



### APPLICATION

- Wheel roughness quantification.
- Wheel diameter.
- Out-of-roundness.
- Noise measurements and predictions.

### FEATURES

- Measures wheel surface perpendicular variation as function of distance along circumference.
- Complies with EN 15610:2009.

## SPECIFICATIONS

- Measurement transducers**
- Dynamic range:  $\pm 5000 \mu\text{m}$ .
  - Transducer type: displacement (LVDT).
  - Number of transducers: 3 (independently positioned over the rail head).
  - Measurement noise floor:  $0.1 \mu\text{m}$ .
  - Encoder for position determination 128 pulses per rotation.
- Data acquisition**
- Recording device: 4 channel simultaneous sampling – 16 bit A/D converter.
  - Resampling in post-processing at 1000 samples per meter.
  - Data storage: 1 Gigabyte memory.
  - 6 hours of measurements.
  - Download of data to laptop: USB-1.
- Data processing**
- Flexible software allowing data output in various forms.
  - Roughness spectra in:
    - 1/3 octave bands ;
    - narrow band ;
    - PSD.
  - Colour maps.
  - RMS level versus distance, ...