

ECMEASURE TCM

Trainable eddy current measurements for application-specific inspection tasks



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Trainable eddy current measurement for application-specific inspection tasks. The ECMEASURE TCM module enables application-specific eddy current measurements based on reference samples. Instead of relying on predefined calibration functions, the system learns from known reference values and automatically generates the correlation curve from real eddy current signals. This allows users to implement customized measurement tasks quickly and directly on the device.

Typical applications include coating thickness measurement, residual wall thickness determination or ferrite content analysis. Because the evaluation is based on trained reference samples and real measurement signals, reliable and repeatable results can be achieved even for demanding inspection tasks.

The setup follows a structured workflow. First, the inspection task is configured in the DEFECTOSCOP App to determine the optimal test parameters such as frequency, gain and signal characteristics. Afterwards, the measurement task is defined in ECMEASURE by selecting the signal type and the desired unit. The system is then trained using reference samples with known values. Based on these reference measurements, the TCM automatically calculates the correlation curve used for the final evaluation.

YOUR ADVANTAGES AT A GLANCE

Trainable measurement system: Generates application-specific correlation curves directly from reference samples.

Flexible eddy current measurement applications: Suitable for coating thickness, residual wall thickness, ferrite content and other customized inspection tasks.

Simple configuration and training workflow: Measurement setup and system training are performed directly on the TCM – no programming required.

Reliable and repeatable measurement results: Evaluation is based on real eddy current signals and trained reference values.

Fully integrated into the TCM platform: Uses the same hardware, user interface and workflow as other TCM inspection applications.

NORMS

DIN EN ISO 15548: Standard defining performance characteristics and verification of eddy current testing instruments to ensure reliable and reproducible measurements.

ACCESSORIES



STANDARD TCM ARRAY PROBES
Versatile Eddy Current Array Probes for Efficient Surface Inspection



TCM STANDARD PROBES
Flexible probe solutions for precise eddy current inspection with the TCM



HRO HAND ROTATING UNIT
High-resolution borehole inspection with rotating eddy current probes



SIGMA TEST PROBES
Flexible conductivity probes for precise testing of non-ferromagnetic metals



REFERENCE STANDARD CONDUCTIVITY MEASUREMENT
Reference standards for checking and setting up conductivity measurement



REFERENCE CRACK STANDARD - FLAT (PLATE)
Artificial crack defect standard for setting and verifying test sensitivity



RECALIBRATION OF MOBILE PRODUCTS
Recalibration guarantees the accuracy and quality of your test and measurement values



TCM DOCKING STATION
From mobile inspection device to full workstation setup



TCM SHOULDER STRAP
For comfortable hands-free operation of the TCM during mobile inspection tasks



TCM SPARE BATTERY
Extend the operating time of your TCM and stay productive even during long inspection workflows.



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