



CUBECONTROL FAMILY



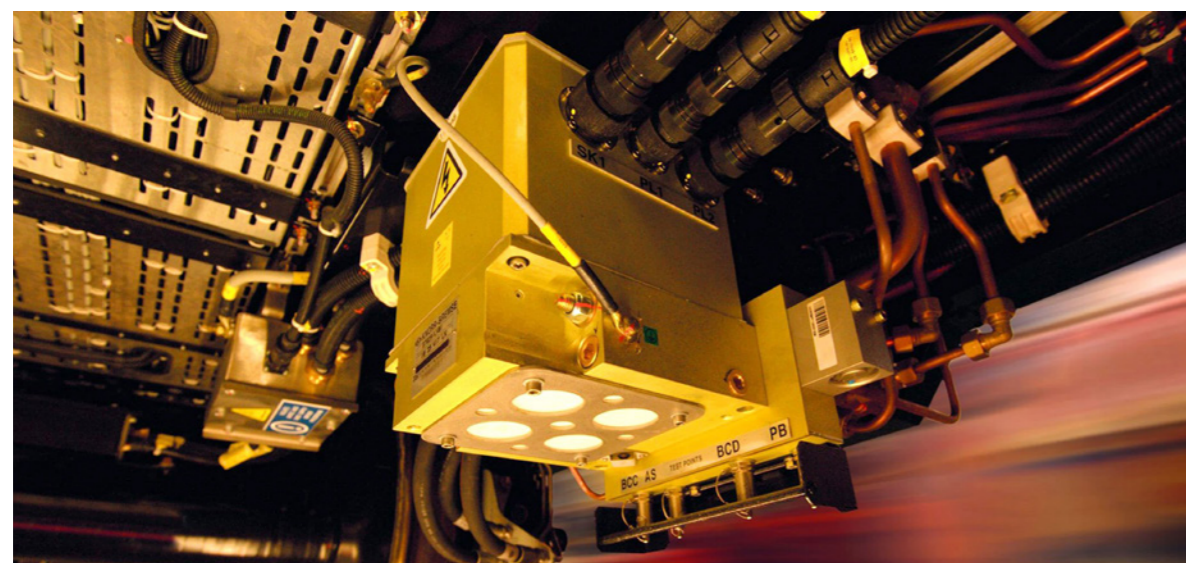
KNORR-BREMSE

Over 130,000 units in the field. Successfully deployed worldwide for two decades.



Now also available for regional, commuter rail and high-speed trains.

Knorr-Bremse made rail engineering history with the decentralized Brake Control System Family originally known as EP2002. Featuring new functionalities, the rebranded CubeControl Family is now ready to write the next chapter. The new deceleration control system ensures reproducible braking distances even in rapidly changing environmental conditions. New Ethernet specifications enable condition-based maintenance. The new Wheel Slide Protection algorithm reduces braking distances even under extremely low adhesion. And all this is now also fully available for the mainline sector.



The CubeControl family supporting autonomous train operation since 2008.



CubeControl Gateway Valve



CubeControl Smart Valve

CubeControl



System benefits

Fully integrated and standardized solution concentrated in a compact underfloor-ready cube. Direct EP brake control for service and emergency brake with 2-channel WSP.

Operations

- Reduced operational costs
- Operational gains in line capacity and operational stability thanks to Reproducible Braking Distance (RBD)
- Overhaul period of up to 12 years
- Reduced spare parts needed in stock
- Brake pipe and distributor compatibility

System properties

- Failure-resilient brake architecture
- Optimized braking performance
- Light & compact to maximize passenger space
- Faster installation and commissioning

Hardware & software

- Control external auxiliary functions
- Integrated service tool software tracks system status
- Inbuilt data storage capability
- Optional support for external distributor for indirect backup brake

Extended operational functions

- RBD included – new advanced functionality
- Brake disk temperature monitoring
- DNRA function for high-speed trains

Buildup

- Per-bogie control
- Electro-Pneumatic design: compact, lightweight & highly integrated
- No external WSP valves required

SMART functions

- Cybersecure Ethernet train-bus communication
- Integrated CBM functionality
- Remote accessibility and diagnostics
- Webserver based tooling

Applications

- Metro
- Regional & commuter trains
- High-speed trains

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