

# MEASURING & TESTING IN THE AUTOMOTIVE INDUSTRY

For Enhanced Productivity and for the Electrical Safety of Products and Systems



## TRAINING



Ongoing qualification enjoys top priority, because complex measuring tasks, standards and regulations are subject to continuous change. Our trainers are experienced experts who are familiar with the requirements based on actual practice and always keep themselves up to date.

## PRODUCT SUPPORT



GMC-I Messtechnik GmbH offers comprehensive services and consultation. Specially trained experts provide you with support concerning all aspects of our product range.

Our product support department makes numerous support services available, regardless of whether you need to solve a problem with a product, require on-site technical support, want help with one of our software products or are seeking technical advice regarding standards or measuring applications.

## PRODUCTION EQUIPMENT

To the greatest possible extent, the operation of production equipment should be interference and interruption-free, as well as cost-effective, and should assure maximized safety for operating and assembly personnel. When a malfunction or an interruption occurs, it has to be eliminated as quickly as possible in order to maintain optimized systems utilization.

### OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Test instruments for testing the electrical safety of permanently installed and portable devices and systems, e.g. SECUTEST PRO, PROFITEST PRIME
- Energy management systems for monitoring and optimizing energy consumption, e.g. ENERGYMID, SMARTCONTROL, SMARTCOLLECT
- Heavy current monitoring and measuring transducers for systems monitoring, e.g. AM3000, DM5
- Power quality monitoring instruments, e.g. MAVOWATT, PQ3000
- Multimeters for maintenance and troubleshooting, e.g. METRAHIT ETECH



## RESEARCH AND DEVELOPMENT

Those who seek out and develop innovative solutions are confronted with challenges again and again. The functional demands placed upon measuring and test technology are accordingly diverse and extensive – and simple, intuitive operation should also be assured.

### OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Multimeters for testing parts and components, e.g. METRAHIT H+E CAR
- Power supplies for simulating energy sources, e.g. the SSP 32N series and the SYSKON P series
- Electronic loads for simulating consuming devices, e.g. the SPL series

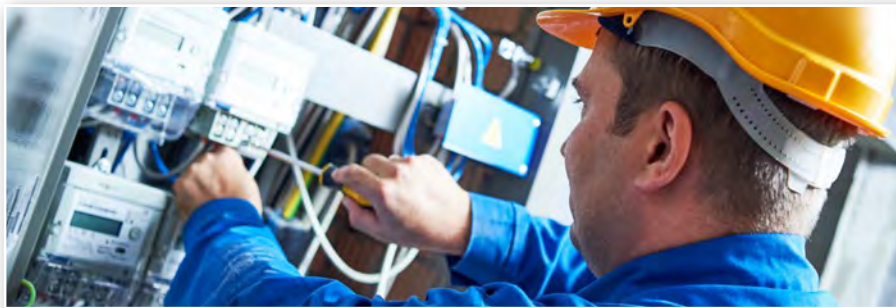


# BUILDING MANAGEMENT

As a subdomain of facility management, technical building management involves the maintenance of the functional performance of buildings and systems along with their technical equipment such as elevators, heating, air conditioning, lighting etc.

## OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Test instruments for testing the electrical safety of electrical installations in buildings, e.g. PROFITEST
- Energy management systems for monitoring and optimizing energy consumption, e.g. ENERGMID, SMARTCONTROL, SMARTCOLLECT
- Heavy current monitoring and measuring transducers for systems monitoring, e.g. AM3000, DM5
- Multimeters for testing, servicing and maintenance of electrical installations, e.g. METRAHIT PRO
- Photographic technology und photometry for optimizing lighting, e.g. MAVOLUX-5032BUSB



# TEST BENCHES / TEST BAYS

Testing and validation of innumerable electric and electronic vehicle components also include mandatory testing of how they perform in the event of a faulty automotive electrical system. This is based on diverse voltage sequences which are specified in the EMC standards or by the automobile manufacturers. Not infrequently, these components are produced and validated all year long, 24 hours a day, by automatic systems.

## OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Multimeters for testing parts and components, e.g. METRAHIT 27M
- Power supplies for endurance tests, e.g. the SSP 32N series and the SYSKON P series
- Electronic loads for simulating consuming devices, e.g. the SPL series

## AFTER-SALES

Where after-sales service is concerned, maintenance and repair options are of central significance for customer satisfaction and long-term loyalty.

### OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Multimeters for testing the electrical safety of hybrid and electric vehicles, e.g. METRAHIT H+E CAR
- Multimeters for vehicle service and diagnosis, e.g. METRAport 40S
- Power supplies for simulating energy sources, e.g. the SSP 32N series and the SYSKON P series



## PRODUCTION AND FINAL INSPECTION

Comprehensive quality assurance documentation has become a standard customer requirement in the automotive industry. The use of measuring and test technology is thus imperative in production and final inspection.

### OUR SOLUTIONS FOR YOUR REQUIREMENTS

- Multimeters for testing parts and components, e.g. METRAHIT 27M
- Power supplies for endurance and stress tests, e.g. the SSP 32N series and the SYSKON P series
- Electronic loads for endurance tests, e.g. the SPL series

## SERVICE/CALIBRATION



The GOSSEN METRAWATT calibration center is accredited per DIN EN ISO / IEC 17025 as a DAkkS calibration lab under registration no. D-K-15080-01-01. We calibrate the following measured quantities:

Electrical quantities, temperature, pressure, mass, scales, parallel gauge blocks, industrial measuring instruments, atmospheric humidity, viscosity, pH value, density, torque

## PROJECT ENGINEERING



We plan and implement your project in accordance with your requirements – right on up to initial start-up.

Complete project solutions targeted at reducing energy costs by logging, controlling and optimizing energy consumption by means of control cabinets with measuring transducers, as well as complete test benches with automatic VDE test instruments including our own and other supplementary products

## SPL SERIES



Series SPL electronic loads are high-precision direct current sinks for use in research, product development, production, service and vocational training.

Four types are available with 200, 250, 350 and 400 W input power. The instruments are distinguished by a diverse range of functions and excellent regulating accuracy, as well as outstanding ease of operation.

## SYSKON SERIES



SYSKON P series KONSTANTERs (SYSTEM KONSTANTERs) are single-channel, programmable laboratory power supplies for demanding professional use in R&D, production and test systems.

## EM2389



ENERGYMID energy meters offer maximized functionality at a low price. The extremely compact design leaves you with more room in the distributor or control cabinet for other necessary functions.

Thanks to numerous interfaces, the meters are easy to integrate into existing systems. The energy meter is approved in accordance with MID as of shipment from the factory and can be used for logging and billing active energy.

## SINEAX AM3000



The SINEAX AM3000 is a complete unit for measurement and monitoring in power systems.

It's distinguished by the quality of its display and intuitive operation. The instrument makes broad-ranging functionality available to the user, which can be further expanded with optional components. It can be used directly for all systems without any hardware changes – from single-phase right on up to 4-wire systems with unbalanced load.

## PROFITEST PRIME



Test instrument for testing the effectiveness of protective measures in electrical installations per DIN VDE 0100-600, machines and systems per VDE 0113-1, low-voltage switchgear and controlgear assemblies per VDE 0660-600-1, PV systems per VDE 0126-23 and electric charging stations per VDE 0122-1.

## METRAHIT ETECH



With a digital multimeter from the METRAHIT E series, you get an ultramodern, top quality measuring instrument with unique precision:



with a resolution of 60,000 digits and basic accuracy of 0.05%, these instruments assure extremely reliable results. Thanks to their broad-ranging scope of functions, they cover an extensive spectrum of demanding measuring tasks and their ergonomic design makes it a pleasure to work with them every day.

Further information regarding these and other products is available at:

web: [www.gossenmetrawatt.com](http://www.gossenmetrawatt.com) // e-mail: [export@gossenmetrawatt.com](mailto:export@gossenmetrawatt.com) // phone: +49 (0)911 8602-999



**GMC INSTRUMENTS**

 **GOSSEN METRAWATT**  
 **CAMILLE BAUER**

GMC-I Messtechnik GmbH  
Südwestpark 15 • 90449 Nürnberg • Germany  
Phone: +49 911 8602-999 • Fax: +49 911 8602-125  
[www.gossenmetrawatt.com](http://www.gossenmetrawatt.com) • [export@gossenmetrawatt.com](mailto:export@gossenmetrawatt.com)