

TRACKMASTER CFG

Digital track gauge for gauge, cant and spatial track position



TrackMaster CFG is a lightweight digital track gauge that records track gauge, cant (superelevation) and the spatial position of the track in a single work step – together with a total station or a GNSS receiver.

1.95 kg

carbon fibre, foldable

±0.2 mm

gauge repeatability

±0.4 mm

cant repeatability

300 m

long-range Bluetooth

APPLICATIONS

- **As-built surveys** of existing railway infrastructure
- **Track assembly and inspection** on fixed trackwork
- **Measuring data for tamping machines**
- **Measurement during traffic** possible thanks to the light design and easy handling; use during traffic must comply with applicable regulations
- **Gauge and cant checks** with a printable report

KEY FEATURES

- **Lightweight carbon fibre construction**, foldable for transport (fixed version available)
- For **all track gauges from 500 to 1800 mm**
- **Long-range Bluetooth** up to 300 m to the total station, auto-connect after switch-on
- **User-adjustable prism position**, prism constants set in the web application
- Adjustable height of the gauge measuring point
- **Replaceable battery** Leica GEB 212, about 8 hours of operation
- Option to mount the controller (tablet) or a smartphone on the gauge – e.g. for stand-alone measurement in the built-in web application
- Compatible with **Leica Captivate** and **GEOKOD RailSURV**; Android app for recording and display

SPECIFICATIONS

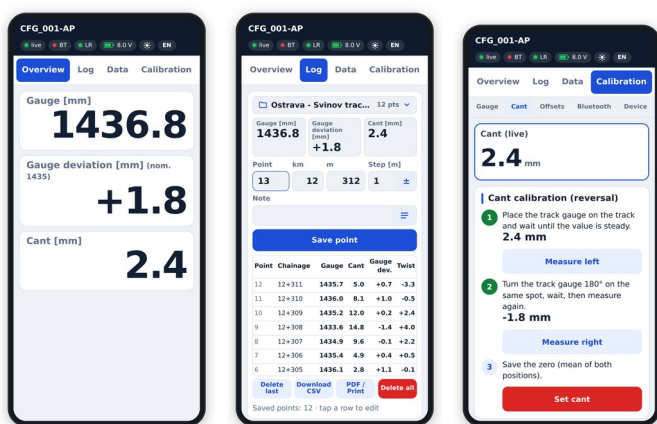
Gauge measuring range	-25 / +50 mm from nominal gauge
Gauge repeatability	±0.2 mm
Cant measuring range	±10° (260 mm / 1500 mm)
Cant repeatability	±0.4 mm
Nominal track gauges	500 – 1800 mm
Dimensions	1600 × 272 × 252 mm
Weight	1.95 kg
Battery	Leica GEB 212, replaceable
Battery life	approx. 8 hours
Operating temperature	-10 °C to +50 °C
Communication	Long-range Bluetooth (up to 300 m), Bluetooth, Wi-Fi hotspot
Software	Leica Captivate, GEOKOD RailsURV, Android app, built-in web application
Data export	CSV, PDF measurement report
Firmware	CFG 1.4/2026, update over Wi-Fi
Made in	Czech Republic (EU)

WEB APPLICATION

- Built into the gauge – opens in any browser at **192.168.4.1**, no internet needed
- **On-site calibration** of gauge (reference value) and cant (reversal method)
- Selectable inclinometer filter: fast, standard, smooth, tamping machine
- **Measurement log** with point names, chainage (km + m), step and saved notes; files per line or section
- **Twist** calculated from the recorded points (base and tolerance adjustable)
- Export to **CSV** and printable **PDF measurement report** with tolerances and signatures

Stand-alone recording – no app needed

With just a phone or tablet and its web browser, the CFG records gauge, cant, twist and chainage of each point, keeps the measurement files in the phone and produces the CSV export and the PDF measurement report on site. No total station, no controller software and no app installation are required.



Built-in web application: Overview · Log · Cant calibration

Track gauge and cant measurement report							
Company GEOKOD Rail s.r.o.		Device CFG_001	Measured 2026-09-29 09:12-09:19		Measured by J. Novak		
Nominal gauge 1435 mm		Gauge deviation tolerance ±3.0 mm	Twist - base / tolerance 3.0 m / ±7.0 mm/m		Line / section Ostrava - Svinov track 2		
Points 12	Points with gauge deviation out of tolerance 1 of 12		Gauge deviation min / max -1.4 / +3.6 mm		Twist max +4.0 mm/m		Points with twist out of tolerance 0 of 9
Point	Chainage	Gauge [mm]	Cant [mm]	Gauge deviation [mm]	Twist [mm/m]	Time	Note
1	12+300	1436.2	2.1	+1.2		09:12	
2	12+301	1435.8	2.6	+0.8		09:12	
3	12+302	1436.9	3.0	+1.9		09:13	
4	12+303	1437.4	3.3	+2.4	+0.4	09:14	weld
5	12+304	1438.6	3.1	+3.6	+0.2	09:14	
6	12+305	1436.1	2.8	+1.1	-0.1	09:15	
7	12+306	1435.4	4.9	+0.4	+0.5	09:16	
8	12+307	1434.9	9.6	-0.1	+2.2	09:16	switch 12
9	12+308	1433.6	14.8	-1.4	+4.0	09:17	
10	12+309	1435.2	12.0	+0.2	+2.4	09:18	
11	12+310	1436.0	8.1	+1.0	-0.5	09:18	level crossing
12	12+311	1435.7	5.0	+0.7	-3.3	09:19	
Gauge deviation = measured - nominal gauge. Values out of tolerance are marked red. Twist = (cant - cant 3.0 m back) / base (mm/m); the cant at the base point is interpolated linearly between neighbouring points. Printed: 2026-09-30 10:48; Firmware: CFG 1.4/2026							
Measured by (name, signature): J. Novak				Accepted by (name, signature)			

PDF measurement report printed from the phone