

## Amberg TrackControl For seamless monitoring of your railway tracks

### A new level of safety

- Data acquisition takes place reliably once every minute
- The system works independently of weather-related restrictions such as rain, snow or fog.
- Even standing or passing trains cause no problems for the geotechnical sensors.
- Highest safety for railway operation due to high measurement accuracy, reliability and application of advanced analy methods.
- Low personnel and maintenance costs thanks to simple and compact design.
- With the GEOvis 4.0 platform, real-time measurement data can be retrieved, visualized and analyzed at any time and from anywhere.
- The integrated alarm function informs you in real time by email or SMS.

#### A modular system tailored to your project

- The basic module measures deformations with 48 longitudinal, 12 transverse and optionally four mast sensors on a track length of 56 meters.
- Extension of the base module by connecting up to five additional modules to a total length of up to 340 meters
- Increased efficiency thanks to innovative magnetic sensor mounting solution.
- Quick and easy installation, module extension and deinstallation without obstructing railway operations.
- Measurement of absolute and/or relative track deformations using georeferencing of sensors.



Maximum safety for railway operations around the clock



Layout Amberg TrackControl

#### The essential information in real time

- TrackControl reliably measures track distortions, cant, vertical arrow heights and settlement.
- The system is suitable for the following areas of application:
  For construction sites close to railway tracks.
- For underpassing construction measures (pipe jacking, tunnels, underpasses, etc.).
- When using auxiliary bridges.

#### An internationally proven system

- Amberg TrackControl is successfully used in projects in Switzerland and other European countries.
- With our international partner network, we guarantee a reliable customer support.





Picture above: Twist [‰] Picture below: Vertical versine [mm]

# Amberg TrackControl

Technical data & visual examples

Sensors		
Longitudinal sensors (uniaxial)	48	288
Transverse sensors (uniaxial)	12	72
Mast sensors (optional, bia- xial)	4	24
Temperature limitations	-50° C to +80° C	
Distance between longitudinal	0.75 or 1.2 meters	
sensors		
Distance between transverse	3.0 or 4.8 meters	
sensors		
Data acquisition		
Superelevations	+/- 1.0 mm	
Twist	+/- 0.2 ‰	
Vertical versine	+/- 1.0 mm	
Vertical settlement	+/- 3.5 mm	
Measurement frequency	Ix per minute (or less)	
Data visualization		
- Overview maps		

- Track deformation curves (twist, vertical versine, settlement

Amberg TrackControl is a proven track monitoring system, which is successfully used in projects of national and private

railway companies in Switzerland, Germany and France. The

reliable alarming during past failures proves the high functio-

nality of the system. With TrackControl, you always have your

track movements under control and increase the safety of



 $\ensuremath{\mathsf{Example}}$  visualization of twist and vertical versine incl. alarm limits



Example of a settlement diagram



Application example: Real-time monitoring during press pipe driving below operating tracks.



Efficient installation with the latest generation of sensors! Amberg TrackControl with flexible plug connections and innovative magnet fastening.

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- Sensor status profiles

- Temperature-time curves

your railway infrastructure.

deformations)

References

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