



DiagSWing DJZV

Diagnostic of running railway vehicles

- **Contactless detection**
- **Hot wheel and flat wheel detection**
- **Monitoring of pantograph thrust by measuring the catenary stroke**
- **Sensing of railway vehicle identification plates by optical method**



GENERAL DESCRIPTION

Diagnostic of running railway vehicles DiagSWing DJZV (further DJZV) eliminates the occurrence of extraordinary events and accidents on the railway line and ensures the collection and evaluation of data on passing railway vehicles and their transmission to superior system.

DJZV consists of following subsystems:

- ASDEK – allows contactless detection of high temperature of bearings, wheel rims, disc brakes and bounces of train wheel from the rail
- STARLift – used to measure the catenary stroke when train runs with raised pantograph using a mechanical-optical converter (encoder)
- STARCam – used to scan running vehicles with high-speed camera (with active illumination) and evaluate the acquired images

BASIC TECHNICAL DESCRIPTION

ASDEK consists of three main parts:

- Trackside part – measuring sensors mounted on or near the rail
- Basic unit – receiving, processing and sending the acquired data (located in container near the sensors)
- Operator's workplace – Operator's PC for data display and emergency alerts

STARLift contains a mechanical-optical converter mounted on a structure for hanging the catenary. It is connected to catenary by stainless steel cable, which is wound on converter roller when catenary moves. Its stroke is converted into an optical signal and transmitted by fibre optic cable into evaluation unit located in container.

STARCam is located in separate switchboard cabinet outside the track gauge. After train has passed, the service program issues a list of vehicles and their identification numbers. Monitoring is automatically triggered by wireless radar unit and synchronized by axle counter located on the track.



STARMON

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BASIC TECHNICAL PARAMETERS

ASDEK (Hot wheel diagnostics)

Maximum number of measured axles	500
Train speed range	3 to 250 kmph
Troubleshooting	in both directions

ASDEK (Flat wheel diagnostics)

Maximum number of measured axles	500
Train speed range	40 to 250 kmph
Troubleshooting	in one direction

STARLift (measuring the stroke of catenary)

Length of steel cable	1 500 mm
Maximum optical fibre length	2 500 m

STARCcam (high-speed camera)

Maximum speed of measured train	200 kmph
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