

Geotechnical track monitoring

Tunnel Rastatt, Germany (2016 – today)



Amberg TrackControl at Deutsche Bahn

Object

The new railway tunnel in Rastatt underpass the existing high-speed railway in a shallow angle over a length of about 500 m. To ensure the safety of ongoing operations, the DB required, in addition to the geodetic monitoring, a second redundant system with high reliability and no dependency on weather condition.

Project Description

The system Amberg TrackControl was installed in different periods from 2016-2018 and adapted to the needs of Deutsche Bahn. Since mid-2021, 1320 TrackControl sensors have been in operation and provide reliable results every minute for superelevation, twist, vertical versine and vertical settlement.

Instruments

Superelevation	Amberg TrackControl, 330 Sensors, interval 3.00 m
Longitudinal slope	Amberg TrackControl, 990 Sensors, interval 1.00 m
Mast tilt	Amberg SlopeControl, 12 Sensors, biaxial
Concrete foundation	Amberg SlopeControl, 38 Sensors, uniaxial
Central unit and Communication	Amberg GeoMonitoring-System

Evaluation

- Temperature adjustment directly in the sensors
- Database and processing in Amberg GEOvis
- Automatic data transfer to the data portal of the client

Customer value

- Ensuring operational safety
- No dependency on weather conditions - no influence on the results due to snow, fog and rain
- One minute measuring interval – 24 hours
- Statement of Deutsche Bahn:
The monitoring and alarm system works reliably

Client Deutsche Bahn AG

Partner company ISK / TABERG, Sachverständigenbüro, Freiburg

Contact
Amberg Technologies AG
Trockenloostrasse 21
CH-8105 Regensdorf
Telefon +41 44 870 92 22
geoengineering@amberg.ch
www.amberg.ch/at



Tracks in the section of Tunnel Rastatt

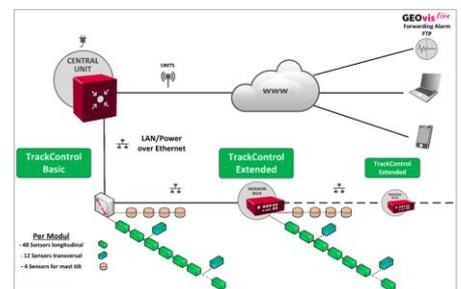


Diagram of Amberg TrackControl