

Wheel Detection

Wheel Detection System RSR123-EIB

The Wheel Detection System RSR123-EIB is commonly used in the area of level crossings. Simple commissioning significantly simplifies integration.



Information

Wheel detection (SIL 4)



Applications

Track vacancy detection
Level crossing protection
Switching tasks



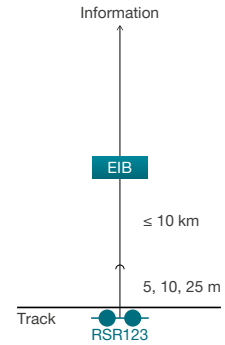
Benefits

Highly resistant to electromagnetic interferences
Convenient plug-in connection and rail claw
Interface via optocoupler or relay
No need of adjustments of the evaluation boards

RSR123-EIB

Based on the patented V.Mix Technology, the RSR123 combines different inductive sensing methods making it highly resistant to electromagnetic interferences caused by eddy current brakes or rail currents.

In the EIB evaluation board, the customer interface can be implemented via optocoupler or relay contacts.



EIB Evaluation board
RSR Wheel sensor

Technical Data



RSR123

EIB

Interfaces		Optocoupler or relay
Safety level		SIL 4
Temperature	-40 °C to +85 °C	-40 °C to +70 °C
Humidity	Up to 100%	Up to 100% (without condensation or ice formation for the entire temperature range)
Electromagnetic compatibility	EN 50121-4	EN 50121-4
Further conditions	UV resistance: yes Protection class: IP65 / IP68 to 8 kPa/60 min. Wheel diameter: 300 mm to 2 100 mm Speed: 0 km/h (static) to 450 km/h	Mechanical stress: 3M2 in accordance with EN 60721-3-3
Dimensions	Height: 60 mm Width: 270 mm Depth: 77 mm	Format: 19" housing for 100 mm x 160 mm boards Width: 4 width units Height: 3 height units

Optocoupler

Relay

Signal limits	Max. C-E voltage: 70 V DC Max. switching current: 10 mA Insulation voltage: 1 500 V AC to the sensor, 1 000 V AC for the supply, 500 V AC between the outputs	Max. voltage: 380 V AC or 125 V DC Max. switching current: 5 A Insulation voltage: up to 3 000 V AC, depending on the relay type
Power supply	Voltage: +19 V DC to +72 V DC Power: approx. 4.5 W per counting head Insulation voltage: 1 500 V AC	Voltage: +19 V DC to +72 V DC / +9,5 V DC to +36 V DC Power: approx. 4.5 W per counting head Insulation voltage: 1 500 V AC