

# Sigmat

## Advanced Eddy Current Conductivity Meter

**Technofour Sigmet** is a highly advanced hand-held instrument for measuring electrical conductivity of non-ferrous metals. Intuitive graphical user interface with a 5-inch capacitive touch screen simplifies operation at four test frequencies. Proprietary signal processing algorithms make Sigmet a very stable and reliable companion to the test technician. Sigmet bristles with unique smart features. Test traceability is maintained by logging user name, last calibration data and time-stamps.

### Smart Probe:

Each probe has a unique ID and has its own calibration profile embedded. It does not need to read its calibration data from an external file. This makes the probe easily field-replaceable without the need for returning the instrument to the factory. Each probe has a built-in temperature sensor which is used to apply automatic temperature compensation to each reading.

### Smart Logging:

Sigmat offers many options for logging conductivity readings. Each stable reading can be logged, specific readings can be logged as required by the user or logging can be done at fixed time intervals. All user-calibration data is logged with time stamps in an SQL table. Individual readings are also logged with time stamps in SQL database with reference to the current calibration record.

### Smart Data:

Records in the database can be exported simultaneously in two formats: As .csv files for importing into various spreadsheet applications, and as .sql file for import into any relational database application. Calibration history is also exported similarly. There is thus no need for a separate application to be run on a PC for this purpose.

### Smart Charging:

Sigmat is designed to accept all kinds of commonly used chargers. From regular chargers, fast chargers, QC 3.0 chargers or even power banks. At a pinch it can also be charged while connected to a PC's USB port. Sigmet keeps track of state of charge and provides an estimate of remaining time before the battery needs to be connected to a charger.

### Smart Display:

The 5-inch capacitive touch display can be put to sleep after a set time of inactivity. It will activate again on touching the screen or when the probe is placed on a metal surface for conductivity measurement. Brightness can be adjusted as required for given ambient illumination.

### Smart Connectivity:

Sigmat's USB-C connector has multiple roles. Apart from charging the built-in battery, it can connect with a PC in device mode where a folder can be browsed to read and copy exported data. A USB flash drive can also be connected in OTG mode for data transfer too.

### Smart readout:

Apart from the on-screen display, Sigmet also announces the reading verbally. This allows measurements in hard to access locations.



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## SIGMET TECHNICAL DATA

### Test Frequencies

60, 120, 240 and 480 KHz

### Measuring Range

1% IACS to 110% IACS

### Distance Compensation

Up to 0.5mm

### Measuring Accuracy

+/- 0.5% of reading +/- 0.1 IACS  
At 60KHz, 20 deg C

### Measuring Resolution

0.1% IACS in 10% to 110% range  
0.01% IACS in 1% to 9.99% range

### Display

5-inch capacitive touch LCD

### User Interface

Touch controlled graphical UI  
Virtual Keyboard

### Connectivity

USB-C connector for charging  
OTG capability for external storage  
Device mode connectivity with PC

### Probe Connectors

10-pin LEMO for test probe  
LEMO-0 for external temperature sensor

### Temperature Compensation

Integral sensor in test probe  
Optional external sensor

### Calibration Reference

Two coupons supplied with the unit  
Typically around 23% IACS and 100% IACS

### Data Storage

Built-in compact flash

### Data Export

.Sql format for importing to databases  
.Csv for importing to spreadsheets

### Power Source

Lithium Polymer rechargeable battery

### Operating time on full charge

More than 8 hours at typical brightness

### Charging Options

Any cellphone charger, Power bank or USB

### Operating System

Linux

### Weight

450 gm



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