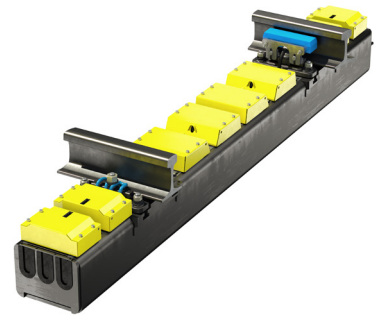# zentrak SLIDING WHEEL DETECTION

Diagnosis of blocked wheels

Description

zentrak Sliding Wheel Detection (SWD) is based on the high-performance infrared sensors of the zentrak Hot Wheel Detection (HWD) with modified target areas and enhanced by a special data analysis algorithm. It detects blocked or barely turning wheels which leads to ‚wheel slippage'. The heat generated by this friction can be detected by our HWD sensors and will trigger an alarm in the zentrak Central Management Software (CMS).

The dispatcher now can react quickly to the occurring problems to prevent fires on the train or beside the track, damage of the rails or other complications to keep life and infrastructure safe.

SWD
Sliding
Wheel
Detection

System advantages

» Modular system architecture in the zentrak ecosystem

» Reporting into the zentrak Alarming & Intervention (A&I)

» Self-calibration, self-diagnostic and health monitoring

» Local and remote system management.

» Low power consumption.

» No interference with regular track maintenance.

MULTI-BEAM TECHNOLOGY

Due to friction between a blocked wheel an the stationary rail, the point of contact heats up rapidly. But the brakes and also the discs stay mostly cold, since the temperature decreases towards the center of the wheel. Because of this a blocked wheel can only be detectet by meassuring the bottom of the wheel where the hottest part is located.

The sensors can be installed in an hollow steel sleeper or on frame brackets if the installation is located in a slab track.

It is possible to combine SWD with other rolling stock monitoring and detection functions in a multi-functional checkpoint and can be connected with our CMS.

Technical Specification	
Train Speed	0 to 450 km/h
Wheel Temperature	20 to 550°C
IP class of sensors	IP66
Enviroment	-40°C to +70°C
Absolut uncertainty	Up to 3K
Track gauge	1435mm (others available on request)

Options and variants

 Train Talker

 Arctic

 Tunnel

 Slab Track

 Solar

voestalpine Signaling
www.voestalpine.com/railway-systems

voestalpine
ONE STEP AHEAD.