MEASUREMENT MODULE
“RADIAL/AXIAL RUN-OUT“
Data sheet
With the “Radial/Axial Run-Out” module, it is possible to precisely measure the ovality and eccentricity and to detect lateral runouts of rail vehicle wheels. With the CALIPRI sensor, the user captures the radial and the axial relative movements of the wheel profile during a wheel rotation. Diameter changes (diameter differences on one wheel) are determined through the automatic combination of the measurement data on opposite sides of the wheel. The measurement results can subsequently be exported as a CSV file and can be assigned to a certain wheel lathe.

In addition to the comparison of measurement values with relevant reference values, an additional spectrum presentation of the captured data allows for more in-depth analysis to check for any polygonisation of the wheel.

The “Radial/Axial Run-Out” module includes a v-shaped trigger wedge (IK1), which is to be attached to the inner side of the wheel – within the rolling circle diameter – and which enables the conformal allocation of the measurement data.

**MEASURED VARIABLES:**

![Graph showing measurement values for Axial Runout, Radial Runout, and Diameter Difference over a range of degrees]
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Compatibility</th>
<th>CALIPRI C41, CALIPRI C42</th>
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</table>
| Accuracy      | Absolut accuracy: < ± 30 μm  
|               | Repeatability: < ± 20 μm    |
| Requirements  | Rigid alignment of sensor relative to axle bearing (a.o. by sensor holder) & Uniform rotation of the wheel during the measurement |
| Dimensions    | Axial runout AR  
|               | Radial runout RR  
|               | Diameter difference DD |
| Product ID    | CMM1008 |

**SCOPE OF SUPPLY AND SERVICES**

- Software license measurement module “Radial/Axial Run-Out“  
  - 1 measurement method (RunOut)  
  - In case of supplementary order: activation via remote access
- Trigger wedge “IK1“  
  - Magnetic supporting gauge  
  - Enables a conformal allocation of measurements
- Sensor holder  
  - Tripod for CALIPRI sensor with ball head and magnetic holder

TRIGGER WEDGE „IK1“

CALIPRI SENSOR WITH THE HOLDER AND THE TRIGGER WEDGE
MEASUREMENT PROCESS

1. Mount sensor on tripod
2. Adjust with tutor
3. Fasten trigger wedge & start measurement
4. Turn the wheel evenly
5. Measurement result (sensor)
6. Measurement result (tablet PC)

Offers & Live Demonstrations:
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