BBR
VERKEHRSTECHNIK

Solutions for the Future

Our portfolio of services for railway transportation

Dear readers and customers,

traditionally, our location in Braunschweig has been strongly influenced by transportation technologies: Here, the first German state railways were established, the first signalling regulations in Germany were issued and the first signal box in German was built. The entrepreneurial spirit and the endeavours of many developers in the field of traffic engineering are an incentive to continue this tradition towards the future. Here in the midst of the most important economic region of Lower Saxony, trendsetting technologies for modern control and safety systems continue to be developed.

Since its foundation in 1990, the name of BBR stands for an owner-operated company hallmarked by quality, continuity and growth. Today, we are a powerful medium-sized company with over 180 skilled employees providing a wide range of products in the fields of control and safety systems as well as dynamic passenger information technologies. Numerous customers from home and abroad – including public transport companies, private companies as well as state railways are relying on our competence and reliability.

Our in-house development, planning and production provide us with the capability to respond flexibly, quickly and effectively to customer needs. To achieve this, we combine technical knowhow, crafting skills and business activities in a pleasant working environment.

In recent years, we have expanded our modern building complex for continuing growing on our tasks here in Braunschweig. We would like to invite you to take a look at the following pages in order to obtain an insight into our company and portfolio.

Dipl.-Ing. Arne Baudis *Dipl.-Ing. Thomas Bergmann* *Dipl.-Ing. Frank-Michael Rösch*

Our philosophy

Partnership and reliability

We think and act as a team. In our project teams, we combine a variety of professions, skills and abilities – in order to achieve valuable synergy effects. Our motivated specialists, engineers and technicians – are working here together on innovative and reliable solutions.

Lean hierarchies, a high degree of self-motivation amongst our employees as well as an open and vibrant corporate culture are the key to our success.

From the first consultation we are standing by your side as a competent partner. Extensive support from our employees, even beyond project completion, is an essential part of our service. This means a high degree of investment security for you.

We support you with a professional maintenance concept, a sustainable management of spare parts and training classes customised for your specific needs.

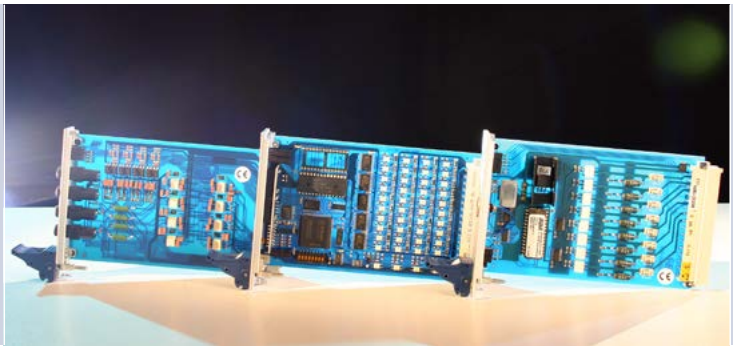
STRONG CONCEPTS

MODULAR PRODUCTS AND SYSTEMS

Our product spectrum ranges from individual components and modules to complete turnkey installations in the fields of

- Electronic interlocking systems
- Interlocking systems for shunting yards and electrical locally operated points (EOW),
- Points controllers, signalling installations and depots
- Inductive data transmission
- Automatic train control
- Dynamic passenger information

The fully modular design of our systems allows the implementation of custom-made installations according to customer needs and operational requirements, which are easily implemented. Their parts fit together like a construction kit, they harmonise with products of other manufacturers and they can be easily enhanced to contain more standard components.
Electronic signalling installations for BOStrab and EBO facilities are used both on the track and in shunting yards and for stabling facilities. Depending on the version, they meet the high standards of German Requirement Class 6 and CENELEC Safety Integrity Level SIL 4, respectively.
Our products will provide customer satisfaction through their high availability, easy maintenance and long lifespan.



Electronic modules

SIL.VIA interlocking unit in Stollberg (Saxony)

A FLEXIBLE ALTERNATIVE

Electronic interlocking systems

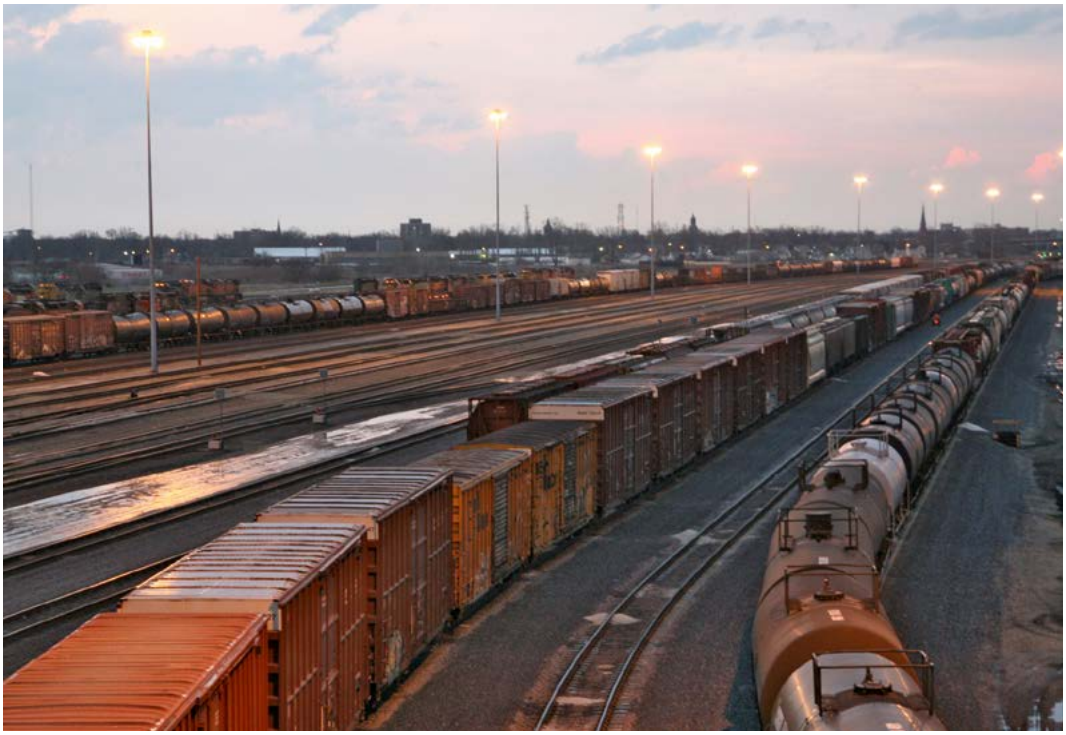
For signalling applications, specially for the needs of regional, industrial and urban railways, we have developed our SIL.VIA electronic interlocking system mainly for protecting hazardous track sections including within tunnels.

Numerous line sections in Europe and Asia are already successfully controlled and safeguarded by SIL.VIA. Flexible and cost-effective solutions make our interlocking systems attractive for projects of various size.

Additionally, SIL.VIA may be expanded or upgraded anytime without significantly affecting train operation in accordance to the demands of the ongoing technological progress.

ESTW workstation

Jungfrau Railway, Switzerland



Shunting yard interlocking systems and electrical locally operated points (EOW)

HIGH EFFICIENCY

Electrical locally operated points (EOW) are used in railway facilities with simplified operation under "driving under line of sight" conditions. In marshalling and shunting yards, when remote-controlled locomotives are deployed, as well as in stabling and run-off tracks, they provide convenient operation and maximum safety.

The EOW achieves significant scale economies in railway operation, because the train driver can independently set the points. Depending on the customer's requirements, facilities can also be centrally controlled and monitored. By adding a train control and monitoring system and further signal control modules for the reinforcement of the existing computer infrastructure, a realisation of the EOW as an interlocking unit for a shunting yard is feasible.

For more than 15 years, we have been providing our EOW solutions to industrial companies. Since 2010, we have the EBA (Federal Railway Authority) approval for supplying wayside equipment to the Deutsche Bahn.

EOW facility for RWE in Frechen

VGF depot in Frankfurt/Main

SETTING SIGNALS

POINTS CONTROLLERS, SIGNALLING INSTALLATIONS AND DEPOT CONTROLLERS

BBR points controllers are serving to control and safeguard point setting mechanisms in signaling installations and turnout areas in public rail transport networks. They are compatible with the current setting devices of different point machine manufacturers and can be flexibly adapted to all operating requirements.

Points controllers are also an integral component of our rail signalling systems for safeguarding branching and merging line sections.

In their variant as multiple points controllers, they are used in depots of different sizes. The safeguarding of points setting actions is accomplished through BBR point blocking circuits or axle counters. Optionally, the controls can be supplemented with systems for automated operation management, vehicle identification, vehicle scheduling and train number tracking. Displaying and influencing the operating procedure is performed either locally on site by using control modules or by centrally located remote operator consoles.

Our LED matrix signalling devices are characterised by excellent recognisability and a high availability. Extremely low maintenance efforts, low energy consumption and long life ensure efficient operation.

Left: VGF workshop depot
Right: Schematic track layout

PZB-600M track magnet,
Bavarian Zugspitzbahn

Best communication

Inductive data transmission

With respect to vehicle and trackside communication equipment, we have a wealth of experience and diverse references. The principle foundation of these systems is the inductive data transmission (IMU). The main objectives of our IMU systems are to reduce the workload for the operating personnel and to rationalise daily railway operations. Depending on the level of detail demanded for the information to be transmitted, different variants of data transmission can be chosen. Applications range from train priorisation management in public transport and train detection systems up to points controllers and signaling installations.

Safety first

Train control systems

Our intermittent automatic train control and protection systems (ATP/PZB) are used as automatic train stop devices in conjunction with a proceed signal or speed monitoring installations. Thereby they provide an important contribution for safeguarding line sections and for protecting train runs against dangerous situations. Optional components can be used to transmit an upgraded signal aspect to the vehicle's on-board controller. The benefits are a more economical driving operation and an increasing of line capacities.

Our vehicle and track equipment is successfully applied both at home and abroad. Well-known vehicle manufacturers are amongst our business partners and they trust in our products.

EWIS train identification
transponder system

PZB-1050
track coupling coil

Passenger information displays in Messe Dusseldorf

WELL INFORMED TO YOUR DESTINATION

DYNAMIC PASSENGER INFORMATION SYSTEMS

Our MOFIS® modular passenger information system ensures a sustainable customer satisfaction in public transport. At bus and railway platforms, it provides reliable dynamic data of arrival and departure times. The possibility of handling connecting services including intermodal traffic enables an optimisation of the driving operation – without unnecessary waiting times for passengers. At the same time special information such as operating instructions or advertising can be embedded as ticker text or graphic image into the system.

The modular design makes it possible to integrate additional MOFIS® system components into existing installations. Station displays are available in various sizes and designs for indoor and outdoor application. On request, we complement the visual display with public announcements (text-to-speech). The data is supplied via standardised interfaces, digital data radio or GPRS.

By means of our interactive MOFIS®MEDIA.MIP LCD touch screen, passengers can intuitively access to all stored information such as timetables, tariffs and route network maps. Thus MOFIS®MEDIA.MIP is pioneering the replacing all conventional printed tables on train stations. The positive self-presentation of the operator company is intensified. The versatility makes our system attractive for various applications.

Display pillar in Cologne

Expertise for today and tomorrow

Caring for the future suitability of your systems

In recent years, we have successfully positioned ourselves in the international market and have implemented various projects in Europe, North Africa, Middle and Far East.

Our products meet the highest quality standards. We are certified according to ISO 9001 and we are approved Q1 supplier of the Deutsche Bahn. With the IRIS certification we achieved another important milestone in a consistent quality management.

Many international large urban transport operators as well as regional and industrial railways trust our products and expertise. With the extension of our product range through the SIL.VIA SIL 4 interlocking system, we have prepared ourselves to comply with the current and future requirements of international railway operators.

We continually strive to improve our company. Usage of the latest technologies, intensive cooperation with universities and the promotion of technical training are essential to our future success – because we are eager to face the challenges of changing markets in the future.

Contact

Our competent staff will take care of you personally. Convince yourself of our services' quality. We are looking forward to your task.

We would like to invite you for a personal consultation with us to Braunschweig in order to create an individual requirement profile with you for your system. Alternatively we can work out a solution directly on location.

Please feel free to contact us!

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4/2015