



Wheel Detection

Wheel Detection System RSR180-IMC

The Wheel Detection System RSR180-IMC can be used for a variety of different applications. Due to customer specific adaptation, more than 70 configuration variants are already available.



Information

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



Applications

Track vacancy detection as a component of the axle counter
Level crossing protection
Switching tasks



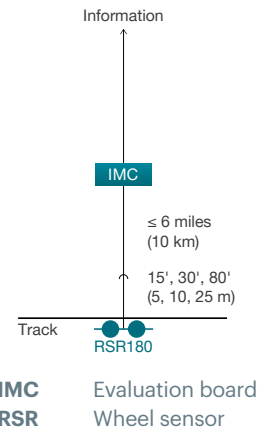
Benefits

Universally applicable
No need to adjust the wheel sensor
Resistant to magnetic track brakes
Suitable for grooved rail

RSR180-IMC

Proven technology distinguishes the universal Wheel Sensor RSR180. It is not necessary to adjust the sensor. The Wheel Detection System RSR180-IMC is resistant to disturbances caused by magnetic rail brakes. It's also suitable for grooved rail applications.

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



Technical Data

RSR180



IMC



Interfaces		Optocoupler or relay
Safety level		SIL 3 or SIL 4
Temperature	-40 °F to +185°F (-40 °C to +85 °C)	-40 °F to +158 °F (-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: 1' (300 mm) to 7' (2,100 mm) Speed: 0 mph (static) to 280 mph (0 to 450 km/h)	Mechanical stress: 3M2 in accordance with EN 60721-3-3
Dimensions	Height: 2.4" (60 mm) Width: 9" (230 mm) Depth: 3" (77 mm)	Format: 19" housing for 4" (100 mm) x 7" (160 mm) boards Width: 4 width units Height: 3 height units

Optocoupler

Relay

Signal limits	Max. C-E voltage: 72 V DC Max. switching current: 17 mA Insulation voltage : 2,500 V	Max. voltage: 72 V DC Max. switching current: 500 mA DC Insulation voltage: 800 V
Power supply	Voltage: +19 V DC to +72 V DC Power: approx. 4.5 W per counting head Insulation voltage: 3,100 V	Voltage: +19 V DC to +32 V DC Power: approx. 4.5 W per counting head Insulation voltage: 3,100 V