



MRS Electronic GmbH & Co. KG

Your strong partner for smart electronics





We accompany you every step of the way – from the conception and development of a product to series production to after-sale service.

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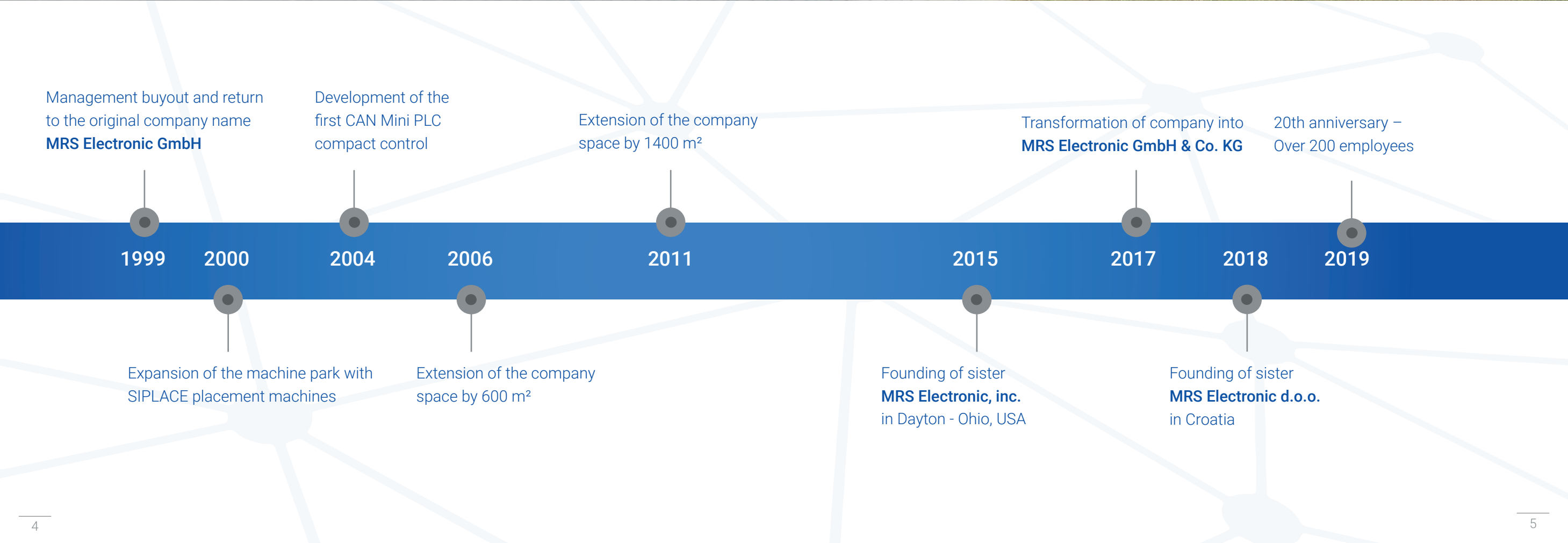
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About MRS Electronic

Since the founding of the company in 1999, MRS Electronic has evolved from a simple manufacturer of relays and controllers to a competent partner and expert in automotive and commercial vehicle electronics.

„Teamwork, trust and a passion for electronics form the basis of our mutual success.“
Günther Dörgeloh - CEO MRS Electronic



Environmental & Quality Management

Modern production technologies, open communication and continuous optimization of all business processes reflect our active concept of quality management.



Our quality standards are geared to the expectations and wishes of our customers. We don't want to just meet the requirements, we want to exceed them.

Quality runs like a red thread through the whole company and every single employee takes responsibility for the quality of his or her daily work.

Since 2003, MRS Electronic has been regularly certified according to the internationally recognized quality standard DIN EN ISO 9001.

As a result of comprehensive and efficient quality activities, an environmental certification according to DIN EN ISO 14001 was achieved in 2012.

In 2017, the company was certified according to the automotive standard IATF 16949:2016.

The numerous E1 approvals issued by the German Federal Motor Transport Authority are another indicator of the quality standard of the Automotive Electronic Modules. Upon request, we can also carry out various environmental tests (climate, temperature, vibration, EMC).





You will be able to achieve your goals faster and more economically - because as a one-stop shop, we can provide you with everything from one source.

MRS Product Portfolio

As a growing medium-sized partner for the automotive and vehicle industry, we develop and produce intelligent electronic products and customer-specific solutions.

Our broad product portfolio consists of compact control systems, motor control systems, gateways, electromechanical relays and HMI systems.



Controllers

Controllers are digital electronic systems whose programmable memory enables user-oriented control instructions.



Gateways

Gateways transmit information and data between control units and enable error-free and secure communication.



Relays

Relays are electromechanical switches and very suitable for controlling time-delayed circuits of any kind.



HMI-Systems

An HMI-System serves as an interface between the operator and the process. Using an HMI-System, production processes can be coordinated and controlled.

Controllers

Controllers are digital electronic systems that in the simplest case work with four components (inputs, outputs, operating systems and interfaces).

Connected Controllers

The networked controllers of MRS Electronic are used to extend existing CAN controllers but can also be used as stand-alone PLC controllers. Optionally, they can also be equipped with an RS485 or RS232 interface. Graphic programming is carried out with the CANgraph software tool, and the appropriate flash programming tool or programming with a C development system.



Available in the variants:

- CAN I/O PLC
- CAN Relays Box
- CAN I/O PLC Waterproof
- Micro PLC CAN
- PROP CAN
- 6-fold PROP CAN
- Micro PLC CAN 4 I/O
- Micro PLC CAN 4 ANA
- CAN I/O PLC Waterproof PRO V2
- CAN I/O PLC LHS
- M2600 ECO CAN PLC
- M3600 CAN PLC



OUT NOW!
CC16WP

Motor Controllers

The motor controllers are microcontroller controlled modules for e.g. automotive applications. Free configurability and programmability allow the realization of various applications. They are very compact and can therefore be used in many ways.



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Available in the variants:

- Motor Controller 5 A CAN
- Motor Controller 10 A CAN
- 4-fold Motor Controller
- Motor Controller 10 A CAN PRO

PLC-Controller

Controllers (PLC) are digitally operating electronic systems, which in the simplest case work with four components (inputs, outputs, operating systems and interfaces).

These four components can be used to control machines or systems, as the name implies. Programmable memory allows user-oriented control statements to be stored and executed via the inputs and outputs.



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Available in the variants:

- Controller M1
- Controller M3
- Micro PLC
- Proportional Amplifier



Further information
www.mrs-electronic.de/en/products/controllers



Relays

Relays are electromechanical switches and are used to turn circuits on, off and on. They offer the ability to control a circuit with high voltages and currents with a small circuit.

Solid State Relays

Electronic solid state relays are the counterpart to classic mechanical relays. They are electronic circuits made of semiconductor devices and other electronic elements.

Pulse Relays

Pulse relays are used when loads need to be turned on or off for a timed range.

Time Relays

Time relays are electronic relays which can switch on or off connected loads after the predefined time has elapsed.

Toggle Relays

With the toggle relay, a load can be switched with a button. If a positive / negative pulse is applied to terminal 15, the relay switches and goes into self-holding. With another impulse, it is brought back to rest.

Special Relays

Special relays are all relays that are not part of our standard program. By way of example we show some special relays which are equipped with different additional circuits, such as decoupling diode and / or freewheeling diode, can be ordered.



Voltage Monitors

Voltage monitors are relays that switch the connected loads when exceeding or falling below a predefined threshold voltage.

Frequency Monitors

Frequency monitors are relays that switch the connected loads on or off when a predefined frequency threshold is exceeded or undershot.

Flashers

Flashers are relays that can be used for directional and hazard warning functions in different vehicle types.

Standard Relays

The category of standard relays includes micro-relays, high-current relays, relays with special contacts, voltage transformers and standard relays. The relays are available in different sizes and in the 12 V and 24 V versions.



Further information
www.mrs-electronic.de/en/products/relays

Gateways

Gateways are the central point of contact for all control units. You can transmit and evaluate all information and data, so all ECUs can communicate and work with each other. They are used primarily in the automotive sector, where they control and coordinate all control units in the vehicle.

CAN/RS485 Gateway

The compact car-compatible CAN I/O PLC / RS485 Gateway module is used to extend existing can controllers, but can also be used as a standalone PLC controller.



CAN Gateway Module

The compact car-compatible can gateway module with PLC function is used for the simple expansion of existing vehicle functions with low wiring requirements. It is freely programmable and equipped with 3 CAN interfaces.



Universal Gateway 5 x CAN

The Universal Gateway 5x CAN by MRS allows data exchange between CAN-Bus systems. The open and flexible design, tailored to automotive applications, allows a quick adaptation to customer-specific requirements even for small quantities.



Micro PLC CAN LIN

The most compact Gateway of MRS Electronic is the Micro PLC CAN LIN. This gateway has been developed and built on the basis of a micro PLC CAN. It offers a wide range of functions, wrapped in a 30x30x40 mm compact plastic housing. It has 9 pins with a CAN and LIN interface. The product can be delivered as LIN Slave or as LIN Master circuitry and is perfect for tight installation spaces.



Micro Gateway

The Micro Gateway is a compact gateway for automotive applications. Due to its small size and easy installation, it offers a wide range of applications. The gateway in the 30x30x50 mm plastic housing offers four different assembly variants.



Further information
www.mrs-electronic.de/en/products/gateways

HMI-Systems

An HMI-system serves as an interface between the operator and the process. Using an HMI-system, production processes can be coordinated and controlled. It reproduces production information in a simple representation so that the operator can react based on this information.

Touch Panel

The touch panel is a user-friendly keyboard specifically designed for use in the commercial vehicle sector. Due to the polycarbonate front window, the module is resistant to liquids, oils, as well as dirt repellent and impact resistant.

The LED backlight allows a free choice of color of the light symbols.



Further information
www.mrs-electronic.de/en/products/hmi-systems

Power Semiconductor Testers

MRS Electronic offers a variety of different test systems. Our services include the individual development and commissioning of the finished plants on site, worldwide.

Variety of different test systems

In the tester segment, MRS offers, among others, the following test methods:

- Parametric test systems for single power diodes
- Parametric test systems for halfbridges / rectifiers (Power-diodes)
- Parametric test systems for FET-modules
- Parametric test systems for IGBT-modules (insulated-gate bipolar transistor)
- ZTH-Tester
- LAB-Test systems
- HTRB-Test systems
- HTOL-Tester
- Thermo Cycling-Tester
- Dynamic test systems for IGBT-modules
- Dynamic test systems for FET-modules
- High current cycling test systems

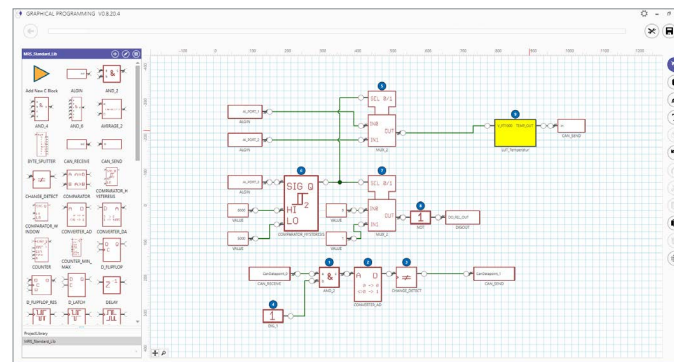


Programming tools

With our practical programming tools, you can quickly and easily define the parameters and program the products purchased from us according to your wishes and needs.

MRS Applics Studio

The new MRS Applics Studio enables you to program the new generation of our products.



MRS Developers Studio

The MRS Developers Studio was developed for the programming of our CAN products. Programming is carried out graphically, or in the case of complex applications, in „C code“ via the easy-to-use user interface.

All CAN products have a CAN bootloader that is permanently active on the modules. A new program can be flashed at any time during operation via the bootloader.

MRS Realizer

The MRS Realizer can be used to quickly and easily program the M1, M3, Micro PLC controllers and the proportional amplifier. The parameters are set via the relay contacts, which means that the housing does not have to be opened.

Z-Graph allows you to create your own programs for your application. Graphical function blocks (similar to IEC61131) in Eagle are available for this purpose.

For that reason, no extensive programming knowledge is required. A basic knowledge of digital technology is all that is needed to create programs with the MRS Realizer.

Contact us to get your individual offer for a training in our programming tools, at support@mrs-electronic.de.



Services

You can rely on our expertise and on many years of development experience. We support you regarding hardware and software and will assist you in complex solutions. Your expectations are our challenge.

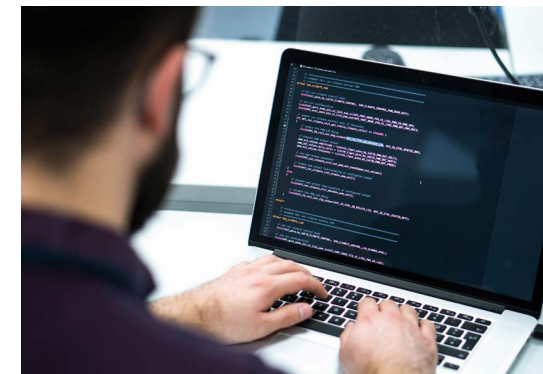


Power Semiconductor Testers

We offer a variety of different test systems. Our services include individual development as well as commissioning of finished plants at your site worldwide. In the test system segment, MRS offers test methods such as parametric test systems for IGBT modules or parametric test systems for half bridges / rectifiers (power diodes).

Individual Development

Our project management mainly focuses on supporting your individual development and the development of your catalog products. During these projects, our trained employees function as internal coordinators between the various MRS internal departments and contact persons for you.



Software Development

Software development makes an elementary contribution to the development of almost all MRS products. We develop basic software, for example application software and auxiliary tools for our own products, as well as special solutions for your products. Our strengths lie particularly in application development with CAN and LIN bus interfaces.

Software Training Courses

We also offer individual training on our self-developed programming tools. In individual training courses at our Rottweil location or at a location of your choice, our experts can train you and your employees on how to use our software. The maximum number of participants per group is five who will receive information on how to use the program, so that the realization of your application software will not be a problem in the future.



AUTOMOTIVE

MRS has been certified with the IATF-16949 standard since 2017 and is therefore a qualified manufacturer of OEM products. By auditing our development and work processes, you can directly use parts of our product range without an incoming inspection procedure, thus saving time and money.

Special equipment



Our products are used in the special equipment of vehicles for controlling electric drives. Possible functions include trailer control or comfort functions.

Retrofitting



With our gateways and relays all retrofits can be realized. For example, various lights and sirens for emergency vehicles or conversions for disabled vehicles.

Standard equipment



Our gateways serve as the central interface for networking all control systems. They enable error-free and safe communication between different bus systems.

Modification



Our compact controllers can control actuators for conversions and additional buildings during modification. This improves performance and individualizes the vehicle.

Suitable products in the automotive sector



Micro Gateway

Due to its small size and easy installation, it offers a wide range of applications.



CAN I/O PLC

The all-round talent – the compact CAN I/O PLC with 14 inputs and outputs.



Micro PLC

Free configuration, parameter setting and programming options offer a wide range of possible applications.



Further information
www.mrs-electronic.de/en/products

AGRICULTURE

Our solutions, specially developed for the agricultural sector, are perfect for monitoring and supporting the functionalities of your application in the field. The compact and reliable MRS modules offer you precise and robust control mechanisms.

Agriculture Vehicles



Our products can be used in a wide variety of applications in agricultural vehicles, ranging from controlling of lighting systems to the control of various attachment tools, such as a front loader.

Soil and Seed



Our modules control the hydraulics of the folding movements of agricultural machine equipment. They are also used for sowing with integrated seed monitoring to prevent waste and increase efficiency.

Harvesting



Our powerful controllers ensure efficient applications in cutting, harvesting and mowing processes. Areas of application include mowers, round bale or large pack balers and sprayer boom control for field sprayers.

Suitable products in the agriculture sector



M3600 CAN PLC

The powerful controller with a robust casing and 39 inputs and outputs.



CAN I/O PLC

The all-round talent – the compact CAN I/O PLC with 14 inputs and outputs.



M2600 ECO CAN PLC

The compact M2600 ECO CAN PLC is a powerful controller with a wide range of functions.

Forestry Technology



Our products are used to develop control systems and monitoring systems for forestry. Our modern control technology makes it possible to control the tensile force on the drum respective to the number of layers of rope, for example.

Animal Husbandry



From pneumatics in the form of a massage blanket for racehorses to the control systems of feed mixers: In animal husbandry, there are a number of technologies which are suitable for our product use.

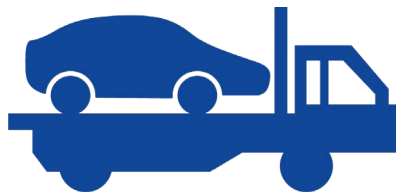


Further information
www.mrs-electronic.de/en/products

COMMERCIAL

The applications of commercial vehicles include public authorities in addition to commercial and agricultural applications. MRS offers you the right product variety to realize various functions, such as sensor-actuator communication by data evaluation and transmission.

Add-ons



Our CAN controllers are used to communicate with the base vehicle when it comes to annexes and superstructures. Data transmitted by the vehicle via J1939, such as speed or temperatures, can thus be made available to the builder.

Passenger Transport



For all types of buses, such as Omni buses, small buses and articulated buses, passenger safety is paramount. Our control systems contribute a great deal to this by controlling the door lock or the mirrors.

Freight Transport



Freight transport focuses on the transport of goods. Due to the fully automatic control of panels on swing doors, our MRS modules can significantly improve the aerodynamic properties and fuel consumption.

Suitable products in the commercial sector



CAN I/O PLC WP

Compact control system with 14 inputs and outputs and IP protection class 68.



Micro PLC CAN 4 I/O

The small controller has four inputs/outputs which can be programmed as input or output.



Micro Gateway CAN CAN LIN

Due to its small size and simple installation, it offers a wide range of applications.



Further information
www.mrs-electronic.de/en/products

CONSTRUCTION

Whether valve, windscreen wiper, hydraulic, axle or lighting control in construction vehicles and equipment – MRS offers you a broad portfolio of compact control systems, heavy-duty relays and gateways that are particularly suitable for use in case of extreme vibrations and difficult environmental conditions.



Construction Vehicles



Pavers, excavators or construction site dumpers – MRS products can be integrated everywhere. Our standard products can be used for soil compacting control, position indication of attachments and seat heating.

Cranes



Our modules are used in stationary and mobile overhead travelling and slewing cranes, for example for inclined lifts, lighting and sensor reading.

Suitable products in the construction sector

Construction Equipment



Our flexible products cover many application ranges in drilling machines, rammers, etc., ranging from measuring the cooling water temperature to controlling fault lights and preventing starting processes when limit values are exceeded.

Plant and Equipment



Our robust controllers are particularly suitable for the harsh applications with mixing plants, as they are protected from strong vibrations by the encapsulated electronics. They process measured values from temperature sensors, hall sensors or ultrasonic sensors.



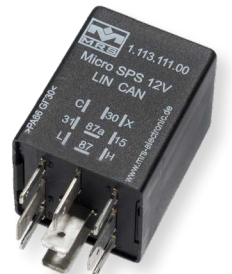
CAN I/O WP PRO V2

It offers six analog and two digital inputs in addition to eight I/Os.



CAN I/O PLC

The all-round talent – the compact CAN I/O PLC with 14 inputs and outputs.



Micro Gateway CAN LIN

Due to its small size and easy installation, it offers a wide range of applications.



Further information
www.mrs-electronic.de/en/products

SPECIALTY

Special vehicles are used in many sectors due to the individual adaptation of your functionalities. The flexible use of our controllers and gateways enables you to use a wide variety of control and monitoring functions for complex conversions and additional equipment of all kinds.

Municipal Vehicles



Municipal vehicles offer a wide range of possible applications. Our relays are used for voltage monitoring while our control systems regulate the hydraulic lift relief for the front coultter and the unfolding process of the side coultter.

Forestry Vehicle



Special vehicles are used in forestry. Our robust control modules are used to control crane trucks or mountain harvesters.

Emergency Vehicles



In these vehicles, there is a particular focus on the use of precise and reliable modules. The use of our products includes, among other things, controlling the motor air circulation of snow groomers and level indicators.

Private Vehicles



Special vehicles in the private sector also benefit from our modules. For example, thanks to CAN I/O, various hydraulic functions of tow-trucks can be easily controlled.

Media Vehicles



Media vehicles are equipped with a number of measuring devices and reception technologies. Our controllers help to regulate the motors of mast and antenna alignment for smooth retraction and extension.

Suitable products in the specialty sector



M2600 ECO CAN PLC

The compact M2600 ECO CAN PLC is a powerful controller with a wide range of functions.



CAN I/O PLC

The all-round talent – the compact CAN I/O PLC with 14 inputs and outputs.



Motor Controller 10 A

The compact design saves valuable space in your application.

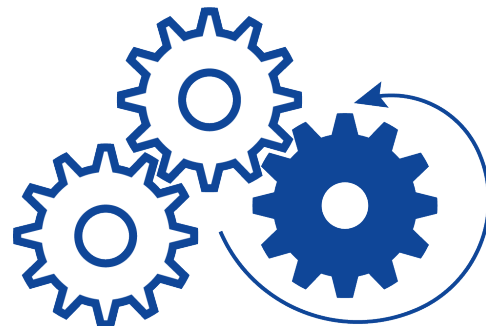


Further information
www.mrs-electronic.de/en/products

AUTOMATION

Thanks to the support of MRS modules, you can automate workflows and processes, making them more efficient. Our extensive product range offers you numerous possibilities for controlling and regulating different components within vehicles, machines or entire manufacturing processes.

Industrial Automation



Our products cover a range of complex control and regulation processes in automation. Starting with control systems for conveyor belts to the activation of signal lamps, where our modules control the lamps via CAN messages.

Suitable products in the automation sector



CAN Relays Box

The freely programmable CAN Relay box with CAN bus and 12 potential-free relay outputs.



Motor Controller 10 A CAN

The compact design saves valuable space in your application.



Micro PLC CAN 4 I/O

The small controller has four inputs/outputs which can be programmed as input or output.



Further information
www.mrs-electronic.de/en/products

MRS worldwide

Our worldwide partners, available to you anywhere!

With our headquarters in Rottweil, our sister companies in the United States and in Croatia, a sales representative in France and seven sales partners, we can support you worldwide!

OUR LOCATIONS

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SISTER COMPANY

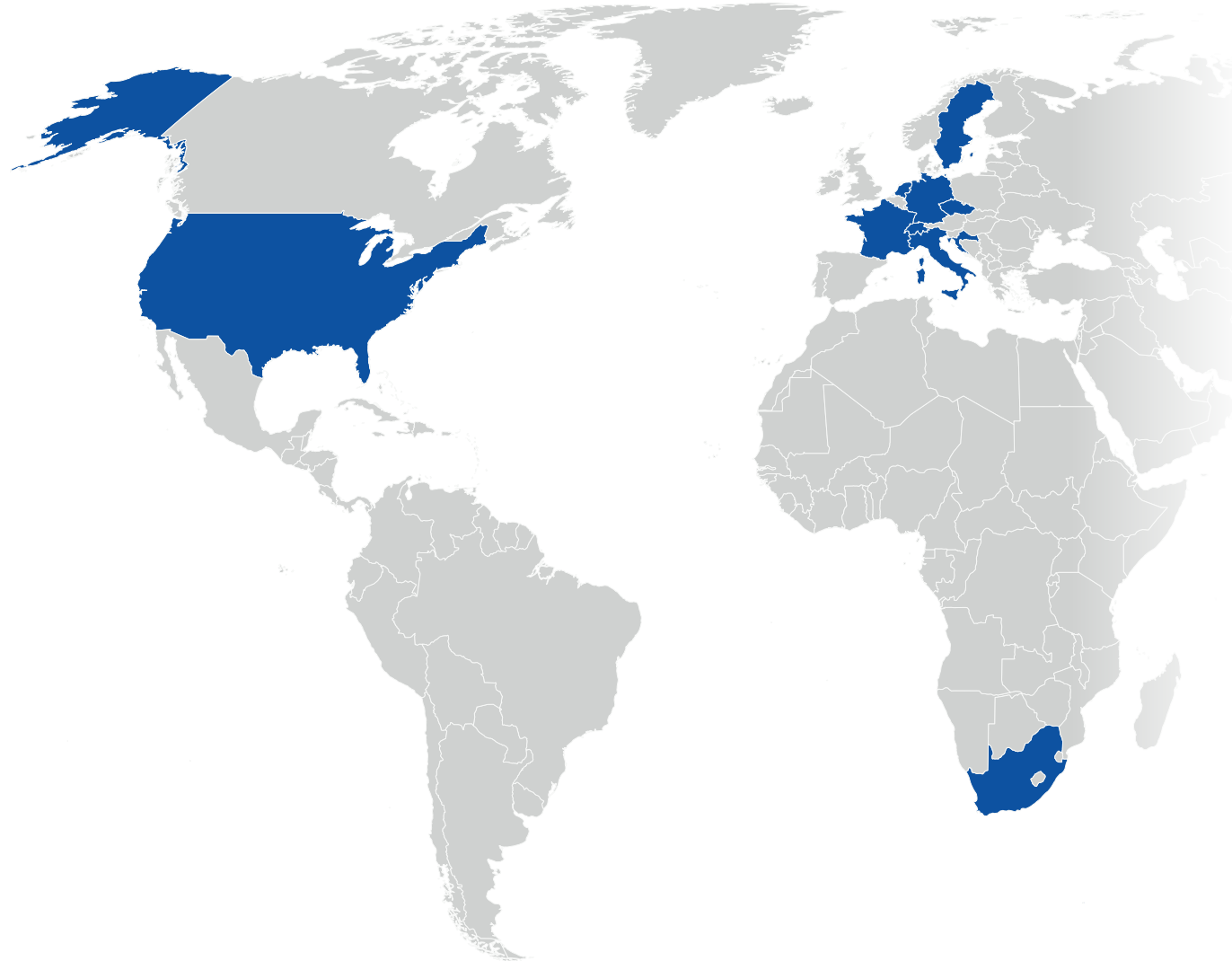
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