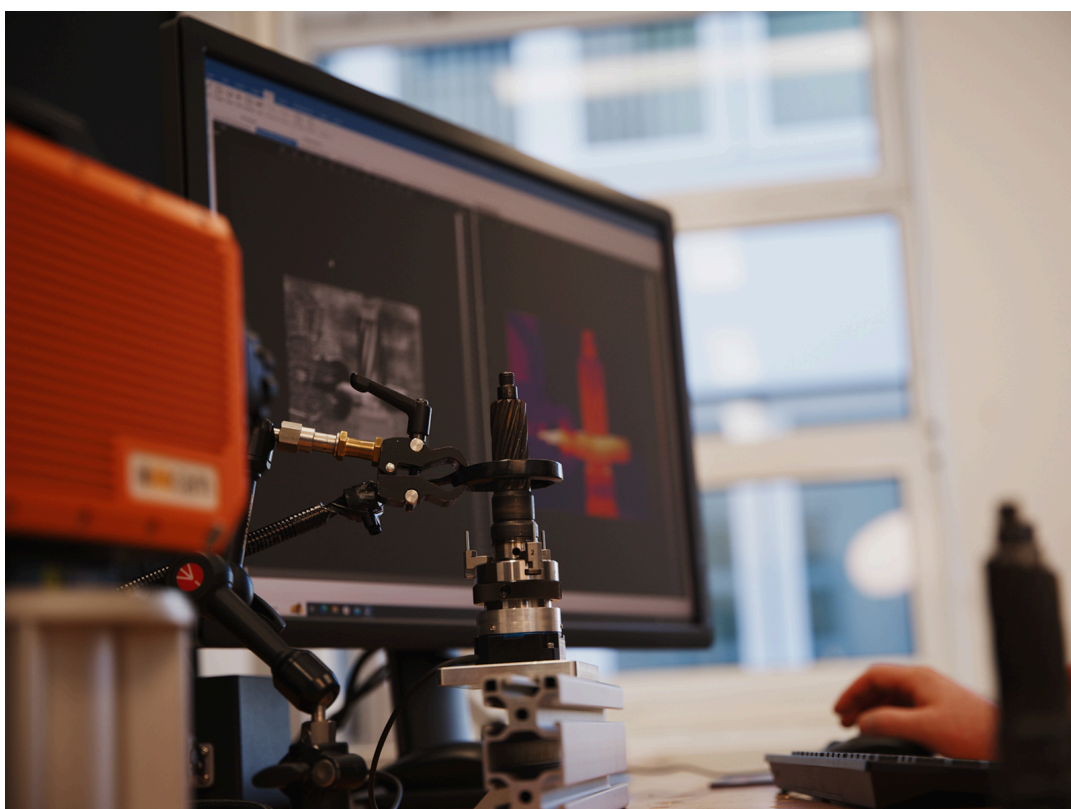




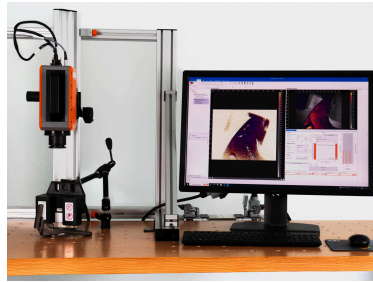
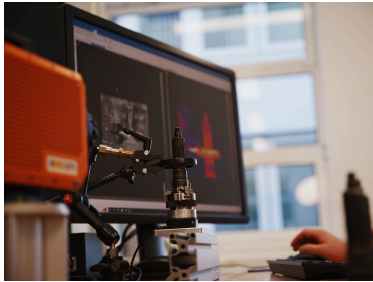
ITVIS PRODUCT FAMILY

Induction thermography for fast crack and weld inspection



ITVIS PRODUCT FAMILY

Induction thermography for fast crack and weld inspection



Inspect metallic components without contact and within seconds. ITvis systems use induction thermography for fast non-destructive inspection of metallic and hybrid components. High-frequency electromagnetic fields generate targeted heat within the inspection area. Cracks, laps and defects in welded, soldered or joined components influence the current density and heat flow and can be visualized using an infrared camera.

Medium High Frequency (MHF) and High Frequency (HF) systems combined with different inductors allow the excitation to be precisely adapted to the component, defect type and inspection task. Line, point or crack-specific heating supports both joint inspection and highly sensitive detection of fine surface defects. ITvis is therefore suitable for flexible inspection tasks as well as fast automated inline processes.

For more information about ITvis, visit the [edevis website](https://www.edevis.com).

YOUR ADVANTAGES AT A GLANCE

Very short inspection times: Inductive heating enables fast thermographic inspection for automated production processes

High inspection sensitivity: Cracks, laps and defects in welds, solder joints and other joints become visible through changes in current density and heat flow

Flexible frequency ranges: MHF and HF systems allow adaptation to different defect depths and inspection tasks

Flexible excitation: Line, point and crack inspection inductors enable adaptation to different component geometries and joints

Non-contact heating: Energy is generated electromagnetically within the component without direct contact with the inspection surface

Inline-ready system design: ITvis can be integrated into automated production and quality assurance processes

TECHNICAL INFORMATION

INSPECTION METHOD:	Induction thermography
EXCITATION:	High-frequency alternating electromagnetic field
FREQUENCY RANGES:	— MHF: 6–60 kHz or 15–60 kHz — HF: 50–450 kHz
SYSTEM VARIANTS:	— ITvis 3000 MHF — ITvis 5000 MHF — ITvis 10000 HF
MHF SYSTEM POWER:	— 3 kW (ITvis 3000 MHF) — 5 kW (ITvis 5000 MHF)
COOLING:	— MHF: Air-cooled — HF: Water-cooled
INDUCTORS:	— LINEY: Line-shaped heating, approx. 5 × 100 mm, transmission mode — POINTY: Localized heating, 9 × 16 mm, transmission mode — MINI-CRACKY-LT (HF): Crack inspection of small non-magnetic components, 19 × 19 mm² field of view, reflection mode
INDUCTOR CABLE:	2 m high-frequency cable
DETECTION:	Infrared camera with MWIR or LWIR detector
SIGNAL GENERATOR:	External ESG
EVALUATION:	Phase image analysis using Fourier transformation
SOFTWARE:	— DisplayImg Professional — DisplayImg Automation
SOFTWARE INTEGRATION:	Frequency-dependent inductor power curves integrated into DisplayImg 7
INTEGRATION:	Laboratory, production and automated inline inspection

ACCESSORIES



EDECAM

High-speed LWIR infrared camera for active thermography

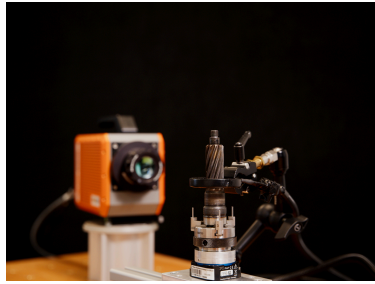


DISPLAYIMG SOFTWARE

Modular software platform for thermography and automated inspection

ITVIS 3000

Compact induction thermography system for fast crack and surface inspection



Inspect metallic components quickly and without contact.

The ITvis 3000 MHF uses induction thermography for non-destructive inspection of metallic and hybrid components. With 3 kW of power and a frequency range from 6 to 60 kHz, the system generates targeted heat within the inspection area. Cracks, laps and defects in welds, solder joints and other joints influence the current density and heat flow and become thermographically visible.

The compact, air-cooled 19" design is suitable for flexible inspection tasks in production, quality assurance and maintenance. Application-specific inductors allow the thermal excitation to be adapted to different component geometries and inspection tasks.

YOUR ADVANTAGES AT A GLANCE

Wide frequency range: 6 to 60 kHz allow adaptation to different components and inspection tasks

High inspection sensitivity: Cracks, laps and defects in welds, solder joints and other joints become visible through thermal anomalies

Non-contact heating: Inductive energy input enables inspection without direct contact with the component surface

Flexible excitation: Application-specific inductors adapt the heating pattern to different geometries and joints

Compact system design: Air-cooled 19" technology with 3 U supports flexible use in laboratory and production environments

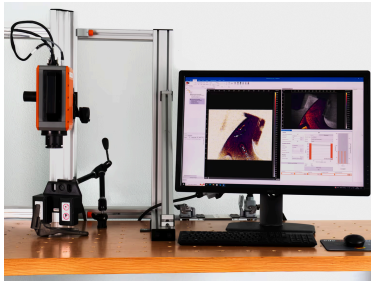
Easy integration: DisplayImg supports system control, evaluation and integration into automated inspection processes

TECHNICAL INFORMATION

INSPECTION METHOD:	Induction thermography
SYSTEM:	ITvis 3000 MHF
POWER:	3 kW
FREQUENCY RANGE:	6–60 kHz
COOLING:	Air-cooled
POWER SUPPLY:	230 V AC, 16 A
HOUSING:	19", 3 U
OVERLOAD PROTECTION:	Yes
INDUCTOR:	Application-specific
SIGNAL GENERATOR:	External ESG
DETECTION:	Infrared camera
SOFTWARE:	DisplayImg Professional, ITvis module
FIELDS OF USE:	Production, quality assurance and maintenance

ITVIS 5000

High-performance induction thermography for fast industrial inspection tasks



More power for demanding crack and surface inspection.

ITvis 5000 MHF uses induction thermography for non-contact, non-destructive inspection of metallic and hybrid components. With 5 kW of power and a frequency range from 15 to 60 kHz, the system generates targeted heat within the inspection area and is particularly suited for fast, reproducible inspections in production, quality assurance and maintenance.

Cracks, laps and defects in welds, solder joints and other joints influence the local current density and therefore the heat flow within the component. These thermal anomalies are captured by an infrared camera and evaluated using dedicated software.

By selecting the appropriate inductor, the excitation can be adapted to the component geometry and inspection task – from localized joints to linear welds or adhesive bonds.

The robust, air-cooled 19" design is intended for industrial use and can be integrated into automated inspection processes. This makes the ITvis 5000 MHF especially suitable for applications requiring high inspection speed, reproducible results and flexible adaptation to different components.

YOUR ADVANTAGES AT A GLANCE

High system power: 5 kW support fast and demanding inspection tasks in industrial applications

High inspection sensitivity: Cracks, laps and defects in welds, solder joints and other joints become visible through thermal anomalies

Non-contact heating: Inductive energy input enables inspection without direct contact with the component surface

Flexible excitation: Application-specific inductors adapt the heating pattern to different geometries and joints

Robust system design: Air-cooled 19" technology for use in production and quality assurance

Easy integration: DisplayImg supports system control, evaluation and integration into automated inspection processes

TECHNICAL INFORMATION

INSPECTION METHOD:	Induction thermography
SYSTEM:	ITvis 5000 MHF
POWER:	5 kW
FREQUENCY RANGE:	15–60 kHz
COOLING:	Air-cooled
POWER SUPPLY:	400 V AC, 16 A
HOUSING:	19", 4 U
OVERLOAD PROTECTION:	Yes
INDUCTOR:	Application-specific
SIGNAL GENERATOR:	External ESG
DETECTION:	Infrared camera
SOFTWARE:	DisplayImg Professional, ITvis module
FIELDS OF USE:	Production, quality assurance and maintenance



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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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