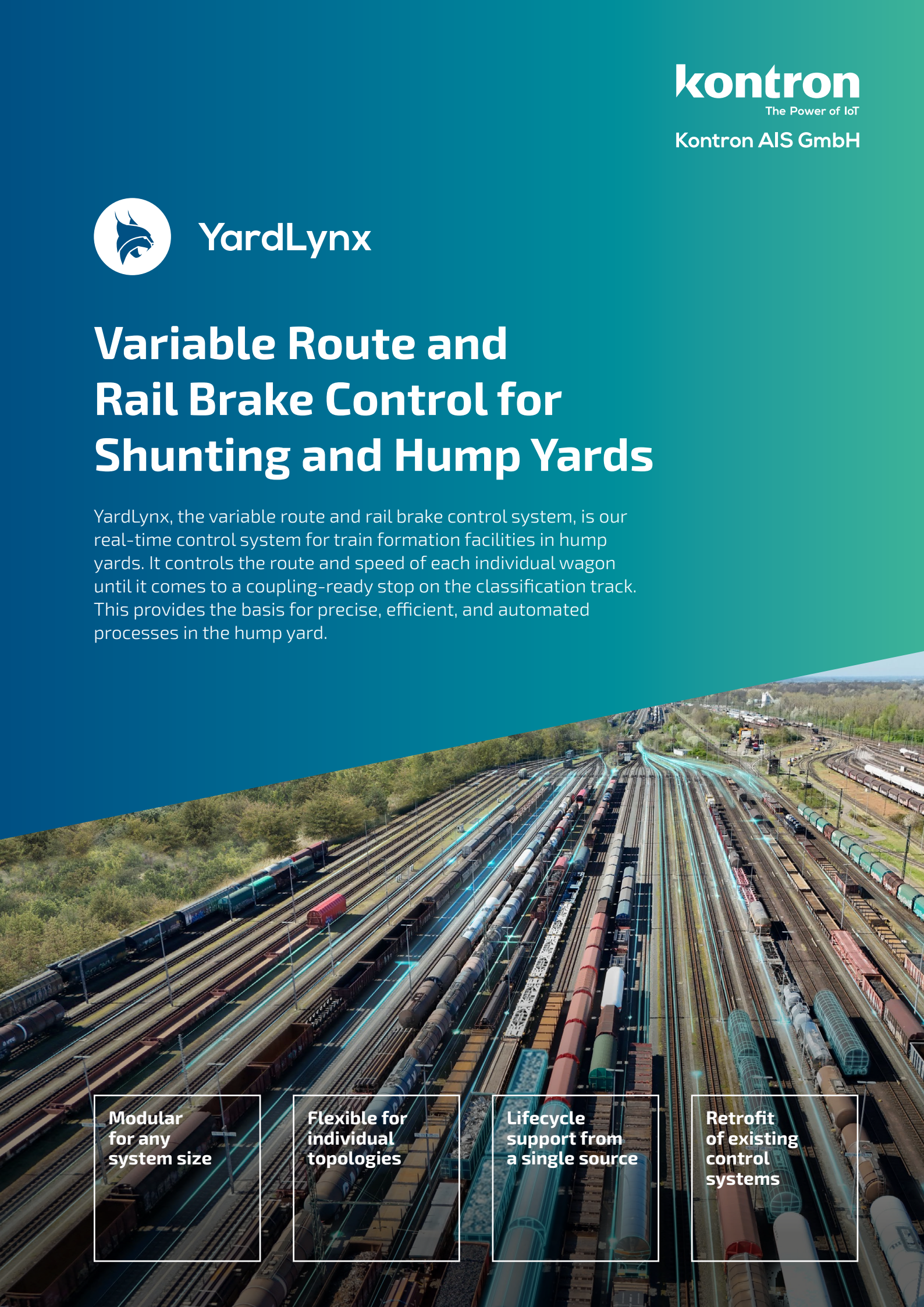


**kontron**

The Power of IoT

Kontron AIS GmbH

**YardLynx**

Variable Route and Rail Brake Control for Shunting and Hump Yards

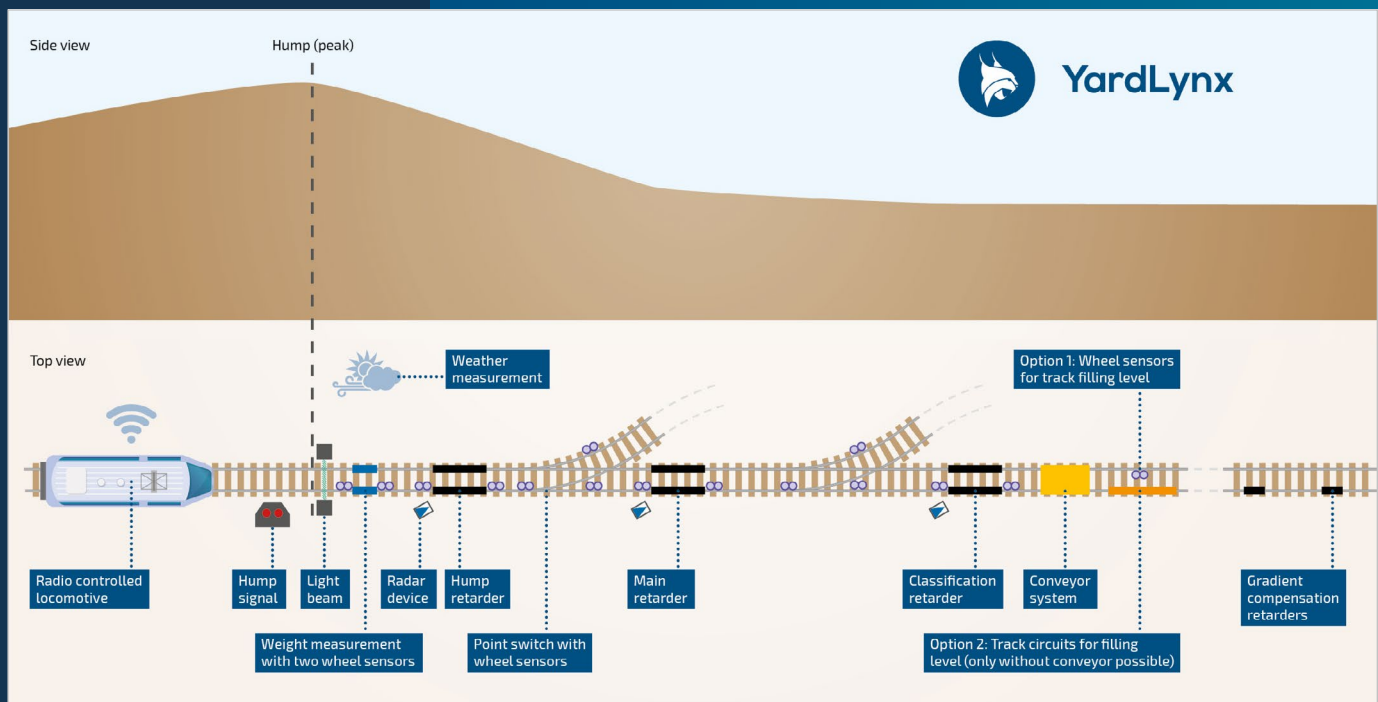
YardLynx, the variable route and rail brake control system, is our real-time control system for train formation facilities in hump yards. It controls the route and speed of each individual wagon until it comes to a coupling-ready stop on the classification track. This provides the basis for precise, efficient, and automated processes in the hump yard.

**Modular
for any
system size**

**Flexible for
individual
topologies**

**Lifecycle
support from
a single source**

**Retrofit
of existing
control
systems**



Benefits of YardLynx

Certified safety

SIL2 according to EN 50716 (CENELEC) and a prequalified supplier to Deutsche Bahn AG

High availability

Designed for long-term operation and modernization during ongoing operations

High throughput

Increased effectiveness and efficiency of the hump yard

Modular components

Scalable system configurations for different topographies, yard sizes and performance levels

Reduced operating costs

Predictive maintenance, remote maintenance, and digital diagnostic functions

Reduced manual work

Elimination of hazardous work on the track, such as placing drag shoes

Scalability

- › Individual adaptation to your requirements, from small systems to high-performance yards
- › In terms of your system's size, automation level, and topology

Freedom of choice

- › Option for fully automated route control or brake control
- › Option for conveyors in the classification track to increase yard performance

Optimal use of retarders

- › Maximize the life span of your retarder
- › Minimize maintenance for efficient use

Preventive and predictive maintenance

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

High system availability and shunting quality

- › Proven control system with 30 years of experience
- › High availability, reliable shunting quality, gentle handling of wagons, and short shunting times

Technology migration for obsolete components

- › Modernization of control technology while the system remains in operation
- › Replacement of individual components or control cabinets or the complete system

Safe and approved control system

- › Developed and approved in accordance with SIL2 safety requirements under EN 50716 (CENELEC)



30
years of
experience

25 systems
commissioned

Installations at the

largest site:



8 main retarders
62 classification retarders
55 conveyors
600 gradient compensation
retarders

2,000
retarders integrated



200
conveyors integrated

Full Automation of Hump Yards with YardLynx

Safety

- › Real-time shunting dynamics
- › Advanced collision protection
- › Detection of potentially critical situations

Flexible adaptation to any yard size and topology

- › Points and signals
- › Hump and main retarders
- › Classification retarders
- › Gradient compensation and end-of-track retarders
- › Hydraulic, pneumatic, and electrodynamic retarders
- › Conveyors

Precision

- › Control of wagon spacing in the distribution zone and classification track
- › Coupling-ready target-speed braking on the classification track
- › Gentle handling of wagons

Weather data for safe operation

- › Wind direction, wind speed, track and air temperature, humidity, and precipitation intensity
- › Detection of fog, dew, frost, ice formation, drying, and sublimation

Transparency

- › Comprehensive acquisition, monitoring, and logging of system parameters
- › Early detection of wear trends for predictive maintenance
- › Integration with the dispatching system for integrated logistics



eRetarder:
Electrodynamic
Classification Retarder

The cost-effective and environmentally responsible alternative to hydraulic braking systems, with lower investment, operating, and maintenance costs.

Operator-HMI

Maintenance HMI

Equipment-Cloud® Connector

Management- & Visualization Server

Disposition System Connector

Neighbor Interlocking Connector

Remote Connector



YardLynx Route



YardLynx Brake



YardLynx Push

Point Control

Track
Occupancy
Detection

Signaling

Prognosis

Disposition

Cut
Detection

Loc Control/
v₀-Variation

Prognosis

Retarder
& Supply
Control

Track Filling
Management

Data
Recording

Preventive/
Predictive
Maintenance

Clearing

Conveying

Points

Signals

Wheel
Sensors

Radar
Devices

Light
Beam

Retarder
Sensor

Retarder

Retarder
Supply
Station

Weighing
System

Weather
Station

Conveyor

About Kontron AIS

We set the benchmark in industrial software –

for more than 30 years and with an experienced team of over 230 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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