



RAILSTRAIGHT

**ELECTRONIC MEASURING DEVICES
FOR THE INSPECTION OF
LONGITUDINAL PROFILES**



SAFETY AND RIDE COMFORT THANKS TO RELIABLE CHECKS

The geometrically perfect production of welded rail joints and the correct alignment and surface finish of the rails are essential parameters for the durability of railway infrastructure.

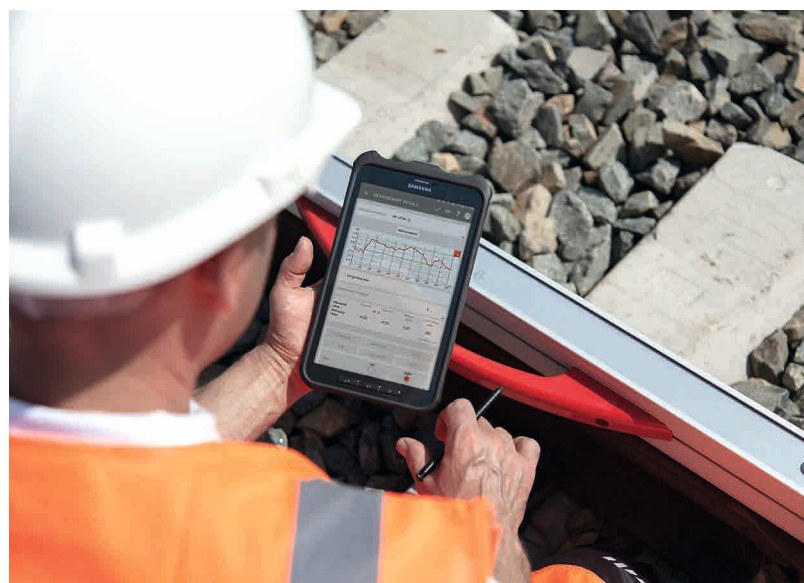
It is therefore necessary to document these factors – namely using measuring technology that is both objective and reliable. Then you will be in an excellent position with respect to the construction of new high speed rail tracks, heavier track loads and demands for better ride comfort. The benefits of our Railstraight measuring devices are clear:

- Extremely accurate in measuring straightness and surface quality of longitudinal rail profiles
- Railstraight Wave also offers the analysis of corrugation
- Measuring using the Railstraight app on a device for Android™
- Involvement into the Dari® software or database solutions enables further analysis and visualizations
- There is an option to monitor the calibration via the Railstraight app
- Automatic referencing of the measurement system for temperature compensation every 30 seconds
- Powerful, internal lithium-ion battery which can be recharged via micro-USB
- Alternative power supply via eight AA batteries for longer operating periods
- Robust design (IP protective class 54) for flexible operation on the track
- Railstraight Wave is approved for the Deutsche Bahn network

THE MEASURING DEVICE SUITABLE FOR EVERY REQUIREMENT

By taking geometric measurements with Railstraight measuring devices, you can document that the execution of the rail connection and the rail condition meet quality requirements. As practice has shown that requirements sometimes vary greatly, Railstraight is available in different versions.

RAILSTRAIGHT COMPACT	RAILSTRAIGHT DUAL	RAILSTRAIGHT WAVE
Fulfils requirements in accordance with: • DB directive 824.8210 • EN 14730-2 • RLN00127-2 (Quality Index QI) • NAV 3-3-2.1 • AS1085.20	Fulfils requirements in accordance with: • DB directive 824.8210 • EN 14730-2 • RLN00127-2 (Quality Index QI) • NAV 3-3-2.1 • AS1085.20	Fulfils requirements in accordance with: • DB directive 824.8210 • EN 14730-2 • RLN00127-2 (Quality Index QI) • NAV 3-3-2.1 • AS1085.20 • DB directive 824.8310 • EN 13231-3
• Measurement of straightness of gauge face and running surface of joints and welding connections • Suitable for measuring the running surface of grooved rails, even in turnout areas	• Simultaneous measurement of straightness of gauge face and running surface of joints and welding connections • Suitable for measuring the running surface and running edge of grooved rails, even in turnout areas, at the height of check rails	• Straightness measurement of gauge face and running surface and for corrugation measurement of longitudinal rail profiles • Determination of corrugation wave lengths in four different ranges is possible: 10-30 mm, 30-100 mm, 100-300 mm, 300-1 000 mm



The devices are also suitable for measurements and documentation with imperial measurement units together with the Railstraight app.

PROCEDURE FOR PRECISE DIGITAL MEASUREMENTS

The Railstraight app enables you to quickly and easily prepare reports confirming perfect track position and with it acceptance quality directly on site. A involvement into the Dari® software or database solutions from Goldschmidt, enables you to benefit from many additional features and advantages.

DARI®



FEATURES AND BENEFITS

Data acquisition via Railstraight app and, if desired, connection to other Dari® software or database solutions

Intuitive user interface for every process step

Display of reports on longitudinal profiles of running surface and running edge with the support of user-defined specifications

Measurement of rail temperature and transmission via the rail thermometer (optional)

Quick preparation of reports and data export via CSV or PDF for sending from the Railstraight app

Available for smartphones and tablets operating on Android

Worldwide availability and evaluation of the measurement data via cloud solutions of the Dari® software or databases

GPS positioning for localising measured values

References for welds and measurements in Dari® software or database applications

Direct exchange of data for remote maintenance via the application using the log file and mailing

Programming of country- or region-specific speed profiles in accordance with applicable regulations

VISIONARY IDEAS NEED POWERFUL SOLUTIONS:
DARI® BY GOLDSCHMIDT.

With the diverse elements of our global digitalisation initiative Dari® – Data acquisition for rail infrastructure – railway infrastructure operators can manage their tracks in a **smarter, more effective and sustainable** way. Based on a thorough understanding of track construction and maintenance processes, Goldschmidt's **digital tools, measurement systems, software solutions, cloud databases, services and interfaces** are designed to provide optimal support for the relevant technical applications.

Experience new dimensions in track operations. **With Dari® by Goldschmidt.**

TECHNICAL DATA

SPECIFICATIONS	RAILSTRAIGHT COMPACT	RAILSTRAIGHT DUAL	RAILSTRAIGHT WAVE
Measuring length	1 m	1 m	1 m
Horizontal resolution	500 points	500 points	500 points
Linearity error	±0.5 %	±0.5 %	±0.5 %
Measuring range	+1.5 ... -2.5 mm	+1 ... -2 mm	+1 ... -2 mm
Vertical resolution	0.001 mm	0.001 mm	0.001 mm
Display resolution	0.01 mm	0.01 mm	0.01 mm
Measuring time	6 sec	6 sec	6 sec
Weight	5 kg	8 kg	5 kg
Dimensions	1 230 x 165 x 110 mm	1 330 x 192 x 95 mm	1 230 x 165 x 110 mm
Operating time of rechargeable batteries (internal/external)	min. 400/300 measurements	min. 400/300 measurements	min. 400/300 measurements
Ambient temperature	-10 ... +50 °C	-10 ... +50 °C	-10 ... +50 °C
Rail temperature	-20 ... +60 °C	-20 ... +60 °C	-20 ... +60 °C

CONTENTS

- Railstraight device with integrated lithium-ion battery and 2 silicon caps (Compact/Wave)
- Green reference measuring bar
- Neoprene carrying bag
- Micro USB charger 110/220 V
- AA batteries
- Car charger 12 V
- Railstraight app (Android)
- Connection to a cloud-based Dari® database solution for data analysis
- Operating instructions

OPTIONAL ACCESSORIES

- Rail thermometer with Bluetooth interface
- Transport box aluminium
- Smartphone or tablet operating on Android for device control
- Other Dari® features available





SMART RAIL SOLUTIONS

Together with you, Goldschmidt masters the challenges of modern, railbound mobility – for safe, sustainable and long-lasting railways of premium quality. As with Thermit®, Goldschmidt is also a pioneer in maintenance, inspection and digitalization and continues to improve processes and extend the lifecycle of railway infrastructure. Goldschmidt benefits from its global expertise and cross-disciplinary thinking to create tailor-made local solutions for you. The global presence of Goldschmidt gives you access to its whole portfolio – with one goal: to lead your railway infrastructure into the future.