Wheel Safety sensor

The WSS (or Wheel Safety Sensor) allows you to detect bogie wheel passage safely by detecting the metal mass in the wheel flange. It can be affixed against a square running track without perforation.

If the detector is distanced more than 7mm from the track (due to deficient clamping), it will be in a state that corresponds to wheel detection.

This device’s applications are:

- Train axle counting for train detection (SIL4 level)
- Train presence detection by track circuit replacement
- Train passage detection used with grade crossing control
- Crossing detection at a particular point (KPG function)
- All generally-ensured train signaling mechanical pedal functions (destruction pedals, signal unblocking pedals, axle counter, etc.)

Description

Used with a standard automat or a SIL4 safety automat with interlocking functions, WSS sensors help detect and protect train movement for signaling.
DRF – Wheel Safety Sensor

DRF - The WSS safely detects bogie wheel passage by detecting the metallic mass of the wheel flange.

The WSS sensor is made of 2 sensor units for direction detection. It is connected to a relay module located in a hotbox. There are two types of relay modules, depending on the outflow level when detecting a wheel: one is normally supplied (established work contact) and descends when a wheel is detected, the other is normally low (established resting contact) and rises when it detects a wheel.

**Technical Information**

- Detects all types of train wheel passage according to UIC 510-2
- Maximum speed detection 350 km/h
- WSS sensor service temperatures: from −40 to +80°C, humidity up to 100%
- Device service temperatures WSS: from -30 to +70°C
- WSS sensor has IP68 protection
- WSS sensor is mounted against the inner track rim
- Universal sensor support compatible with all track types UIC60, S45 (other profiles available)
- No track perforation
- Protection against traction return, over-tension, atmospheric discharges...
- Outflow relays comply with standard EN 50205
- Reliability is increased thanks to contactless detection. This type of pedal doesn’t wear out, contrary to Forfex-type mechanical pedals.