Based in Europe, globally present

The various companies in the Schaltbau Group have sales and manufacturing facilities worldwide. They also work together with external sales partners.

With their specialised knowledge and a high degree of product innovation, the companies in our Group have worked hard to win the confidence of their customers and strive continually to strengthen their current market position through well-targeted research and development activities. Organic growth is the result of innovative products and solutions, the concentration on new target groups and greater market penetration.
Schaltbau Group
A leading technology partner and innovation driver

With annual Group revenue in the region of EUR 525 million and around 3,000 employees at 28 locations, Schaltbau Group is an internationally leading supplier of systems and components in the field of transportation technology and the capital goods industry. With Schaltbau, Bode, Pintsch and SBRS as their core brands, Schaltbau Group companies develop a wide range of high-quality technologies and customer-specific technological solutions for rolling stock, rail infrastructure, road vehicles and commercial vehicles. As one of the few specialists for smart DC energy concepts, the Schaltbau Group is also a driver of innovation for the fast-growing markets of tomorrow such as new mobility, new energy and new industry.

Market orientation
Versatilely positioned – internationally leading

The Schaltbau Group is a leading international expert in energy and mobility and has the key technological core competencies to support its customers in the development of integrated mobility concepts and smart energy solutions.

<table>
<thead>
<tr>
<th>Travelling safely</th>
<th>The full load of mobility</th>
<th>More power for electricity</th>
<th>Efficiency in production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient solutions provide innovation, safety and comfort in trains, buses and commercial vehicles.</td>
<td>As experienced specialists, we are paving the way for sustainable, safe mobility concepts, both now and in the future.</td>
<td>We devise solutions for energy conversion, storage and utilisation that are more efficient and environmentally compatible.</td>
<td>As direct current experts, we offer optimal solutions for the efficient operation of industrial plants.</td>
</tr>
</tbody>
</table>

Core brands of the Schaltbau group

Leading in mobile and stationary transportation technology and electromechanical components

Bode
The Door
Bode is one of the world’s leading suppliers of innovative door and access systems for trains, buses, commercial and electric vehicles and the number one in Europe.

Pintsch
Safety For Rail
Pintsch stands for safety and availability in national and international rail traffic. As a manufacturer of safety-relevant products for railway infrastructure, PINTSCH focuses on the provision of systems, components and services.

Schaltbau
DC Power Under Control
Schaltbau GmbH has been a global leader in the development and manufacture of electromechanical components for rail technology and industry and is increasingly occupying the young markets of New Energy and New Mobility.

Schaltbau Group – Keyfacts 2021
Sales: €579m
Employees worldwide: 3,415
Subsidiaries: 30
Countries: 14
Schaltbau GmbH Group

DC Power Under Control

Schaltbau stands for contactors, snap-action switches, connectors, railway components and complete driver's cab equipment that meet the highest safety requirements. Since 1929, we have been responsible for safe operation in rail transport and today we also protect systems in safety-relevant industrial applications, renewable energy with a focus on generation and storage technology, as well as in electromobility. For our customers, we are guided by the highest safety standards, especially in direct current technology, and create reliable solutions for your applications. Electrical energy is our passion.

Schaltbau worldwide

Subsidiaries, representative offices, sales partners

Locations:
- Germany, Austria, France, UK, Italy, Russia, South Africa, China, India and USA

Headquarters:
- Munich, Germany

Turnover:
- 2022: €168m consolidated

Staff:
- 2022: 1,120

Products/markets:
- Electromechanical components and customised solutions in industrial applications, renewable energy, electromobility, automation and railway technology

Turnover in million Euro, consolidated

Employees, key date December 2022

The Schaltbau GmbH Group has a global presence with 11 foreign subsidiaries / representative offices and more than 40 sales partners

Algeria, China PR & Hong Kong SAR, Greece, Libya, Portugal, Spain, Ukraine
Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Latvia, Lithuania, Malaysia, Monaco, Morocco, Norway, Philippines, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, The Netherlands, Tunisia, Turkey, USA, Vietnam, United Kingdom
Close to the customer worldwide

Companies, representative offices
The Schaltbau 360° competence

C Consulting

Experts are the best consultants. Schaltbau is a specialist in electromechanical components and customer-specific solutions with decades of experience in development and manufacture.

+ Expertise
  Benefit from the Schaltbau know-how

+ Consulting
  Experienced sales engineers work on-site with you

+ Solution
  Cooperation spells success

A Application

No need to reinvent the wheel! Schaltbau sales engineers have access to a treasure trove of knowledge and experience including a host of realized applications. Thus you will benefit from analogies and empirical data that may be of some value for your application.

+ Customer
  Added value and maximum benefit for your solution

+ Safe
  Safety for man and machine in your application

+ Cost-effective
  Robust, no maintenance, long life

P Product

The right solution may eventually be an item from our product line, a special variant with little need for adaptation, or a completely new design - because customizing is standard with us!

3 possibilities – 1 solution

+ Pick-to-order
  Existing product from our product line

+ Configure-to-order
  Well-proven and tested special variant with little need of adaptation

+ Design-to-order
  Completely new development to customer requirements
Our diverse solutions for applications are used in a whole host of systems around the globe. Safety and reliability are our greatest good. We contribute our experience from railway engineering to other markets. Our products are designed to protect your systems and ensure personal safety.

Electromechanical components and customer specific solutions from Schaltbau for a wide variety of applications.

RAILWAY

- Safely on track
- Switching and controlling features which meet the highest requirements.
- For goods and passengers.

INDUSTRY

- Reliable in production
- Certified variations on safety-relevant solutions.
- For man and machine.

NEW ENERGY

- More power for electricity
- Top-notch safety for stationary energy supply systems.
- For renewable energies.

NEW MOBILITY

- Safe other way
- Safely disconnecting high voltages in electric vehicles.
- For tomorrow’s solutions.

Applications:
- Light rail
- EMUs / DMUs
- Suburban trains
- Underground trains
- High speed trains

Applications:
- Machinery and plant engineering
- Tunnel and Mining
- Medical technology
- Battery test stands
- Building control
- Test systems
- DC power network

Applications:
- Stationary battery energy storages
- Wind turbines and PV systems
- Tracking systems for wind turbines and PV systems
- Fuel cells
- Battery charging stations
- Energy Conversion
- Battery second life

Applications:
- Electric buses and trucks
- Electric cars
- Electric vehicles for intralogistics (Material Handling Equipment & AGV’s)
- Battery charging stations
- Battery test stands
- Maritime charging and propulsion systems

rail.schaltbau.com
industry.schaltbau.com
energy.schaltbau.com
mobility.schaltbau.com
Schaltbau is a brand name for connectors, snap-action switches, contactors, electrics for rolling stock and complete drivers cab equipment that fully conform to the highest safety standards. Thus you will find worldwide in all branches of industry, in which electrical systems have to be connected, switched and controlled reliably under harsh ambient conditions, electromechanical components and customer specific solutions from Schaltbau.

Products

Decades of experience in engineering and production

Schaltbau is a brand name for connectors, snap-action switches, contactors, electrics for rolling stock and complete drivers cab equipment that fully conform to the highest safety standards. Thus you will find worldwide in all branches of industry, in which electrical systems have to be connected, switched and controlled reliably under harsh ambient conditions, electromechanical components and customer specific solutions from Schaltbau.

Connectors
High-quality connectors for industry, transportation and telecommunications.
Connecting reliably under extreme conditions.

Snap-action switches
Our snap-action switches comply with high standards for safety circuits.
Switching with precision when it really matters.

DC and AC contactors
Users in industry and the rail sector benefit from our know-how in switching high currents.
Reliably extinguishing the electric arc.

Control devices
Our electrics for rolling stock make railway vehicles both safe and comfortable.
Arriving punctually.

Service
Planned maintenance and modernisation. Our know-how ensures safe operation.
Feel in good hands.
Connectors

Schaltbau connectors are characterized by: long life and rugged design, up to 10,000 mating cycles, tightness up to IP69K, high material and temperature resistance as well as resistance to shock and vibration. This makes them ideally suited to be used for years of continuous operation and under harsh environmental conditions.

Reliable connections

+ for transportation systems
+ to railway and industry standards
+ for signal and data transmission
+ for industrial trucks
+ to customer requirements

Connectors must ensure reliable transmission of energy and signals – coping with high voltages, harsh environments and the rough conditions of rail traffic. Connectors from Schaltbau are especially designed to meet these requirements. Where safety and health of human beings are dependent on technology – as in transportation, mechanical engineering, lighting, food processing, battery charging, mining or offshore operations – the rugged heavy-duty connectors from Schaltbau are first choice.

For further information visit www.schaltbau.info/connectors
Snap-action switches

Featuring double-break contacts and positive opening operation, snap-action switches from Schaltbau have proven for 40 years to be the ideal components for failsafe systems. Both a high breaking capacity and a design life of up to 10 million operating cycles provide solid reasons to make Schaltbau switches the components of choice for realising the functional safety of machines and systems.

Switches for failsafe systems

- Double-break contacts and positive opening operation
- Variants for extreme conditions
- Mechanical endurance up to 10 million cycles
- 3 sizes
- Continuous thermal current up to 20 A
- Sealed up to IP67 (IP code, IEC 60529)
- Temperature range up to -55°C ... +85°C
- Gold contacts, optional

According to the internationally accepted rules of scuba diving it is not allowed for safety reasons to dive without a buddy (second diver). Likewise, Schaltbau has developed such a buddy for the micro switch since 1975: a snap-action switch with double-break contacts and positive opening operation, which guarantees that the contacts will open, even when they have become welded together or the spring of the snap mechanism has broken. So there is a reliable alternative to the micro switch – the switch with double safety from Schaltbau.

For more information visit www.schaltbau.info/switches
The quality of a contactor is best seen when switching off. Electric arcs are ignited between the contacts as they open – just like lightning bolts in a thundercloud. In order to extinguish these arcs we have developed a patented contactor concept by which the arc is driven into the arc chute and extinguished within a few milliseconds. Thus Schaltbau can offer real equipment safety. For the innovative contactor technology prevents the contacts from welding or burning and the equipment from being totally destroyed as a result of a component failure.

Schaltbau contactors play a key role in the mobility of the future. Compact DC switching devices ensure galvanic isolation between the battery and the on-board network in the safety circuit and switch reliably in the event of a fault.

With renewable energies and the use of DC networks in manufacturing, the switching of high DC loads is gaining in significance.

Thanks to many years of experience in railway technology Schaltbau supplies contactors for all fields of application, in which load circuits have to be safely switched and disconnected.

**Contactors for various applications**

- DC contactors in the High-Voltage Battery Disconnect Unit (HV-BDU) of electric vehicles
- DC high-voltage contactors for battery charging
- Universal compact contactors for DC and AC up to 1,500 V
- HV contactors for renewable energies up to 3,000 V and 2,000 A
- Contactors for traction inverters, DC and AC, up to 3,000 V and 2,000 A
- Contactors for auxiliaries/HVAC
- Traction contactors for AC up to 400 Hz
Control devices

Schaltbau develops and manufactures complete driver cabs as well as various components and systems for applications in passenger coaches, locomotives, EMUs, DMUs, special vehicles and bus drive systems, that meet all requirements for quality, reliability, safety and service life.

With our specific know-how and technical capacity, we are the ideal source of pioneering, economical concepts.

Equipment for drivers cab and passenger use

- Complete drivers cab equipment
- Interactive displays
- Master controllers and toggle switches
- Control panel assemblies and emergency brake handles
- Electronic buzzers

Modern transport systems demand reliable and high-quality components working in flawless unison like a rider and steed. Schaltbau’s control and signalling devices work to ensure outstanding safety and short downtimes in rail vehicles around the globe. Their components deliver on the highest standards, working impeccably and ensuring efficient and smooth operations on a daily basis. As a result, both operators and manufacturers always enjoy a smooth ride and unwavering control despite the sometimes challenging nature of the rail industry.

WE HAVE EVERYTHING UNDER CONTROL

For more information visit www.schaltbau.info/rail
WE ENSURE SMOOTH OPERATION

Maintenance as needed and modernization of complete rail vehicles or their parts is crucial for the operation and service life. A flawless technical condition is an absolute must for the safe, punctual and economical operation of your rail vehicle. Downtimes can instantly cost you customers’ trust and money. In addition to the loss in revenue and higher costs, they can also harm the company’s image because nothing is more annoying or worrying for the passengers and transporters than delays or cancellations.

«Our service is local» – we provide our services wherever they are required. As part of this, we are able to draw on an extensive international network within the Schaltbau Group as well as on many Schaltbau partners. Efficient organisation and regular depot visits come as standard.

For more information visit www.schaltbau.info/service-en

For components and systems on rolling stock

+ Repairs
+ Maintenance
+ Overhaul
+ Replacement parts
+ Drop-In
+ Logistics
+ Assembly
+ Analysis
+ Training

COST-EFFICIENT MAINTENANCE + HIGH AVAILABILITY
HIGHLY CONVENIENT + END-TO-END PLANNING CERTAINTY
Safety and sustainability

Safety for man and machine

Schaltbau industrial products such as connectors and switchgear are particularly suited to meet the more stringent requirements of the new EU machinery directive or industrial safety and health protection. If you are looking for components for your safety-related application, a look into our product line would be worthwhile. You can also learn a lot from our many realized applications for your particular application situation. Or benefit from our consulting expertise in order to find out how to implement optimal safety with maximum cost-effectiveness.

Certified safety

Safety and reliability are our greatest assets. We’ve been producing snap-action switches with positive opening operation for four decades and also offer the greatest variety. Every series is built, tested and certified according to VDE, UL and when necessary even CCC.

Quality and the environment

Active, innovative, for the long run

The customer is the main focus of our thoughts and deeds. Comprehensive quality management is the guarantee of customer satisfaction and therefore safeguards the long-term success of Schaltbau GmbH. We are aware of our social responsibility for maintaining the natural environment and act accordingly.

The future is sustainability

Sustainability and the „green spirit“ are our inspiration. As a globally operating company we have a particularly high responsibility for the sustainable development of products that meet the requirements of our customers and comply with the regulations for the protection of human health, safety and the environment. For us a sustainable development also includes both the responsible use of resources and the full exploitation of all possibilities to save energy.
RAILWAY
Safely on track. Switching and controlling features which meet the highest requirements. For goods and passengers.

INDUSTRY
Reliable in production. Certified variations on safety-relevant solutions. For man and machine.

NEW ENERGY
More power for electricity. Top-notch safety for stationary energy supply systems. For renewable energies.

NEW MOBILITY
Safe either way. Safely disconnecting high voltages in electric vehicles. For tomorrow’s mobility solutions.

For detailed information on our products and services visit www.schaltbau.com – or give us a call!

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