

# Track measuring devices

Accuracy made in Germany



### Maß nehmen.





Vogel & Plötscher's product portfolio includes analogue and digital systems for measuring tracks and switches, rail condition and track geometry.

From the initial idea to the finished product: As a full-service provider with a high level of vertical integration, all components of the measurement technology solutions are realised in-house. Electronics, software and programming are also developed at Vogel & Plötscher. Flexible production structures enable customised solutions as needed.

The result: Highest precision, maximum reliability and efficiency.

# Track & switch inspection



#### RC<sub>A</sub>

# Track gauge and cant measuring device

**Approval:** DB, SNCF, SŽ **Application:** Analogue measuring device for switches and tracks to determine

- track gauge
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance

Additional equipment options available.





#### RCS

# Track gauge and cant measuring device

**Approval:** DB, SNCF, SŽ **Application:** Analogue measuring device for tracks to determine

- track gauge
- cant

Additional equipment options available.





#### RCFF

# Track gauge and cant measuring device

**Approval:** DB, SŽ

**Application:** Analogue measuring device for tracks equipped with spring-loaded mechanism and locking block to determine

- track gauge
- cant

Additional equipment options available.



## Track & switch inspection



#### RCAD

# Switch gauge and cant measuring device

Approval: DB, SŽ

**Application:** Digital measuring device for switches and tracks to determine

- track gauge
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance

Optional: Measuring data storage and data transfer via Bluetooth (version RCAD-BT5). Additional equipment options available.





### MessReg PTP II

Switch inspection system

Approval: DB

**Application:** Digital system with measurements being captured point by point incl. outdoor tablet and evaluation software for switches and tracks to measure

- track gauge
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance
- twis

Optional: Mobile trolley "WeichenCaddy II". Additional equipment options available.





### **MessReg CDM**

# Track and switch inspection system

Approval: DB

**Application:** Digital and mobile measuring system incl. outdoor notebook and evaluation software for automatic and continuous capture of

- track gauge
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance
- twist
- distance
- flangeway depth (optional)

Additional equipment options available.





#### **HMG**

#### Frog geometry measuring system

Approval: DB

**Application:** Digital measuring system incl. outdoor notebook and evaluation software to identify and evaluate

 running surface geometry of single (free-standing) frogs



#### **GG718**

# Template for stock rail and switch blade

**Approval:** DB **Application:** Analogue device to check the

• wear of the switch blade



### MessReg CTS II

#### Track measuring system

**Application:** Digital and mobile measuring system incl. outdoor tablet and evaluation software for automatic and continuous capture of

- track gauge
- cant
- twist
- distance

Optional: GPS connection







### Rail condition



#### SKM

Rail head wear measuring device

Approval: DB

**Application:** Analogue measuring device to check

- rail height
- wear of the running edge



#### PMI

Laser-based transverse profile measuring system

**Application:** Digital and portable measuring system incl. outdoor tablet and evaluation software to determine

- rail transverse profile
- metal removal

Measuring system and evaluation according to EN 13231-2:2020.



### **RSCM**

Rail surface inspection system

Approval: DB

**Application:** Digital, mobile inspection system incl. outdoor tablet for detection of rail near-surface defects down to 7 mm, such as

- pitting / metal loss
- rolling contact fatigue (RCF)
- head checks
- squats

Measuring system and evaluation according to EN 61000-6-4:2017 and DB Ril 821.2007V03-36.







### RM 1200 D

Longitudinal profile measuring system (portable)

**Approval:** DB

**Application:** Digital measuring system incl. outdoor tablet and evaluation software to capture

- rail longitudinal profile (corrugation)
- welding joints

Measuring system and evaluation according to EN 13231-2:2020 and DB Ril 824.8310:2017.





#### **RMF 1100**

Longitudinal profile measuring system (mobile)

Approval: DB

**Application:** Digital measuring system incl. outdoor notebook and software for automatic and continuous capture of

- rail longitudinal profile (corrugation)
- welding joints

Measuring system and evaluation according to EN 13231-2:2020 and DB Ril 824.8310:2017.





### **RM 150HR**

Measuring system for rail surface quality

Approval: DB

**Application:** Digital and portable measuring system incl. outdoor tablet and evaluation software to determine the

rail surface quality index [QI]

Measuring system and evaluation according to EN 13231-2:2020.



# Track geometry



#### **VIG 1300**

Sighting and levelling device

Approval: DB, SNCF
Application: Measuring device with Leica optics

- sighting to determine along-track height
- levelling to determine track height



#### WP

Measuring bars for versines "Wuppertaler method"

Approval: DB
Application: Analogue device to measure the
• versines



#### PFIA 1

General-purpose versine measuring device

**Application:** Analogue measuring device to enable the

 versine measurement inside and outside of a curved track









### SOUARE

Track square

**Application:** Analogue and separable measuring device to support and check the

alignment of sleepers



### **POINT**

Fixed point measuring device

**Application:** Analogue measuring device to

- measure the distances between fixed points (i.e. signal post, concrete walls, etc.) to the track
- check individual level values using an appropriate measuring gauge



#### SA 75

Track clearance measuring device

**Application:** Analogue measuring device to measure the

- distance from two tracks towards each other
- distance and the height difference from one track to a fixed point







### Track geometry



#### PI AT

#### Platform distance gauge

**Application:** Analogue device to measure the

- distances from center of track or inner rail edge to the platform
- height difference from top of rail to the platform edge or to the top of ramps





#### MUL

# Measuring device for lower structure clearance

**Application:** Analogue device to measure

- the lower structure clearance at bridges and platforms
- frost damages at level crossings





### **THIRD**

#### Third rail gauge

**Application:** Analogue device manufactured from non-conductive fiberglass to measure the third rail with the following track parameters

- track gauge
- clearance from third rail to the track
- height difference from the third rail to the track

# Integrated measuring technology



### **ROMILL**

# Complete solution for rail maintenance

**Application:** Rail treatment system combining the latest milling, grinding, and measuring technology. Measurements include

- rail transverse profile
- rail longitudinal profile (corrugation)
- rail defects





### **ROSPECT**

### Modular inspection platform

**Application:** Inspection vehicle for automatic

- detection of rail defects via eddy current and ultrasonic
- measurement of
- rail longitudinal profile (corrugation)
- track geometry via MessReg IMU (Inertial Measurement Unit)
- rail transverse profile
- ground penetration radar







Vogel & Plötscher GmbH & Co. KG Geldermannstr. 4, D-79206 Breisach

For more information: vogelundploetscher.de/en

Tel: +49 (0)7667 946100, info@voploe.de/en









