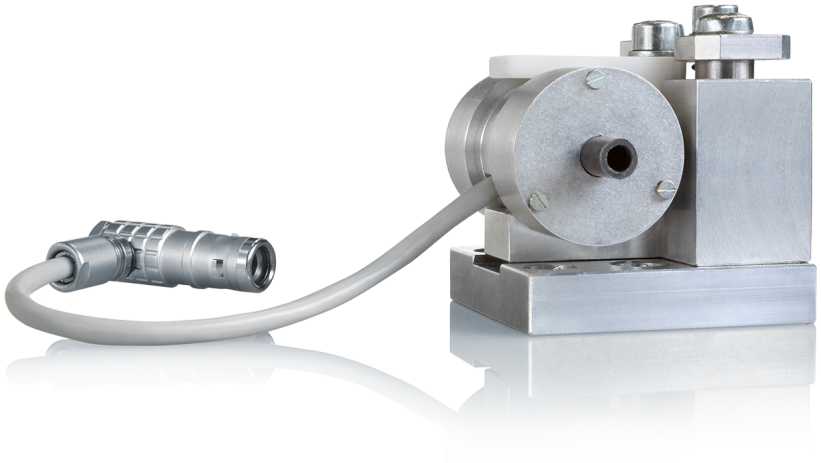
FOERSTER

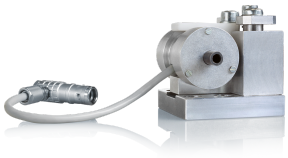
DEFECTOMINI

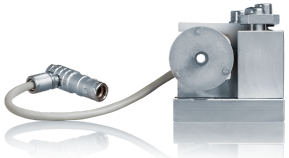
For eddy current testing of wires and tubes from 0.3 to 4 mm

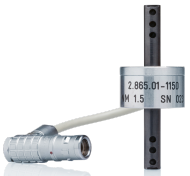


DEFECTOMINI

For eddy current testing of wires and tubes from 0.3 to 4 mm







Precision down to the smallest detail. The DEFECTOMINI sensor system was specifically developed for nondestructive eddy current testing of wires and tubes with diameters from 0.3 to 4 mm. Its high test sensitivity enables the detection of even the smallest surface defects. Applications range from high-quality stainless steels for medical technology (in coils for pacemakers for instance) to precious-metal wires for the chemical and electrical industries.

The system operates with encircling coils: differential coils detect transverse and point defects with high sensitivity, while the absolute winding can additionally be used to detect longitudinal defects. Permanent magnetization also enables the inspection of ferromagnetic materials. The resulting DC field magnetization reduces interference caused by variations in material permeability.

The compact, modular design enables direct integration into standard wire drawing machines. Interchangeable test coils as well as static and flexible holders allow the system to be adapted to different testing tasks. For wire testing, optional roller guides provide precise, vibration-free material guidance and allow the test coil to compensate for changes in the wire position. The system can also be optionally equipped with EMAG Mini for demagnetization after testing.

YOUR ADVANTAGES AT A GLANCE

High test sensitivity: Detection of even the smallest surface defects in wires and tubes from 0.3 to 4 mm

Different defect types: Differential coils for transverse and point defects and an absolute winding for detecting longitudinal defects

Wide range of materials: Testing of conductive metals, including ferromagnetic materials, using permanent magnetization

Precise material guidance: Optional roller guides provide vibration-free guidance and allow the test coil to self-adjust to the wire

Compact integration: Direct integration of the sensor system into standard wire drawing machines

Modular design: Interchangeable test coils and static or flexible holders for different testing tasks

NORMS

DIN EN ISO 15549: Describes the general bases of eddy current testing.

TECHNICAL INFORMATION

TEST METHOD:	Nondestructive surface testing using the eddy current method
TEST MATERIAL:	Ferromagnetic, austenitic and non-ferromagnetic wires, tubes and bars
TEST MATERIAL DIAMETER:	0.3 – 4 mm
TYP. DEFECT DEPTH / DEFECT WIDTH:	From 0.05 mm / 0.1 mm
TEST FREQUENCY RANGE:	10 kHz – 1 MHz
TEST COIL DIAMETER:	0.5 – 4.5 mm
MAX. FIELD STRENGTH AT TEST OBJECT:	200 kA/m
TEST OBJECT TEMPERATURE:	0 – 80 °C
AMBIENT CONDITIONS:	Preferably free from dust and scale
AMBIENT TEMPERATURE:	5 – 45 °C
MAX. RELATIVE HUMIDITY:	85%
WEIGHT:	Approx. 0.5 kg without demagnetization / approx. 1.5 kg with demagnetization
POWER SUPPLY:	230 V, 50 Hz (EMAG Mini)
COMPATIBLE FOERSTER TEST INSTRUMENTS:	DEFECTOMAT DI / CI / DA

FOERSTER

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The FOERSTER Group is represented by subsidiaries and representatives in over 60 countries worldwide. You can find a complete overview on our website.

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