
  - The measurements are transferred to a PC using a USB mass storage device (memory stick/ flash drive/ pen) in CSV format compatible with Excel<sup>®</sup> and other software.
  - Only 1.5ml of water is required per small well enabling accurate measurements on small samples of plant material.
  - The power supply is 12V DC so the unit can be powered from a 12V battery or solar panel for field use. A mains power adaptor for 110/ 220 VAC operation is supplied.
  - A robust housing made from aluminium for a long service life.
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- The CM100 has a large (5.7 inch) built in touch display and is stand alone, so it does not require a PC for operation, ensuring it will not become obsolete as new Windows<sup>®</sup> operating systems are released.
  - The electrodes are enclosed in an epoxy housing so the stem of the electrodes are insulated, making the conductivity reading independent of the water level in each well (assuming there is sufficient water to fully immerse the electrode).
  - Temperature compensation (conductivity changes by 2% / °C) using a temperature sensor in the 101st well to measure the actual water temperature, makes measurements taken at different temperatures directly comparable. The measurements are referenced to 25 °C.

**The CM100-2 is a high quality instrument designed with the direct input of practising seed scientists which combines sophisticated features with ease of use.**

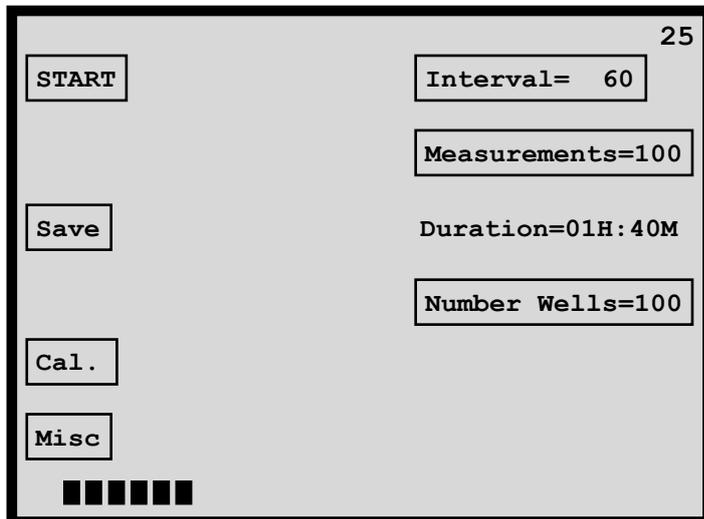
The CM100-2 has a user friendly menu system.

The right hand side of CM100-2 screen shows the measurement parameters.

Touching the required parameter opens a numeric keypad allowing a new value to be entered.

The test **Duration** is automatically updated.

When measurements are in progress a **Display** option is added to the screen allowing the user to view all the measurement values in real time.



### The CM100-2 Conductivity Meter is supplied with the following:

- One of 1.5 ml sample tray.
- One of 3.5 ml sample tray.
- One of touch screen stylus.
- One of colour Operation Manual.
- One of Mains power adaptor.
- One of USB Flash Drive.

Number of cells	101 (10*10 matrix) + one for temperature compensation
Free volume of wells	1.5 ml/ 3.5 ml (both sizes are supplied)
Electrodes	Stainless steel
Measurement range	AUTO ranging
Conductivity range	1uS – 999uS
Measurement frequency	1kHz
Temperature compensation	2% / °C (over the range of 15-35°C)
Reference temperature	25°C
Operating temperature	15-35°C
Storage temperature	0-50°C
Measurement interval	1 to 60 minutes
Number of measurements/ cell	1 - 100
Time to measure 100 Cells	< 30 seconds
Display	5.7" Graphic LCD with backlighting
Internal storage	10 000 measurements (100*100)
Case	Aluminium
Dimensions	330*342*135mm (W*D*H)
Weight	7.5kg
Finish	Epoxy paint
PC interface	USB mass storage device (memory stick/ flash drive/ pen) Excel ® CSV file format
Power supply	12V @ 250mA. A mains power adaptor for 110/ 220 VAC operation is supplied.

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Enquiries:

**Reid & Associates**

481 Manning Road,  
Glenwood,  
Durban,  
4001  
SOUTH AFRICA.

PH: +27 31 205 3329  
FAX: +27 86 629 9747

E-mail: [info@reid.co.za](mailto:info@reid.co.za)  
Web site: <http://www.reid.co.za>

