

# Elcometer 331<sup>2</sup> Half-Cell Meters, Model H & HM



Elcometer 331<sup>2</sup> Half-Cell Meter

**At a glance:**

Accurately measure the condition and potential corrosion of rebars

Available as an entry level gauge or with data-logging capabilities.

Fully interchangeable Half-Cell kits – no need to return to factory.

Can be used in accordance with:	
ASTM C876	TR60
DGZFP:B2	UNI10174

These easy to use Half-Cell gauges measures the condition and potential corrosion of rebars and steel structures within concrete.

When corrosion occurs the ferric oxide protective layer surrounding the concrete breaks down allowing an electrochemical reaction between the steel and the concrete.

In the Half Cell test, a reference electrode is passed over the surface of the concrete and the potential voltage difference is recorded. These potential voltage readings show where corrosion is likely to be, or is currently present.

The Elcometer 331<sup>2</sup> Half-Cell Meter is available in two models, Model H and Model HM.

- **Elcometer 331<sup>2</sup> Model H:**  
Entry level gauge without memory which allows users to measure the Half Cell Potential in concrete structures.
- **Elcometer 331<sup>2</sup> Model HM:**  
Supplied with memory and allows users to store up to 240,000 readings in either linear or grid batches.

- **Large, easy to read backlit display:**  
For easy viewing in dark environments.
- **Single handed operation:**  
Most functions can be accessed & controlled through 4 simple keys.
- **Intuitive menus in multiple languages:**  
Allows use straight out of the box
- **Rechargeable battery supply:**  
Battery packs can be charged inside or outside the gauge.
- **Ergonomically shaped case:**  
For ease of use and comfort, with a gentle curve to fit snugly against the hip.
- **Powerful CoverMaster<sup>®</sup> Software (supplied with the Model HM):**  
Ultimate data management tool to store Half-Cell readings and produce professional reports quickly and easily.

**Concrete Covermeters**

Locating steel reinforcement bars and metal pipes is essential in the construction and maintenance of structures. Damage caused when a drill or a fastener makes contact with a pipe is costly. A drill making contact with rebars or tendon ducts however, not only destroys the drill bit, but can lead to serious structural damage.

Before carrying out any maintenance work, it is vital to identify the location, orientation and depth of sub-surface metalwork. It is also useful to establish the condition of the metal work and assess the corrosion potential, so maintenance work can be scheduled accordingly.

Elcometer have six covermeters in their range, The Elcometer 331<sup>2</sup> H & HM are Half-Cell only instruments, the Elcometer 331<sup>2</sup> Model B is a Covermeter only and the Elcometer 331<sup>2</sup> Models BH, SH and TH incorporate the Half-Cell technology required to assess potential corrosion of rebar. Finally, the THD model can accurately locate stainless steel rebar.

Elcometer offer a comprehensive range of concrete inspection equipment to meet all of your requirements.

FEATURES		
	Model H	Model HM
Menu-driven backlit graphical user interface	•	•
Weather proof to IP65	•	•
Multiple languages	•	•
Memory - multiple linear and grid batches, up to 240 000 readings		•
Text fields for input of user data in each batch		•
Date and time stamping		•
Statistical analysis of readings and batches		•
Alarm if reading is outside limits		•
Transfer readings and statistics to a computer		•
CoverMaster® software for batch setup, data transfer and reporting		•
Part numbers	W331H---*	W331HM--*

Replace \* with 1, 2 or 3 to complete part number. 1=240V UK, 2=220V Euro, 3=110V US

## Packing Lists

**Elcometer 331<sup>2</sup> Half-Cell Meter, Model H:** Half-Cell Meter, rechargeable battery pack and battery charger, 25m extension cable on spool, 1.7m red rebar connecting cable with connecting clip, 1.7m black half-cell connecting cable, earphone, shoulder strap, plastic carry case and operating instructions.

**Elcometer 331<sup>2</sup> Half-Cell Meter, Model HM:** Half-Cell Meter, rechargeable battery pack and battery charger, 25m extension cable on spool, 1.7m red rebar connecting cable with connecting clip, 1.7m black half-cell connecting cable, earphone, shoulder strap, plastic carry case, CD containing EDTS+ and CoverMaster® Software, data transfer cable and operating instructions.

*(Half-Cell Probes are not included as standard and must be ordered separately).*



### Half-Cell Probes

Consisting of either a copper electrode in a copper sulphate solution (Cu/CuSO<sub>4</sub>) or a silver electrode in a silver chloride solution (Ag/AgCl), each Half-Cell is a sealed unit so there is no need to mix chemicals on site. Every Half-Cell Probe is guaranteed for 5 years.

Part Number:    Cu/CuSO<sub>4</sub> – TW33119668-1  
                          Ag/AgCl – TW33119668-2

## Spares & Accessories

Part Number	Description
TW33119668-1	Half-Cell Probe, Copper / Copper Sulphate (Cu/CuSO <sub>4</sub> )
TW33119668-2	Half-Cell Probe, Silver / Silver Chloride (Ag/AgCl)
TW33119683	Extension Reel 100m (325ft)
TW33119678	Extension Reel 25m (80ft)
TW33119677	Rebar Cable with Clip 1.7m (5.6ft)
TW33116983	Half Cell Connecting Cable 1.7m (5.6ft)
TW33119201	Straight Cable 1.8m (5.9ft)
TW33119199	Curly Cable
T99912220	Replacement Earphones

## Related products



Elcometer 331<sup>2</sup> with Half-Cell & memory

Elcometer 331<sup>2</sup> Covermeters with Half-Cell allow users to not only identify the location, orientation, depth and diameter of stainless steel rebar, but also the potential for corrosion all in one easy-to-use gauge.

The gauges store up to 240,000 cover and Half-Cell readings side by side in their extensive memories. Available in models SH and TH, the Elcometer 331<sup>2</sup> Covermeter with Half-Cell is perhaps the most versatile and cost effective Covermeter on the market today.



Elcometer 331<sup>2</sup> B Covermeter

The Elcometer 331<sup>2</sup> Model THD is the only gauge on the market today that measures the thickness of concrete cover of both stainless steel rebars and metal pipes. Reporting the depth of the concrete, the location and orientation of the rebar or metal pipe, the covermeter can even determine the diameter of the rebar.



Elcometer 181 Concrete Test Hammer

The Elcometer 181 Concrete Test Hammer is a simple to use gauge consists of a spring loaded plunger which, when released, strikes the surface with fixed and constant impact energy. During the rebound stroke, the mass moves a pointer that indicates the maximum point of return and at the same time indicates a reference value called Rebound Number.

Elcometer has a wide range of products available for the concrete inspection process including rebar locators, concrete test hammers, surface contamination testing etc.

For further information contact Elcometer or visit [www.elcometer.com](http://www.elcometer.com)

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