



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 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



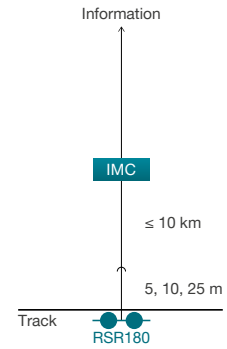
Benefits

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 track brakes and can also be used in grooved rails.

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



RSR180

IMC

Interfaces

Optocoupler or relay

Safety level

SIL 3 or 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)

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: 230 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: 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