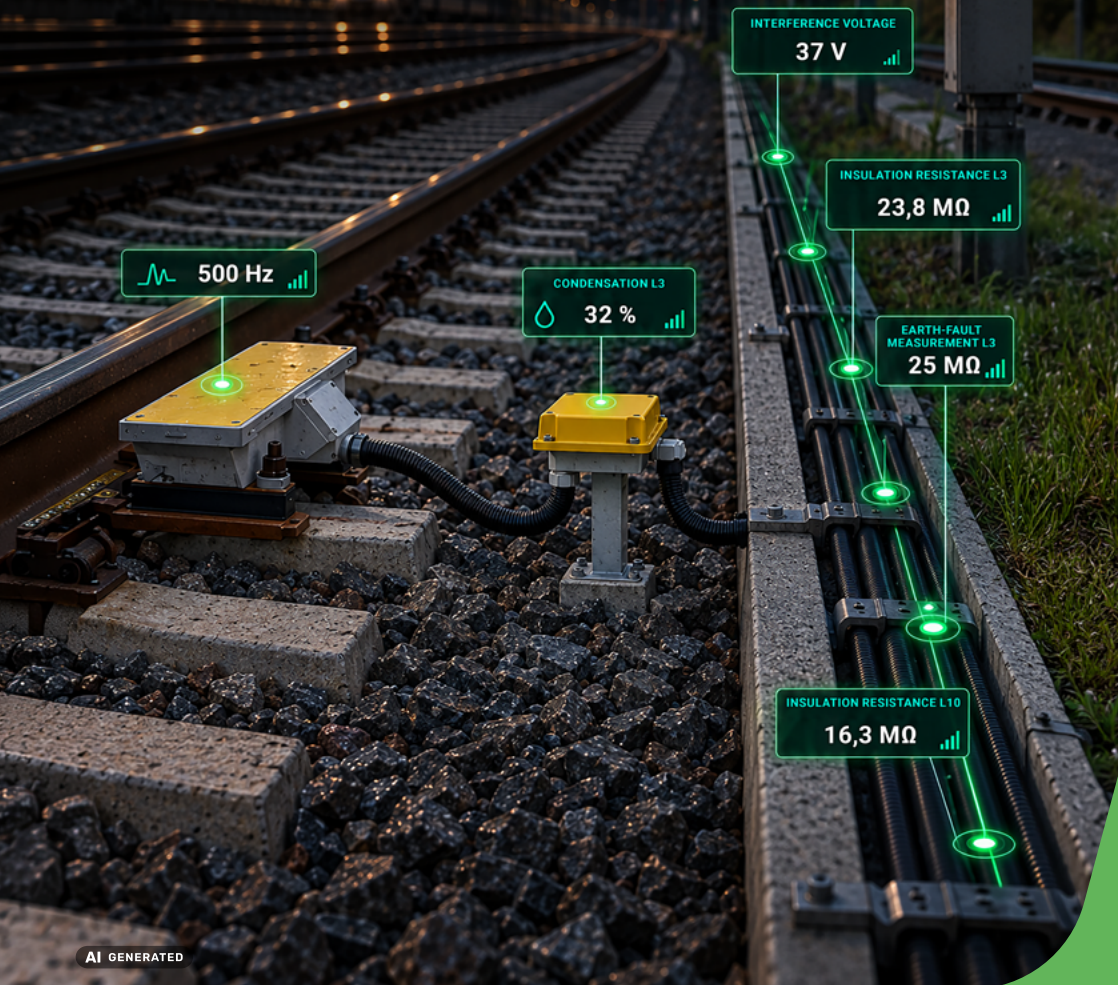


Diagnostic and Measurement Systems

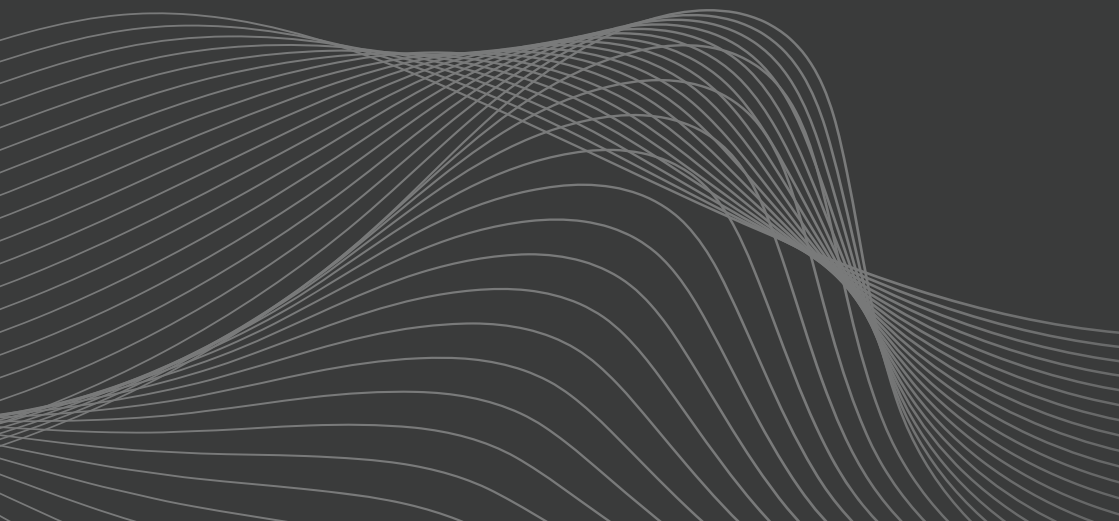
Diagnostics that give you the edge.



AI GENERATED



You can find all our current products on our website.
Simply scan the QR code



Overview

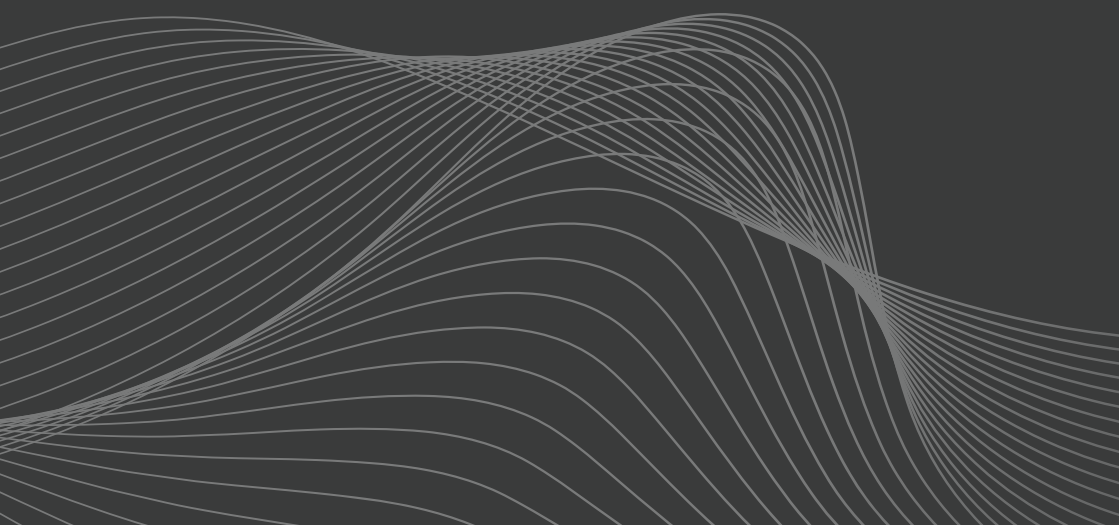
The diagnostic and measurement systems from W&S Technik GmbH are specifically designed for preventive maintenance and monitoring of railway infrastructure. We offer tailored solutions that ensure efficient and reliable monitoring of signalling and train control systems. Our systems can detect faults at an early stage, before they lead to failures, thereby improving the safety and reliability of the infrastructure.

Our monitoring systems integrate state-of-the-art hardware and software components. We develop the hardware in-house, including circuit diagrams and printed circuit board layouts, and combine this with advanced firmware and software development. This combination enables us to create innovative monitoring solutions that provide precise data processing and analysis.

We also use communication protocols such as Modbus RTU, CAN, I2C and SPI to ensure seamless data transmission between the various components. Our systems are designed to take continuous measurements and provide precise data on the condition of the infrastructure, allowing preventive action to be taken at an early stage.

We also place great emphasis on rigorous testing and measurement procedures to ensure that our systems meet the highest quality requirements. Every component is thoroughly tested to ensure flawless operation and a long service life.

MAKE IT SMART.



Contents

MagCheck GO NEW	6
MPXv3	8
FsD66 sensor	11
UEM10 sensor	11
IF interface module	11
MPXv3 Mobil NEW	12
Relay interlocking diagnostics (RSTW)	16
FSC-Sensor	18
UDS-Switch	19
“Bügeleisen”	20
Legal notice	22

Fast testing in a compact format:

MagCheck GO



USB-C

26-127-MagCheckGo

- | | |
|----------------------------------|--|
| • Dimensions (L x W x D): | 210 mm x 98 mm x 35 mm |
| • Weight: | 450 g |
| • Degree of protection: | IP67 |
| • Housing material : | UV-stabilised ABS with silicone protection |
| • Temperature range : | -20 °C to +70 °C |
| • Humidity: | 5 % to 100 % |
| • Interface: | USB-C (charging interface) |
| • 3000 mAh rechargeable battery: | For up to 3000 tests |



Practical carrying bag



Compact design

- Rapid inductive testing for intermittent train protection.
- Fast measurement in less than 5 seconds.
- Reliable detection of the three fundamental frequencies, 500 Hz, 1000 Hz and 2000 Hz, as well as the inactive state.
- Integrated battery charge indicator
- Testing of speed checking equipment (GPE) from all manufacturers using the "SCHALTEN" ("SWITCH") function.
- Unrestricted use with GPE, with or without an ICE-3 interference-resistant module.
- Clear display and intuitive operation.
- Ergonomic and efficient — for everyday use.

Simple, fast and reliable testing with MagCheck GO.

The proven cable monitoring system

MPXv3



Continuous quality assessment and monitoring of the connected cable infrastructure

Repairs that can be planned early and optimised for cost.

Certification by Deutsche Bahn (PF-2021-00072).

MPXv3 was developed to document, analyse and assess the quality of the connected cable installation. These data can be used to initiate preventive repairs to the affected cable infrastructure before it fails. The system therefore enables early, cost-optimised planning.

Using up to **95 sensors**, the system collects various data along **cable routes of up to 190 km** and evaluates them in the central unit. Results are displayed on a **17-inch touchscreen**, which also makes data entry easy and convenient. No additional peripheral devices are therefore required.

A key component of the MPXv3 system is the FsD66 moisture sensor. It continuously monitors condensation in the cable distribution system.

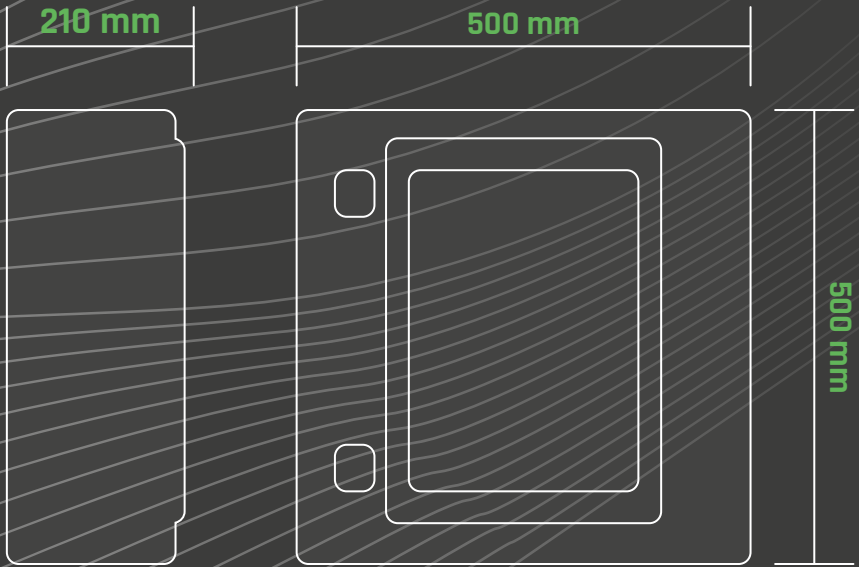
It is also possible to locate conductor breaks within individual measurement subsections. This enables targeted and efficient maintenance of the cable system.

- **Monitoring of up to 19 measurement lines for moisture ingress into cables and cable joints.**
- **Monitoring of interference voltages on up to four measurement lines.**
- **Condensation monitoring in up to 95 cable distribution systems.**
- **LTE or WAN interface for remote diagnostics and assessment.**
- **Recording of local temperature, humidity and rain status.**
- **Touch-optimised user interface.**



For further information, simply scan the adjacent QR code or visit our website:
www.wus-technik.com

MPXv3



MPX_1.2.10 - MPX

Dimensions (L × W × D): 500 mm × 500 mm × 210 mm

Operating temperature range: 0 °C to +45 °C

Interfaces : RS-485, galvanically isolated*

- Quality monitoring of the connected cable infrastructure
- Monitoring along up to 190 km of cable route using up to 95 sensors
- Intuitive input via a 17-inch touchscreen.

* For reading data from the Bender EGM, type: IRDH 265-265.

Accessories



FsD66 sensor

MPX_1.2.110

Length: 720 mm
Width: 18,3 mm
Height: 10 mm

- Passive moisture sensor
- Compact design

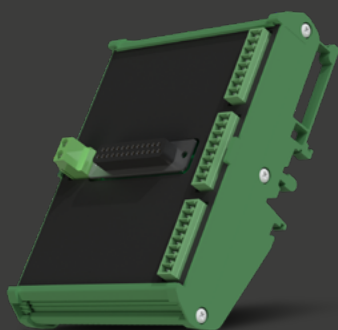


UEM10 Sensor

MPX_1.2.120

Length: 720 mm
Width: 18,3 mm
Height: 10 mm

- Measurement limiter for a monitored subsection.
- Compact design



IF interface module

MPX_1.2.60

Height: 125 mm
Width: 91 mm
Depth: 54,7 mm

Interface between the system cabling and the cable termination rack.

Flexible monitoring for temporary applications

MPXv3 Mobil



The challenge: safe repair work

The MPXv3 Mobil system is the latest development of our proven cable monitoring system and has been specifically designed for temporary use. It offers an efficient and flexible solution for monitoring cable infrastructure during repair work, for example railway bridge renewal, track renewal and HLK projects.¹

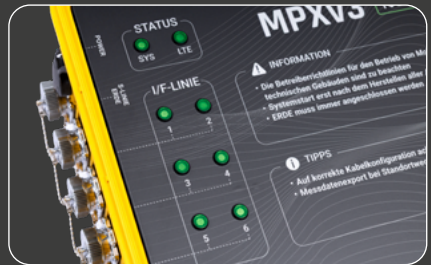
¹ HLK: high-performance corridors.

Your benefits:

- Fast response times thanks to email notifications
- Easy installation and documentation.
- Versatile use in infrastructure projects
- Theft monitoring for newly laid and existing cables
- Documentary evidence of cable damage during construction work
- Targeted narrowing-down of cable fault locations during trouble-shooting



Robust transport case



Status and measurement indicators



High-quality connectors



HDMI and USB 3.0

Possible scenarios:



Damage caused by demolition work, for example

Damage caused by incorrect storage

Applications



Platform and track renewal.



Bridge rehabilitation.



Tunnel renewal



Theft monitoring

Robust. Secure. Mobile.

- 6 lines for monitoring railway cables and distribution units within the construction area
- Suitable for outdoor use in the track area
- Thanks to its optimised design, the measurement system can be used efficiently, portably and in a theft-proof manner
- The system can be operated with external rechargeable batteries for use independently of the mains supply
- Compact dimensions: 420 × 325 × 180 mm
- Remote access allows you to keep track of all changes at any time and respond in a targeted manner

25-151_mMPX-1.2.10 MPX Mobil

- Mobile MPX system in a robust outdoor case with six lines for monitoring cables and junction points
- One S-line for monitoring induced extraneous voltages
- Includes an accessory set consisting of:
 - 1 × power supply 230 V
 - 12 × UEM10 sensors
 - 6 × FsD66 sensors

Also available as a rental or loan unit: **25-151_mMPX-1.2.50 MPX Mobil LG**

25-151_mMPX-1.2.20 – 5 m accessory set:

Outdoor case for the safe storage and transport of:

- 3 × 5 m I/F-line measurement leads on cable reels
- 1 × 5 m S-line measurement lead on a cable reel

Space for additional accessories such as sensors and a power supply

25-151_mMPX-1.2.30 – 10 m accessory set:

Outdoor case for the safe storage and transport of:

- 3 × 10 m I/F-line measurement leads on cable reels.
- 1 × 10 m S-line measurement lead on a cable reel

Space for additional accessories such as sensors and a power supply

25-151_mMPX-1.2.40 – 15 m accessory set:

Outdoor case for the safe storage and transport of:

- 3 × 15 m I/F-line measurement leads on cable reels
- 1 × 15 m S-line measurement lead on a cable reel

Space for additional accessories such as sensors and a power supply

A sustainable diagnostic solution:

Relay interlocking diagnostics (RSTW)



AI MODIFIED

The shortage of skilled personnel and ageing interlocking technology pose major challenges for railway operations. Conventional fault rectification is laborious and time-consuming.

Our solution: digital monitoring of relay interlockings

– fast, reliable and without interfering with the existing technology.

Your benefits at a glance

- **Fast, targeted fault clearance through relay-group-specific fault diagnosis**
- **Reduction of disruption-related train delays by more than 70 %**
- **Increased availability through wear detection and preventive replacement of worn components**
- **Wear-optimised replacement of relay groups to distribute the load evenly across modules**
- **Diagnostics for existing relay interlockings comparable to those of a digital interlocking**

The technology behind it

- **FSC current sensor for reading information without affecting the monitored circuit**
- **Extremely fast measurement acquisition from 1 ms**
- **Wide bidirectional measurement range of ± 2000 mA**
- **Tool-free sensor installation**
- **Digital data acquisition**
- **Measurement principle patented throughout Europe**

Conclusion

With our **diagnostic system for relay interlockings**, you actively address the **shortage of skilled personnel** and keep your **interlockings available**. This enables you to ensure **efficient, economically viable operation in the long term**.

Invest in the digital future of your interlockings today!

FSC sensor



AI MODIFIED

UDS_1.2.40

Dimensions (L × W × D):	50 mm × 26 mm × 22 mm
Weight:	25 g
Degree of protection:	IP20
Interfaces:	RS-485
Power consumption:	<1 W

- Compact design
- Low weight
- Tool-free installation
- Energy-efficient design

UDS-Switch



AI MODIFIED

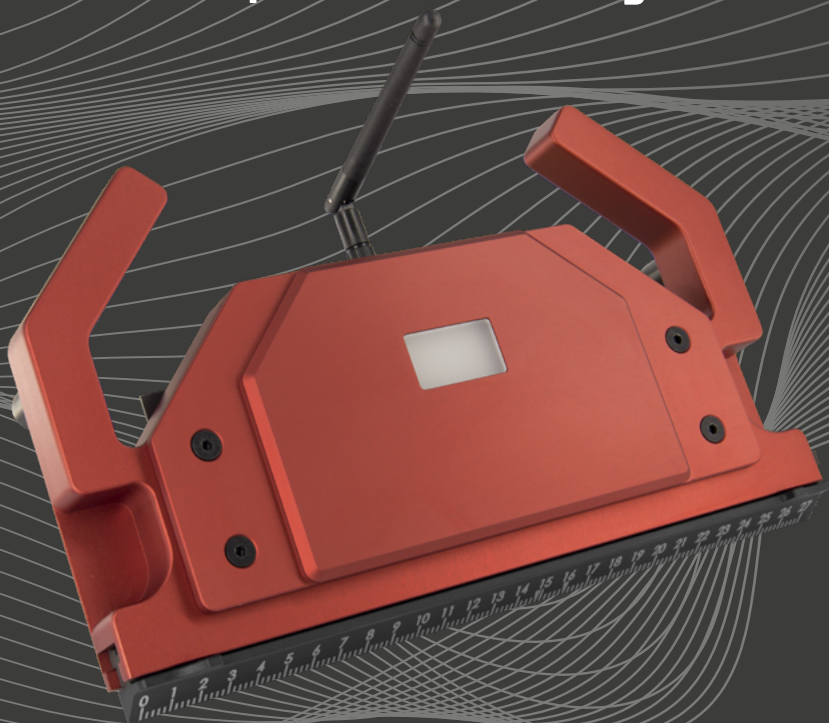
UDS_1.2.50

Dimensions (L × W × D): 166 mm × 91 mm × 26 mm

- Data concentrator and power supply for up to 16 sensors
- Rapid diagnostics using LED indicators
- Data preprocessing and conversion to Ethernet
- Modular mounting
- Power supply via PoE

Keeping everything running smoothly:

Contact displacement setting device



23-00136-KWE

- Wireless transmission
- Selectable channel
- Lighter than the wired "Bügeleisen"

Basic set (23-136-KWE-Basis-Set):

Contact displacement setting device

Contact actuation length setting device for magnetic rail contacts or double magnetic rail contacts. Measures the correct contact actuation length and provides the setting values for magnetic or double magnetic rail contacts.

Scope of delivery:

- Adjustment device type 23-136-KWE for setting the contact travel (pre-coded)
- Connector ("Black"), type 23-136-KWE-SS for measuring magnetic inserts
- Robust, orange hard-shell case

Extension set 1 (23-136-KWE-Erweiterungsset):

KWE handheld unit + MKPL

CDSD expansion set for the basic set

Scope of delivery:

- Type 23-136-KWE-MT handheld unit for additional audible and visual indication
- Type 24-122-MKPL magnetic contact test gauge
- Tool set for adjusting MK/DMK

Expansion Set 2 (23-136-KWE-SR):

Contact Travel Adjustment Device Transmitter Red

Additional transmitter for the contact travel adjustment device for calibration of electronic contacts.

Legal notice

Publisher and owner:

W&S Technik GmbH

Herner Strasse 130
44575 Castrop-Rauxel

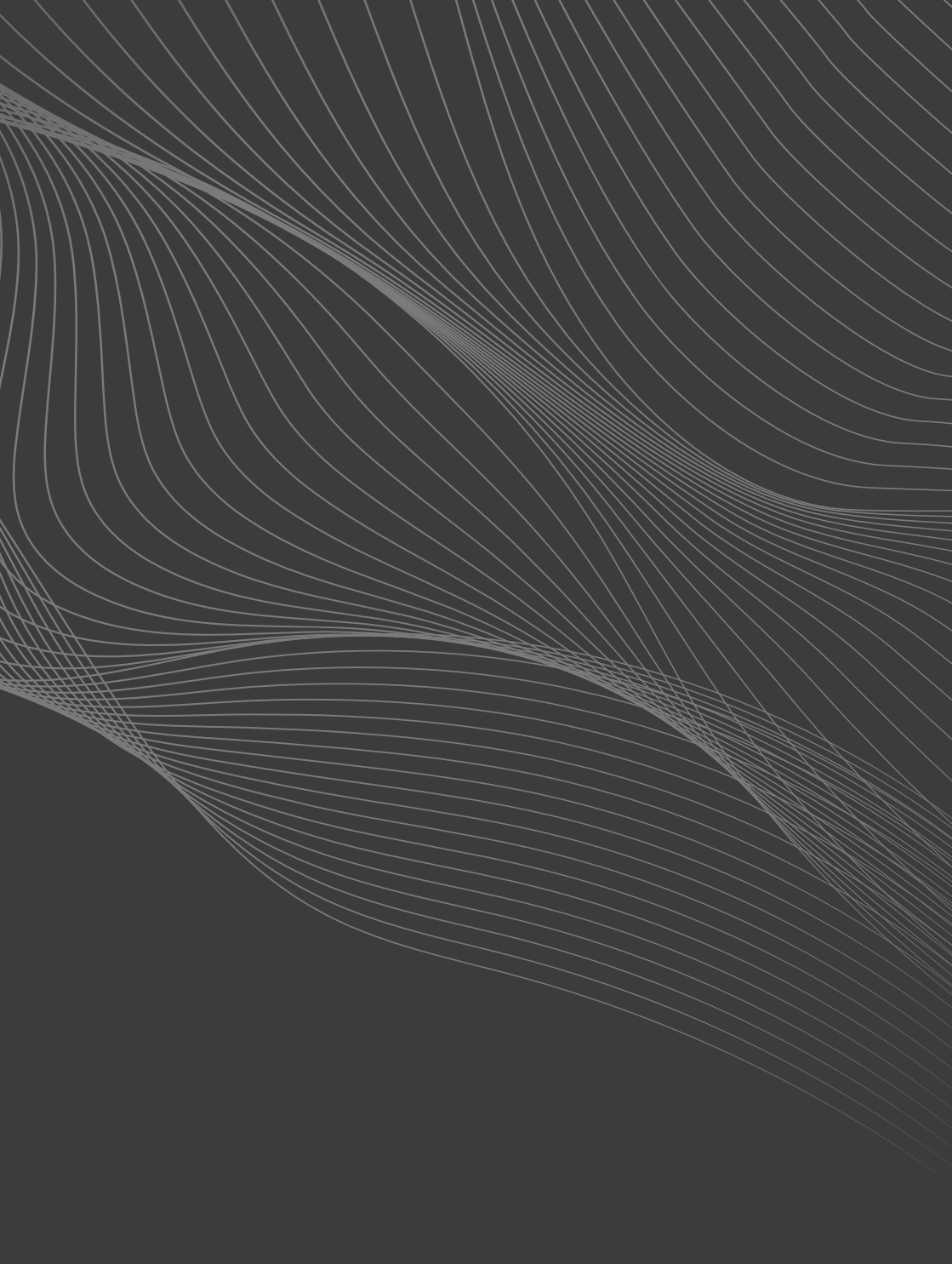
T +49 2305 419 07 01
info@wus-technik.com

Date last edited:	15.09.2026
Technical information as of:	15.09.2026
Version number:	v1.4
Product designation:	Diagnostic and Measurement Systems

© W&S Technik GmbH

W&S Technik GmbH holds the copyright and all exploitation rights in these materials. The materials may not be reproduced, distributed, communicated to the public, edited or otherwise modified without the prior written consent of W&S Technik GmbH. No liability is accepted for inadvertently omitted, incomplete or incorrect entries, errors in execution or printing, or incorrect stand numbers. For ease of reading, the masculine form is generally used. However, all references to persons apply to all genders. Subject to technical changes.

This English version is based on the original German text. In the event of any discrepancies, ambiguities, or differences in interpretation, the German original shall prevail.



Our information materials are also available in digital form!
Simply scan the QR code!



Download Hub

