

Clearguard ACM 200 Axle Counting System

Smart track vacancy detection for cost-effective operations

Rail Automation

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 200 axle counting system is made up of maintenance-free Clearguard ACM 200 modules which are programmed via an ID plug and combined using an Ethernet network and Clearguard ZP D 43 counting heads.

Fields of application:

- metro and tramway systems
- freight lines and depots
- main lines and secondary lines, station areas, switches
- single-track and multiple-track lines
- all traction types
- all common types of car
- track sections of any length
- train speeds of up to 400 km/h (250mph)

Benefits

- Connection to electronic and relay interlockings
- HTML communication for attribute configuration, logging and diagnostics
- Modular, compact hardware
- Deployment of Clearguard ZP D 43



Technical Data

Counting Capacity

Max. number of connectable wheel detectors per ACM

Max. number of detectable track vacancy detection sections per ACM 32,767 axles per track vacancy detection section 20 axles per second for the Clearguard ZP D 43 Two counting heads: Clearguard ZP D 43

2 track vacancy detection sections

Clearguard ZP D 43: 5 W Clearguard ACM: 7.8 W 24 V DC (21.6 V to 31.2 V DC), approx. 1 A

Outputs

Relay contacts for DC

Power consumption

ACM supply voltage

Switching voltage

Switching current Switching power

Relay contacts for AC

Switching voltage Switching current Switching power

Inputs

Voltage range Current range

Operating conditions

10 V DC to 72 V DC 10 V AC to 150 V AC 2 mA DC to 0.25 A 15 W, 2 mA AC bis 1 A

24 V (-10%) to 110 V (+10%) AC 2 mA to 1 A 15 W

21.6 V to 72 V DC (max. 6 mA) up to 6 mA at 21.6 V to 72 V DC (with series resistor limited to 6 mA) -40 °C to +70 °C



Clearguard ZP D 43 (DEK 43)



Trackside connection box (Clearguard ZP D 43 counting head)

The information in this document contains general descriptions of the technical options available. The required features should therefore be specified in each individual case at the time of closing the contract. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action and integrate each component into a holistic, state-of-the-art security concept. Third-party products that may be in use should also be considered. Clearguard® is registered trademark of Siemens AG.

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1. Clearguard ACM 200 2. Power Transformer 3. Ethernet Switch

4. Router

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