



HYDROCONTROL SMART

Electro Hydraulic Unit

HydroControl Smart is an extremely compact, lightweight and robust intelligent hydraulic unit concept in development that combines versions with or without integrated brake electronics, using one unified design. Designed for the demanding operating conditions of modern public transportation systems, it is suited to a wide range of vehicle types. Its high power density, modular extendable system layout, connectivity and data management features make it a perfect choice for hydraulic railway brake systems.



Customer benefits

- Compact electro-hydraulic unit with or without embedded brake electronics available
- Direct connection to Train Control and Management System, possible for embedded electronic versions
- Simplified and standardized interface
- Bogie-based data processing and management, possible for embedded electronic versions
- Reduced Carbon Footprint
- Cyber Security ready within Knorr-Bremse architecture



Applications

- Light rail vehicles
- Metros
- Monorails
- People movers



KNORR-BREMSE

HydroControl Smart Electro-Hydraulic Unit

Architecture / Interfaces

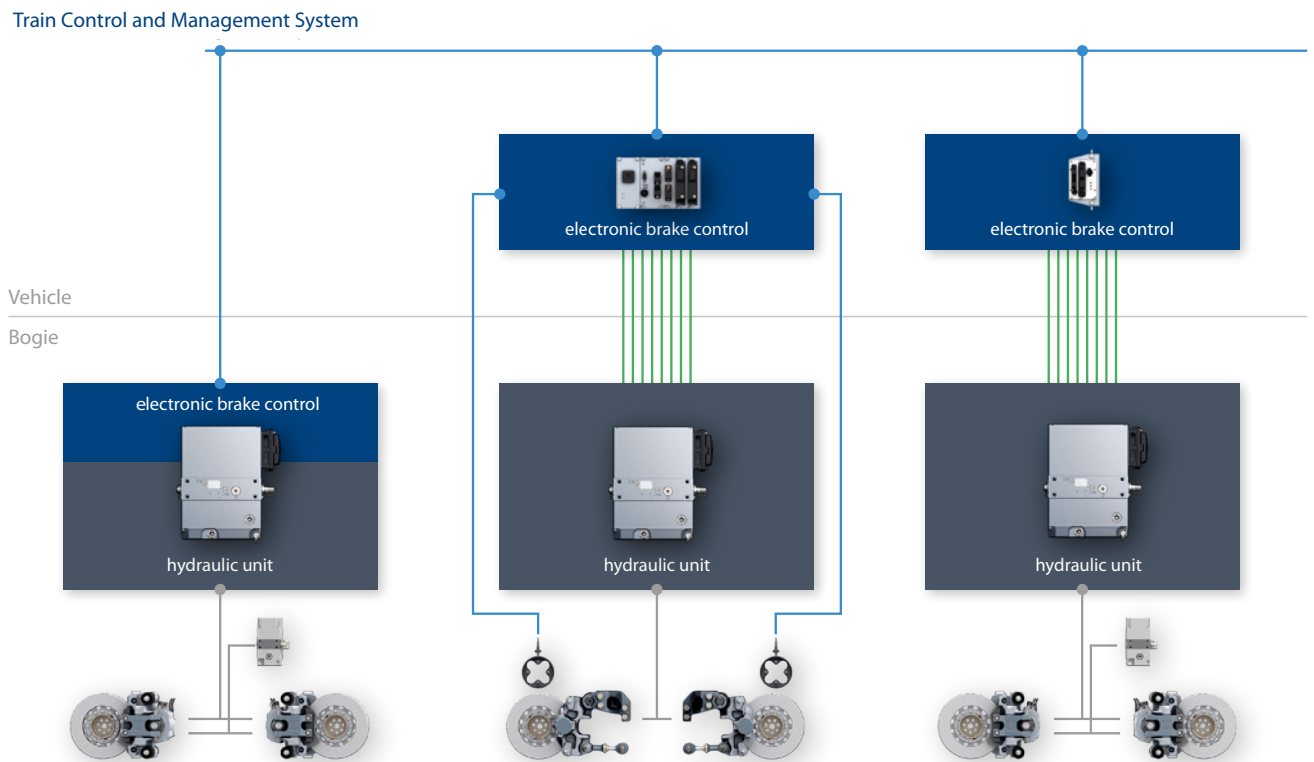
- Modular extendable system features
- Simplified and standardized design
- Unified electrical, mechanical and hydraulic interfaces for different brake applications
- With or without brake electronics integrated
- Service status via hardware signal available

Maintenance and Life Cycle

- Bogie-based data collection & management possible
- Digital ready: Connects to Knorr-Bremse Efficient Maintenance Solutions
- Self diagnosis integrated

Performance

- Size reduction by up to 60% on product level
- Weight reduction by up to 40% on product level
- High power density
- Reduction of oil volume by up to 15%
- Carbon Footprint reduced by up to 15%



HydroControl Smart merges standard electro-hydraulic units and brake electronics in one intelligent hydraulic unit.

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 **NEW YORK AIR BRAKE**

 **IFE**

 **MERAK**

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