



## 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



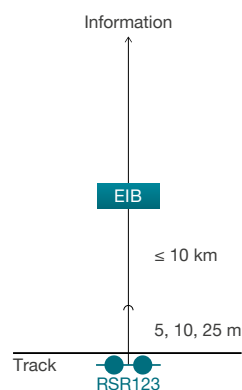
### Benefits

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
<b>Interfaces</b>		Optocoupler or relay
<b>Safety level</b>		SIL 4
<b>Temperature</b>	-40 °C to +85 °C	-40 °C to +70 °C
<b>Humidity</b>	Up to 100%	Up to 100% (without condensation or ice formation for the entire temperature range)
<b>Electromagnetic compatibility</b>	EN 50121-4	EN 50121-4
<b>Conditions</b>	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
<b>Dimensions</b>	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

	Optokoppler	Relais
<b>Dimensions</b>	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
<b>Power supply</b>	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