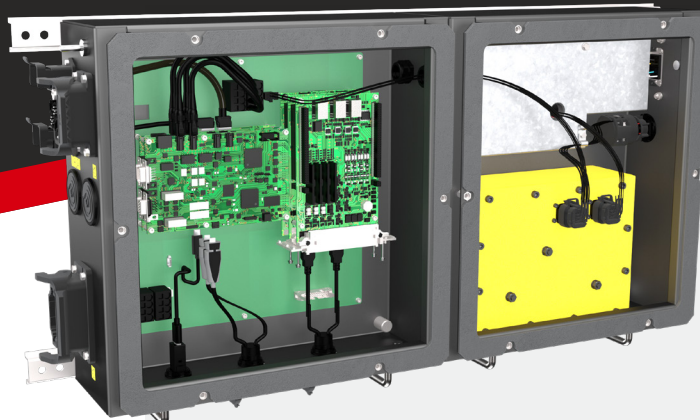




WAGON CENTRAL CONTROL UNIT

Designed for best train availability & upgradeability



SYSTEM PERIMETER AND TARGET APPLICATIONS

Wagon Central Control Unit for European UIC freight operation (freight cars), for new builds and existing assets upgrade.

Able to transmit @10Mb/s on the Freight – Ethernet Train Backbone allowing interoperable trainwide communication and compliance to train functions.

Hosts a 400V AC/DC power converter, battery management system and battery pack.

Scalable Hardware and SW platform to reach up to SIL4 functions.

Carries embedded wireless connectivity for Condition Based Maintenance and Over The Air updates.

Compatible with all wagons* independantly of existing brake system.

KEY FUNCTIONS

Train composition, Automatic brake test, Decoupling from locomotive, Decoupling from push button, Train integrity, train length, Wireless connectivity, embedded battery charging. Many functions are realised in conjunction with other sub-systems (coupler, brake monitoring).

KEY CUSTOMER BENEFITS

Top Performance

State of the art link aggregation on redundant ETB lines and redundant 400VAC supply.

Easy Maintenance

Local and remote access.

Upgradable

Future train functions.

Guaranteed interoperability

For new builds and retrofit of existing assets.

SPECIFICATIONS & FEATURES

Description	Parameters
Weight	21 kg without battery, 27 kg with battery
Width	413 mm
Length	832 mm
Height	170 mm
Train communication hardware	Single Pair Ethernet, 10 Mb/s up to 1000 m
Train communication inauguration	Train Topology Discovery Protocol
Train communication protocol	Train Real time Data Protocol
Train communication redundancy	Link aggregation
Power input rating	40W @ 400VAC
Power input redundancy	2
Wireless connectivity	4G/5G, cat M1/NB2
Connector types	Harting
Extendability	Fast ethernet port, 100Mb/s up to 100m
Battery pack	lithium-ion cells, Integrated battery management system
Battery pack life	up to 12 years
Explosion protection	Atex grade
Vibration conditions	cat 2
IP conditions	IP65
Climatic conditions	-40°C to +55°C
Battery pack climatic conditions	-25°C to +55°C
Color	RAL 7011

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