

kontron

Kontron AIS GmbH



VarGBS

Variable Route and Rail Brake Control for Marshalling and Hump Yards

Our variable route and rail brake control VarGBS is a real-time control system for hump yards. With VarGBS, you can control route and speed of each individual freight wagon until it comes to a standstill ready for coupling on the sorting siding. As a modular product, it has the flexibility to meet all your requirements in terms of performance, yard size and topology. We support you throughout the entire life cycle of the system, e. g. with predictive maintenance, the replacement of single components and the complete replacement of the control platform (retrofit).

Your benefits

- › High availability, reliable shunting quality and short throughput times
- › Gentle handling of freight cars and loads
- › Contribution to increasing the effectiveness and Efficiency of rail freight transport
- › Integrated maintenance function for early detection of your maintenance needs for optimal maintenance
- › Optimal use of the track brakes for maximized service life
- › Reduction of downtime and shunting errors
- › Extended lifespan thanks to retrofit

Benefits in detail

Scalability

- › Customised to your needs - from small to high performance systems
- › in terms of size, equipment level and topology of your yard

Options

- › Option for fully automatic route control or brake control
- › Option for conveyor systems in the sorting siding to increase the performance of your system

Optimal use of rail brakes

- › Maximize the life span of your rail brakes
- › Minimum maintenance for efficient use

Preventive and predictive maintenance

- › Integrated maintenance function for early detection of maintenance needs
- › Remote support

High system availability and shunting quality

- › Proven control system for 30 years
- › High availability, reliable shunting quality and fast throughput times

Retrofit for a longer lifespan

- › Renewal of the control technology during operation
- › Replacement of individual components, control cabinets or complete control platform

Safe and approved control system

- › Designed and approved to meet SIL 2 safety requirements according to DIN EN 50128 (CENELEC)





Modular

Scalable components with regard to topography, plant size and performance



Reliable

30 years of experience in the field of brake control in train formation systems



Pre-qualified

Prequalified supplier for brake and conveyor system controls at the Deutsche Bahn AG

Optimized control and monitoring for the efficient operation of train formation yards

Flexible and adaptable

- › Various topology profiles (pre-brakes and main-brakes)
- › Sorting siding brakes
- › End of track brakes and gradient compensation brakes
- › Hydraulic and electrodynamic rail brakes
- › Control of conveying systems

Comprehensive functions and self-monitoring system for maximum safety

- › Speed, distance and time calculation in real-time
- › Extended collision protection
- › Detection of potentially critical situations
- › Based on the determination of the rolling characteristic of the wagons, a prediction of the speed profile and rolling distance is calculated

Optimize processes with comprehensive data collection and transparency

- › Transparency through comprehensive data collection with documentation, logging and diagnostics for predictive maintenance
- › Operation and monitoring for operators and maintenance staff, even on mobile devices
- › Interface to dispatching system

Precise processes

- › Controlling wagon distance in the distribution zone and sorting siding
- › Target braking ready for coupling in the sorting siding
- › Gentle handling of the wagons

Functional components

- › Operator workstation
- › Maintenance station
- › Detection of wagon parameters
- › Operational sequence control
- › Axle data measurement unit
- › Weather station
- › Control of pre-brakes
- › Control of main brakes
- › Control of Sorting siding brakes
- › Control of Gradient compensation brakes
- › Track occupancy management on the sorting siding
- › GUI for hump throughput and operation log
- › Bridge to disposition system

Use of weather data from our metrological station

- › Weather management sensor for
 - › Wind direction and wind force
 - › Surface and air temperature
 - › Relative humidity and precipitation intensity
- › Determine weather conditions using weather models for
 - › Rail condition
 - › Fog, dew and frost
 - › Drying, sublimation
 - › Ice formation



Kontron AIS GmbH

Kontron AIS GmbH sets the benchmark in industrial software – for more than 30 years and with an experienced team of over 250 employees. The proven software products and customized digitalization solutions enable machine and equipment builders as well as factory operators to break new ground in automation and secure long-term competitive advantages. Together with its customers, Kontron AIS implements worldwide cross-industry, intelligent digitalization strategies and solutions for the smart manufacturing of tomorrow.

As a subsidiary of the Kontron AG, Kontron AIS offers integrated, end-to-end IoT concepts consisting of hardware and software as well as worldwide project management, service, and support thanks to a global network.



Software Development



Consulting and Requirement Engineering



Project Management and Training



Supply of Hardware for Control and IT Systems



On-Site Installation and Commissioning



Flexible, Global Service and Support

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