



THE ONLY SYSTEM WHEN SAFETY MATTERS

Track geometry inspection in the fastest possible way

- EN-13848 compliance on relative track geometry accuracy
- Unrivalled survey performance up to 4000 m/h
- No geodetic skills for operators are required
- Cost efficiency

Modular system design

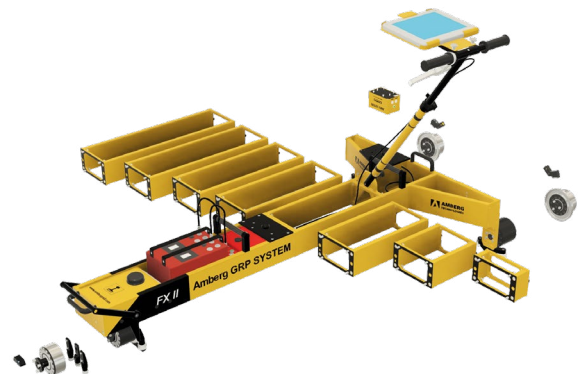
- Measuring trolley consisting of precision sensors for gauge, superelevation and distance
- AMU 2010 (Amberg Measuring Unit) for unrivalled kinematic measurement precision
- Wireless communication between the board computer and the ruggedized tablet
- Modular system upgrading possibilities
- Easy handling, simple transportation
- LED-lighting for secure work at night
- Robust hardware design for hard environment

Amberg TRACK PRO FIELD software

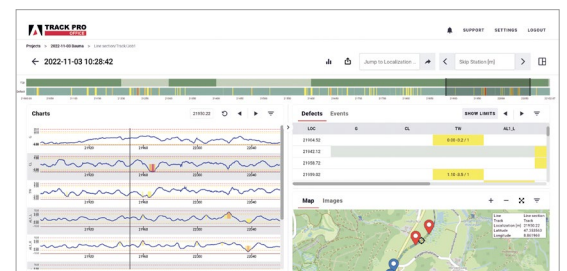
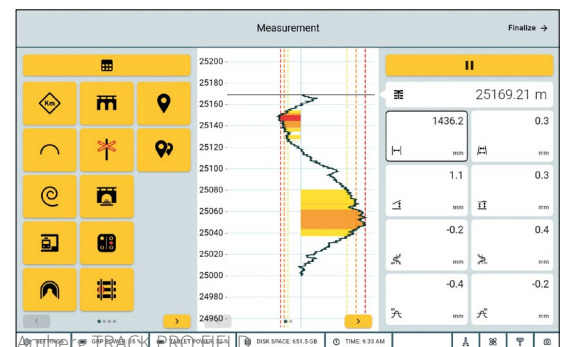
- Friendly, modern, intuitive
- Real-time defect calculations
- Event registration
- Two colour themes
- Metric, Imperial International, Imperial US units
- No or little training required

Amberg TRACK PRO OFFICE software

- Robust, modern, powerful
- Striking visualization, analysis, and reporting
- Track Quality Index (TQI)
- Track merging
- Track monitoring
- Metric, Imperial International, Imperial US units
- Fast onboarding



Amberg GRP System FX II - IMS Relative



Amberg TRACK PRO OFFICE

SYSTEM PERFORMANCE AND TECHNICAL DATA

System configuration	
Gauge [mm]	1000, 1067, 1220, 1372, 1435, 1495, 1520/1524, 1600, 1668/1676
Gauge measuring range [mm] (re nominal gauges)	-20 to +55
Weight total system [kg] (re 1000 mm gauge, single battery)	23.7

System performance ⁽¹⁾	
Typical measuring speed [km/h]	3.5
Max. measuring speed [km/h]	4.0

System accuracy ^{(1), (2)}	
Repeatability (re AMU 2010)	
Gauge [mm]	0.2
Cant [mm]	0.5
Twist [mm]	0.2
Horizontal alignment D1 [mm]	0.5
Vertical alignment D1 [mm]	0.5
Horizontal alignment D2 [mm]	1.0
Vertical alignment D2 [mm]	1.0
Reproducibility (re AMU 2010)	
Gauge [mm]	0.7
Cant [mm]	1.0
Twist [mm]	0.4
Horizontal alignment D1 [mm]	0.8
Vertical alignment D1 [mm]	0.8
Horizontal alignment D2 [mm]	1.5
Vertical alignment D2 [mm]	1.5

Power management ⁽¹⁾	
Trolley battery operating time [h]	9
Tablet battery operating time [h]	9

Environmental specifications	
Working temperature range [°C]	-10 to 50
Humidity (non-condensing)	< 80 %

System approvals	
CE Conformity	EN 50121-3-2:2016+A1:2019 EN/IEC 61000-6-4:2018 EN/IEC 61000-4-2:2008 EN/IEC 61000-4-3:2008 IEC 62236-3-2:2018 FCC 47 CRF Part 15 EN 61326-1:2021 EN 13848-4 EN 13977:2011 Directives 2014/30/EU Directives 2014/35/EU Directives 2011/65/EU

Extract of references ⁽³⁾	
Amberg's railway surveying solutions have proven their high performance worldwide. Demanding projects have been successfully realized in e.g., Germany, Austria, Belgium, the Netherlands, Denmark, France, Italy, Spain, Greece, Turkey, Australia, United Kingdom, Saudi Arabia, UAE, Korea, USA and PR China.	
<p>1) Typical experience values. They depend on project conditions.</p> <p>2) The accuracy refers to the 95th percentile of repeatability and reproducibility test runs, as the EN-13848 norm specifies. The accuracy also depends on the chord and base length of the measured track parameters.</p> <p>3) The references concern the GRP System FX based on which the current system has been manufactured.</p>	