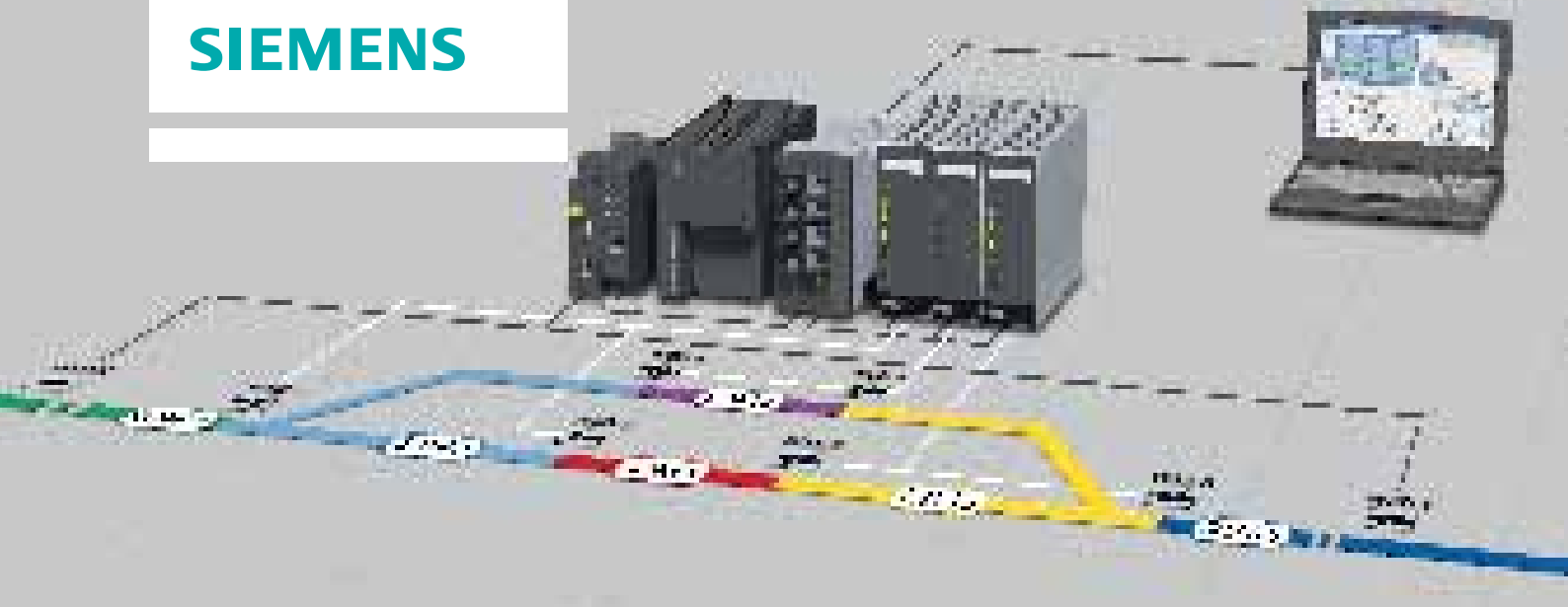


# SIEMENS



[siemens.com/mobility](http://siemens.com/mobility)

## Clearguard ACM 100 axle counting system

### Smart track vacancy detection for cost-effective operations

A track vacancy detection system supplies the information about whether a track in a particular section is clear or occupied, thereby permitting safe, trouble-free and efficient operations management.

The Clearguard ACM 100 axle counting system is made up of maintenance-free Clearguard ACM 100 modules which are programmed via an ID plug and combined with an Ethernet bus and Clearguard WSD wheel detectors into a fail-safe axle counting system.

The detection equipment used meets the latest compatibility requirements for cross-border traffic in Europe.

Fields of application:

- mainline and regional railways
- metro and tramway systems
- freight lines and depots
- main lines and secondary lines, station areas, point areas
- single-track and multiple-track lines
- lines with and without blocking
- all traction types
- all common types of car
- track sections of any length
- train speeds of up to 450 km/h

#### Benefits

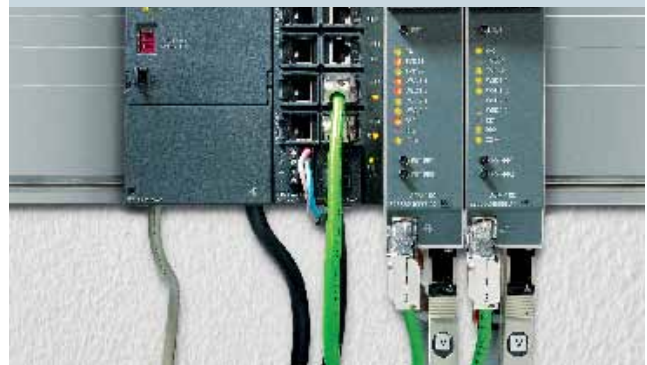
Connection to electronic and relay interlockings

HTML communication for attribute configuration, logging and diagnostics

Modular, compact hardware

Innovative diagnostic concept

Low-cost Clearguard WSD wheel detector





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## Technical data

Counting capacity 2,000 axles per track vacancy detection section  
20 axles per second for a Clearguard WSD wheel detector

Max. number of connectable wheel detectors per Clearguard ACM 2 Clearguard WSD wheel detectors

Max. number of detectable track vacancy detection sections per Clearguard ACM 2 track vacancy detection sections

Power consumption Clearguard WSD: 0.4 W  
Clearguard ACM: 7.8 W

Clearguard ACM supply voltage 24 V DC (21.6 V to 31.2 V DC), approx. 1 A residual ripple max. 100 mV

### Outputs

Relay contacts for DC  
Switching voltage 24 V (-10%) to 60 V (+20%) DC  
Switching current 2 mA to 0.25 A  
Switching power 15 W

Relay contacts for AC  
Switching voltage 24 V (-10%) to 110 V (+10%) AC  
Switching current 2 mA to 1 A  
Switching power 15 W

### Inputs

Voltage range 21.6 V to 35 V DC (3.5 mA to 6 mA)  
Current range up to 6 mA at 21.6 V to 72 V DC (with series resistor limited to 6 mA)

1 Clearguard ACM 100

2 Power transformer

3 Ethernet switch

4 Router

5 Clearguard WSD wheel detector (line)

6 Trackside connection box (line)

## References

- Norwegian National Railway Administration (NSB), Norway
- PT. KERETA API (Persero), Indonesia
- Rheinhäfen Karlsruhe GmbH (KVVH), Germany
- Swiss Federal Railways (SBB), Switzerland

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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.