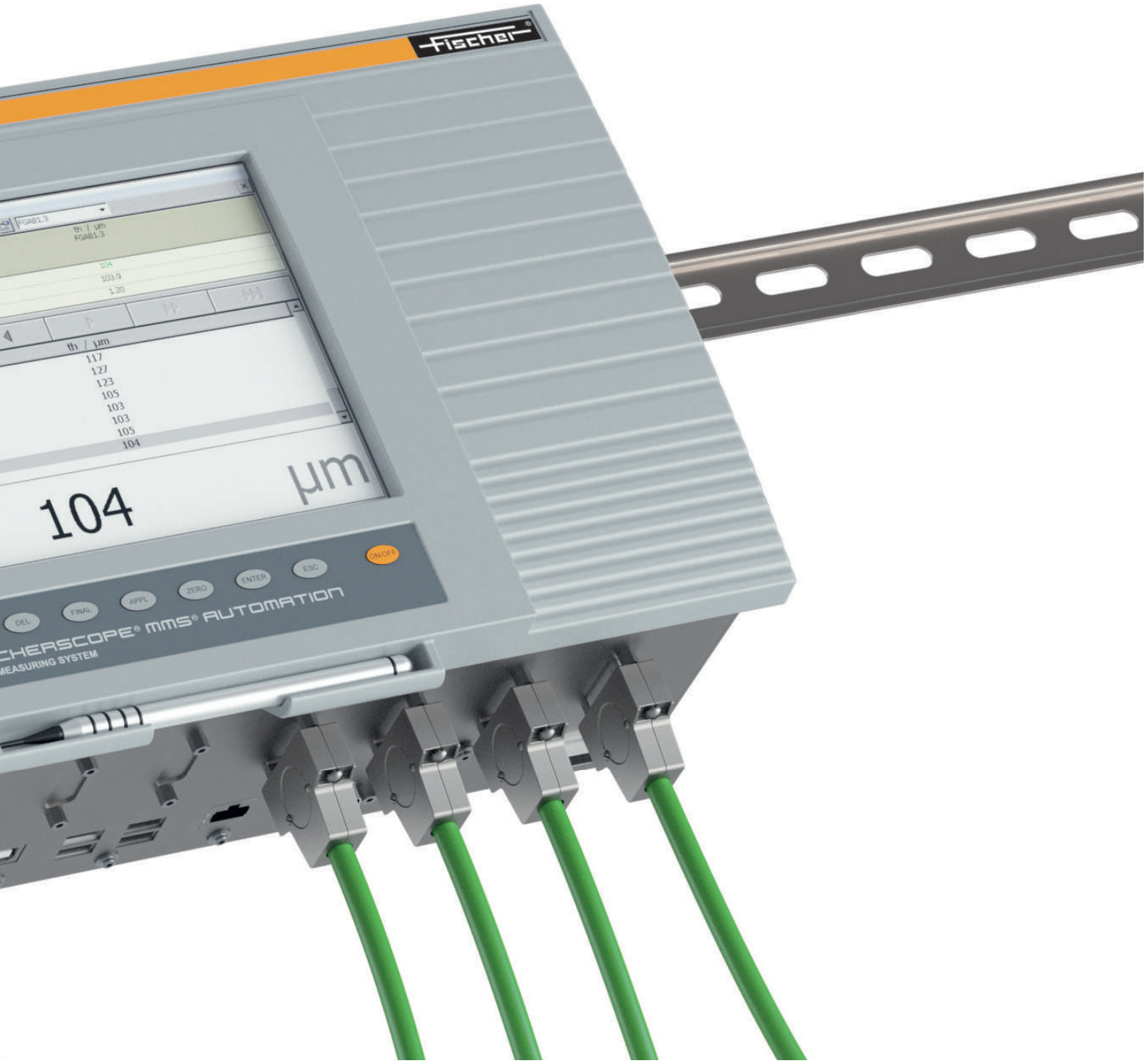


FISCHERSCOPE® MMS® Automation

Inline Measuring and Testing

fischer®

THE SOLUTION FOR INLINE QUALITY CONTROL – GO FROM PRODUCTION LINE TO SMART FACTORY

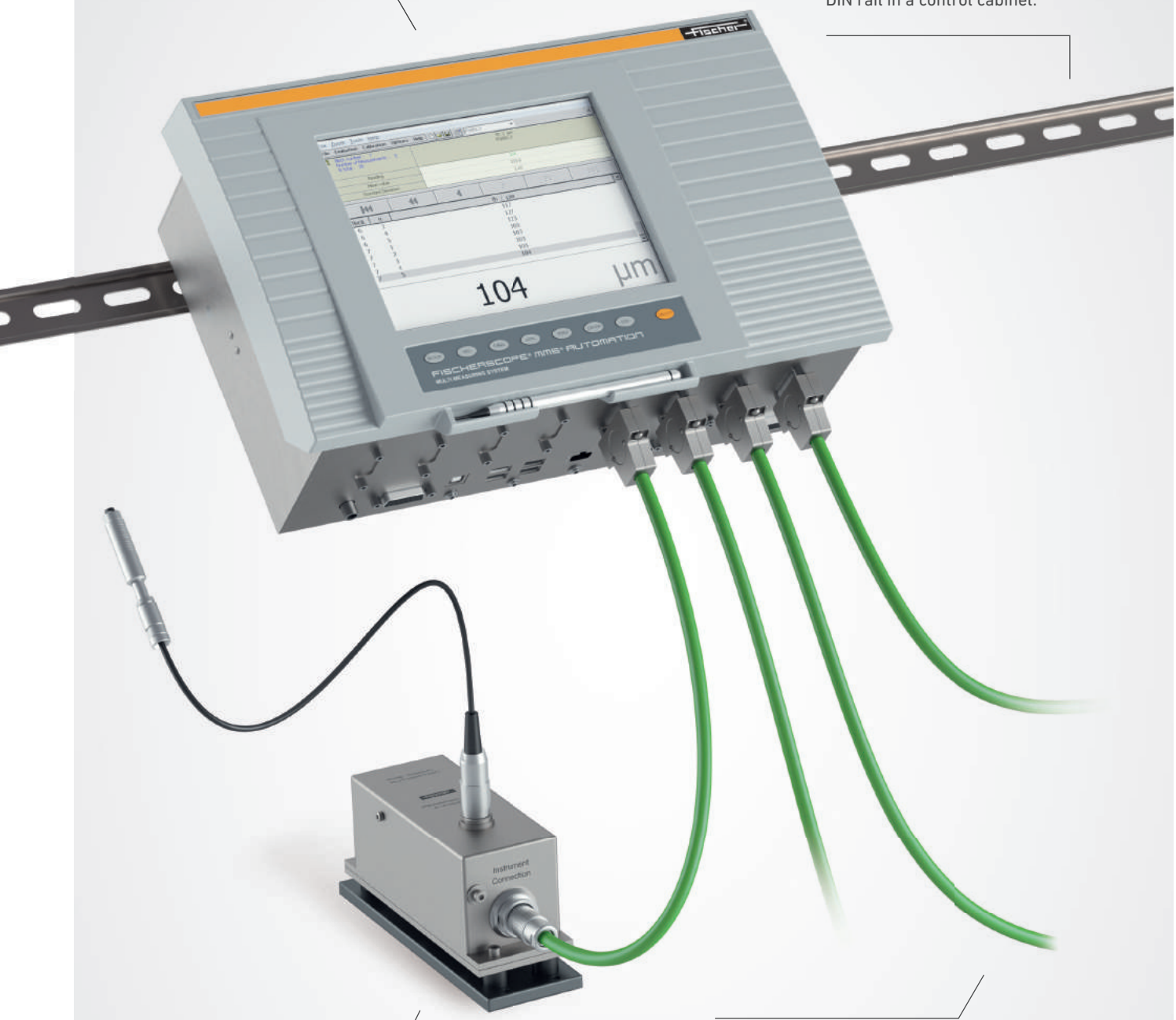
Fully automated production offers numerous advantages: faster fabrication, better quality and transparent processes. Additionally, automated quality control with its constant measuring conditions allows the detection of even small deviations in the production. That's why more and more industries are turning to automation. However, converting this vision into reality requires a powerful and fully integrated measuring system with interfaces to all control units.

The FISCHERSCOPE® MMS® Automation forms the basis for automated quality control in a wide range of applications. The measuring system is unique on the market and consists of three main parts. The actual measurement is done using probes, which can be mounted on a robot arm or in a measuring station. The probe signals are transmitted to the MMS® module. The modules are the heart of the system: they determine which measurement method is used.

From here the digitalized signals are passed on to the base unit. The base unit is mounted in the control cabinet and is responsible for monitoring the measurement. It communicates with higher-level units via a PROFINET interface.

Best Integration: The base unit communicates via a PROFINET interface with higher-level control units.

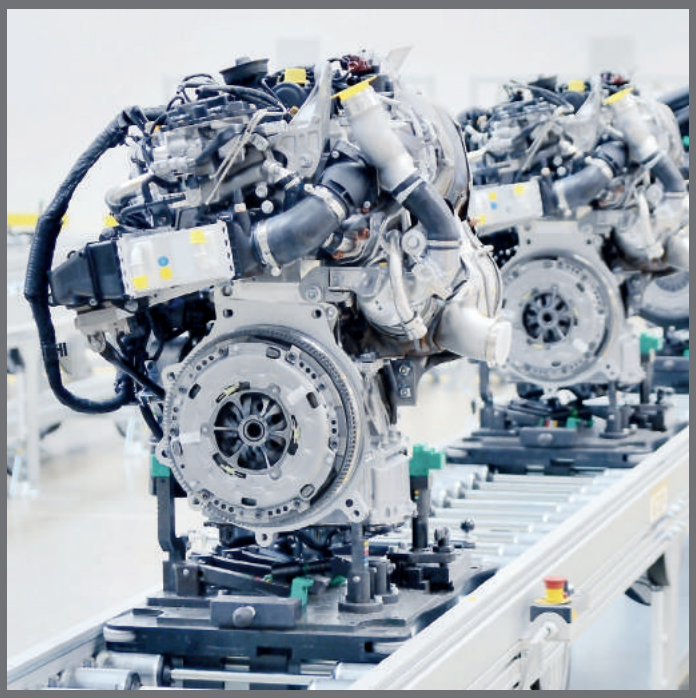
Convenient set-up: The MMS® Automation base unit can be mounted on a standard DIN rail in a control cabinet.

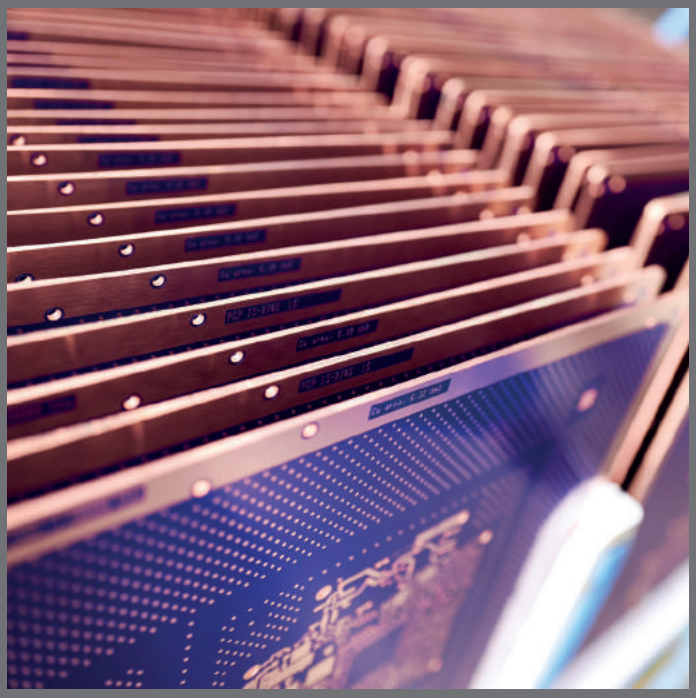


Flexible system: Use up to four different MMS® modules to measure coating thickness and electrical conductivity.

Long-distance measurement: Drag-chain-capable cables up to 30 m long allow the use of the MMS® Automation in any industrial environment.

MMS® Automation





Versatile: Designed for flexibility, the MMS® is at home in a variety of industries.

AUTOMOTIVE INDUSTRY | ELECTROPLATING | ELECTRONICS

Multi Measuring System
The Inline Allrounder

Thanks to its modular design, MMS® Automation can be tailored to your needs. For example, you can equip the system with up to four different modules and probes to solve a variety of measurement tasks. Alternatively, up to four identical probes can be used in a single application to achieve a large number of measuring points. Whether you need to measure the paint thickness on car bodies, the copper coating on printed circuit boards or to sort different aluminum parts according to their alloys – the FISCHERSCOPE® MMS® Automation has the right module.

Put your trust in automation – rely on Fischer

PERMASCOPE®

PERMASCOPE® is the versatile module for measuring coating thickness. It combines two measuring methods: the magnetic-inductive and the eddy-current method.

Typical applications:
- Electrically insulating coatings on various metals, e.g. paint on steel or aluminum
- Electrically conductive, non-magnetizable coatings on ferrous metals, e.g. zinc, copper or chrome on steel
- Weakly conductive coatings on highly conductive metals, e.g. chrome and electroless nickel on copper or aluminum

PHASCOPE® DUPLEX

The PHASCOPE® DUPLEX is specially designed for the automotive industry to measure duplex coatings (paint and zinc on steel) in one step. It uses three measuring methods: the magnetic induction method and both the amplitude-sensitive and the phase-sensitive eddy current methods.

Typical applications:
- Paint on steel and aluminum
- Paint and zinc coatings (thin EPD coatings) on steel; both layers are measured in one step
- Brake line tubing
- Wire (mesh and lattice), e.g. on shopping carts

SIGMASCOPE®

SIGMASCOPE® determines the electrical conductivity of metals and can be used either for coating thickness measurement or for identifying non-ferrous metals.

Typical applications:
- Measuring copper coatings on PCBs
- Inspecting aluminum alloys in incoming goods

SR-SCOPE®

SR-SCOPE® is a special module for the electronics industry. It uses the micro-resistance method and is suitable for measuring the thickness of individual copper coatings on multilayer printed circuit boards – without influences from deeper layers.

NICKELSCOPE®

NICKELSCOPE® is based on the Hall effect and exploits the different magnetizabilities of coating and base materials for thickness measurement.

Typical applications:
- Electroplated nickel coatings on non-ferrous metals and insulating base materials
- Non-magnetic coatings such as copper, aluminum or lead on steel or iron

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