



PM8500

Profometer Corrosion Potential

ONE WHEEL ELECTRODE



FOUR WHEEL ELECTRODE



PM8500



Profometer Corrosion potential



The Profometer Corrosion PM8500 is the most powerful half-cell solution for **rapid on-site mapping** of corrosion potential with corrosion scan and statistical views for immediate on-site data **interpretation, customizable and cumulative distribution and chipping graph views.**

Profometer Corrosion PM8500 is based on **“Half Cell Potential”**. It works by measuring the electrochemical potential difference between a reference electrode and a rebar embedded in the concrete

Profometer Corrosion PM8500 Standard kit includes PM8500 Sensor, Rod Electrode & Profometer App.

ROD ELECTRODE

The Profometer Corrosion PM8500 is offered in three electrode options, **“REL100 –Rod Electrode”**(Default), with additional options of **“WEL100–One Wheel Electrode”** & **“WEL400 –Four Wheel Electrode”**

REL100 –**Rod Electrode** provides **fastest spot measurement** with auto mode to **measure small areas and difficult to access spots**. Provided as part of supply (Default)

ONE WHEEL ELECTRODE

Additional Options:

WEL100 –**One Wheel Electrode** provides flexible and fast line and area scans to **measure horizontal, vertical and overhead medium areas.**

Ordering code: 392 60 002

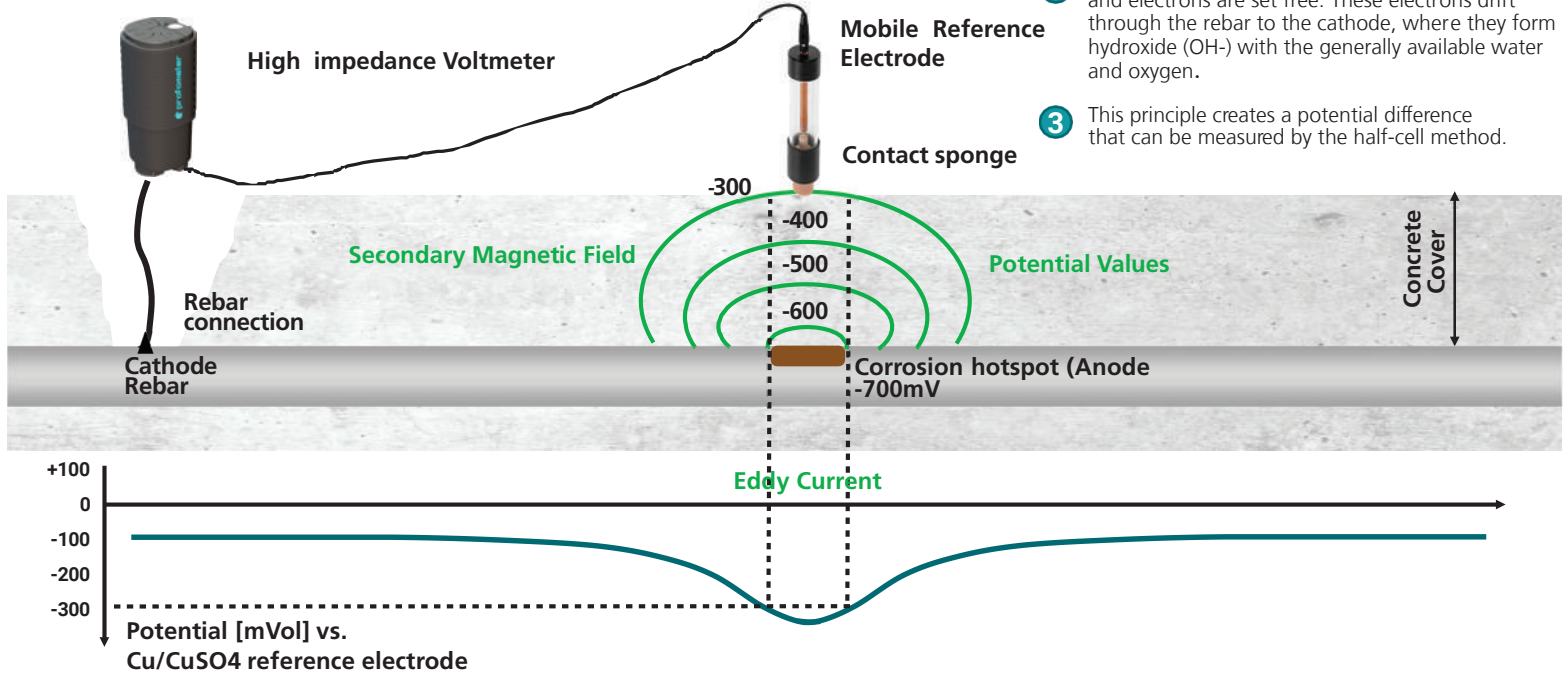
FOUR WHEEL ELECTRODE

WEL400 –**Four Wheel Electrode** provides flexible and fast area scans with adjustable **Four Wheel Electrode** to **measure large horizontal areas.**

Ordering code: 392 60 003

Profometer Corrosion potential

Half Cell Potential



Fixed and Flexible Grid for Spot Scan and Area Scan

SPOT SCAN using Rod Electrode



AREA SCAN using Wheel Electrodes



Unique flexibility for data acquisition

PM8500



Profometer Corrosion potential

Sensor Unit

- unique half cell potential sensor for spot and area mapping
- Wireless connectivity with display unit

Long autonomy

AA cells NiMh rechargeable
Battery life +8h

Wireless connection to iPad

Up to 4m
No disturbing cables
Ideal in poor access areas

USB-C PORT

Firmware Updates



Rugged Construction

Lasts longer, reduces replacement

Potential Plug

Connect the potential cable

Encoder Plug

Connect the encoder cable
(wheel electrodes)

Ground Plug

Connect the ground cable

REL100-Rod Electrode for PM8500

Used for

- Spot scan
- Fixed grid

Foam tip

Best accuracy prewetting the rod foam tip
Adjustable to all types of surfaces

Copper solution container

Replace copper solution at any time

Potential cable

Plug & Play connection with sensor



- Copper (Cu/CuSO₄) solution Rod Electrode
- Measure small areas and difficult-to-access spots
- 50m² / hour

Profometer Corrosion potential

WEL-100-One Wheel Electrode for PM8500

Recommended for large inspection areas such as Bridges.

- Copper (Cu/CuSO₄) solution Rod Electrode
- Measure small areas and difficult-to-access spots
- 50m² / hour

Robust Telescopic Rod

Allows fast and reliable measurements with constant pressure
Measure overhead and non-accessible elements

Sensor universal holder

Attach the sensor on the telescopic rod for free-hands measurement

Very stable wheel

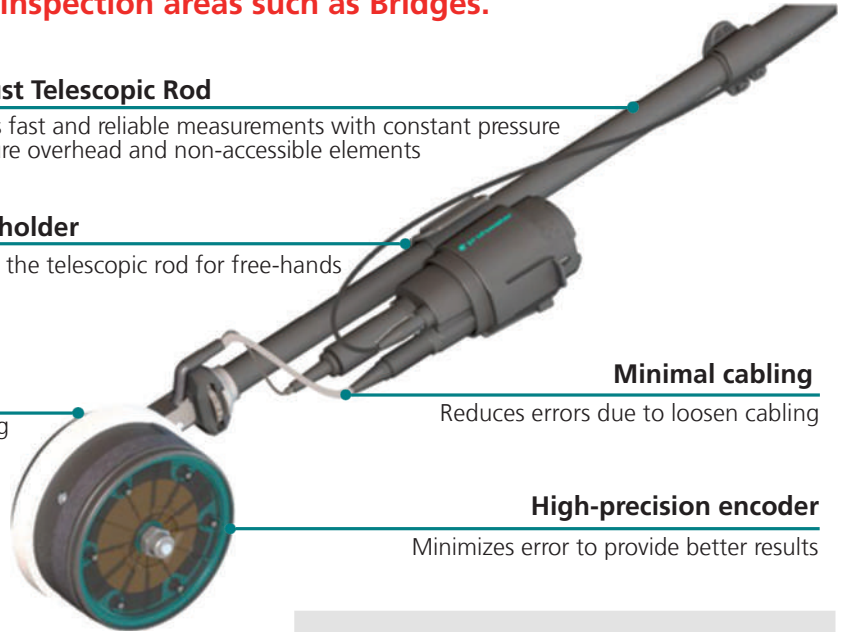
Improves the user flow while doing a line scan

Minimal cabling

Reduces errors due to loosen cabling

High-precision encoder

Minimizes error to provide better results



WEL-400-Four Wheel Electrode for PM8500

- Copper (Cu/CuSO₄) solution
- One Wheel Electrode
- Robust Telescopic Rod Adjustable wheel spacing (from 150mm to 250mm)
- Measure large horizontal areas 1800 m² / hour

Wheel electrode used for

- Lines scan
- Area scan
- Flexible / variable grids

Recommended for rapid inspection of large areas.

Robust Telescopic Rod

Allows fast and reliable measurements with constant pressure

Sensor universal holder

Attach the sensor on the telescopic rod for free-hands measurement

Minimal cabling

Reduces errors due to loose cabling

Robust housing

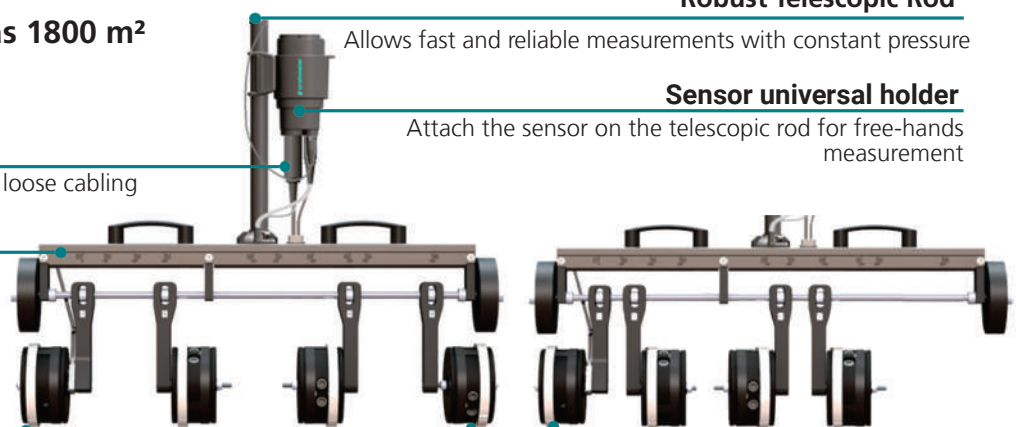
Lasts longer, reduces replacement

High-precision encoder

Minimizes error to provide better results

Adjustable wheel spacing

Allows to adapt to your needs to optimize for speed or resolution (from 150 – 250 mm)



Specification

Profometer Sensor Specification

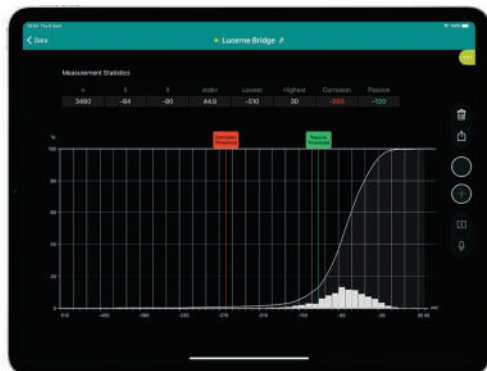
Display Unit	Any compatible Apple iPad (iOS 11.0 and higher)
Technology	Half cell potential
Measuring range	1st layer rebars
Resolution	+/-1mV
Measured quantity	Corrosion potential in millivolts(mV)
Voltage Measurement Range	-3000mV to + 3000mV
Input Impedance	100MOhm
Encode Accuracy	+/- 0.5 mm / 0.02 in + 0.78% of measured length Resolution: 3.3mm / 0.13 in (128 steps / rotation)
Max Scanning Speed	1m/s
Max Area Scan	50 x 50m
Operating Temperature	-10°C to 50°C
Connection	Wireless-Bluetooth
Dimension	Sensor unit: 127 x 59 x 56mm Rod electrode: 36mm x 155mm One-wheel electrode: 194 x 138 x 127mm Four-wheel electrode: 830 x 350 x 140mm
Weight	Sensor unit: 150g Rod electrode: 120g One-wheel electrode: 2000g Four-wheel electrode: 6900g
Battery	2 X AA NiMH batteries



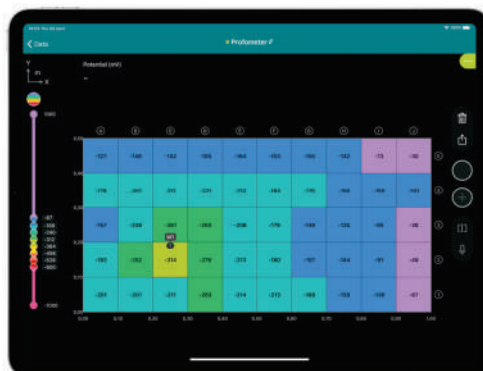
Specification

Profometer App Specification

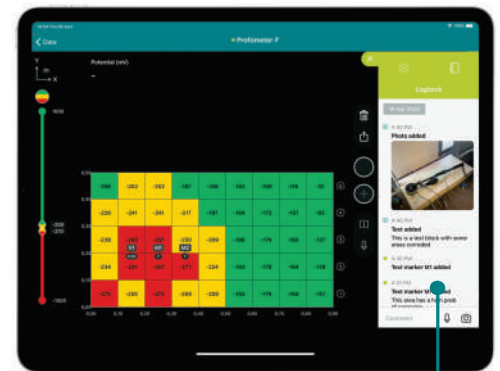
Measurement	- Basic Mode - Expert Mode - Spot Scan (rod electrode) - Line Scan (wheel electrode) - Area Scan (wheel electrode) - Fixed Grid (rod electrode) - Flexible and Variable Grid (Wheel electrodes) - Autosave mode (rod electrode) - Grid set up (Origin of coordinates; Grid size; Cell size; Direction of measurement; Pattern of measurement) - Delete and overwrite information (Cells; Lines; Whole scan) - Skipping data (cell: Lines, Fixed distance) - Pause and resume - Stop and start
Review Modes	- Potential View for displaying a heat map with the potential values - Statistic View - distribution and cumulative graph - Chipping graph view for displaying the corridor areas based on the analysis
Advanced Features	- Support for copper, silver, mercury and SCE calomel electrodes - Temperature correction - Zoom in and out
Calibration Features	Calibration of length
On-site Annotations	- Markers - comments and voice notes - Photos - Geolocation
Reporting	- Cloud connectivity - Workspace integration - Share via URL - Automatic Logbook - Raw data export - Instant report generation
Export Formats	- JPG (Screenshot) - PNG - CSV - HTML



Measurement statics



Heat map for potential values



Chipping graph View

Image of structure scanned



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**Quality
Management
System**

ISO 9001: 2015

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