

## Wheel Detection

# Wheel Detection System RSR123-IMC

The Wheel Detection System RSR123-IMC can be used for a variety of different applications. Due to customer-specific adaptations, more than 70 configuration variants are already available.



### Information

Wheel detection (SIL 4)  
Direction (SIL 3 or SIL 4)



### Applications

Track vacancy detection  
Level crossing protection  
Switching tasks



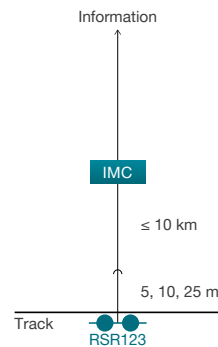
### Benefits

Highly resistant to electromagnetic interferences  
Convenient plug-in connection and rail claw  
Open interface via optocoupler or relay

# RSR123-IMC

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.

The IMC evaluation board can selectively output safe system occupation and direction information via optocouplers or relays.



**IMC** Evaluation board  
**RSR** Wheel Sensor

## Technical Data



### RSR123

### IMC

<b>Interfaces</b>		Optocoupler or relay
<b>Safety level</b>		SIL 3 or 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 8kPa/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 units Height: 3 height units
	<b>Optocoupler</b>	<b>Relay</b>
<b>Signal limits</b>	Max. C-E voltage: 72 V DC Max. switching current: 17 mA Insulation voltage: 2 800 V	Max. voltage: 72 V DC Max. switching current: 500 mA DC Insulation voltage: 800 V
<b>Power supply</b>	Voltage: +19 V DC to +72 V DC Power: approx. 3 W per counting head Insulation voltage: 3 100 V	Voltage: +19 V DC to +32 V DC Power: approx. 3 W per counting head Insulation voltage: 3 100 V