SWISS PRECISION

DIMETIX
LASER DISTANCE SENSORS

DIMETIX APPLICATION EXAMPLE

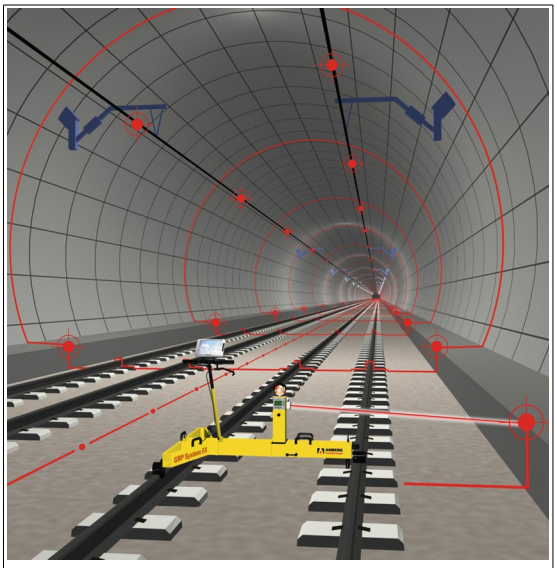
AE-0203

SURVEY OF RAILWAY INFRASTRUCTURE

Industry: Railway

Application type: Position measurement

Brief description



Pic 1: Clearance measurement

Accurate distance measurement is essential in railway construction – for new development as well for maintenance. Speed trains of the latest generation move at maximum speeds of over 300km/h. In order to preserve the rolling stock at such strains, millimeter precise measuring is inevitable. In addition, a smooth vehicle run highly contributes to the travel convenience of the passengers.

Clearance measuring is a further important subject in construction and maintenance of railway infrastructure. For safety reasons the exact knowledge of the room available, is an absolute must. Furthermore, the information of the utilizable room is most important for manufacturers of rolling stock.

A company called Amberg, who is situated in Regensdorf close to Zurich, uses Dimetix DLS-C15 sensors in their measuring system called GRP3000. The Dimetix Laser Distance Sensors integrated in this device, not only do clearance control measurements but also overhead wire measurements. The sensors are fixed on a mounting bracket. Their laser beam is aligned manually to the respective object. The sensors measure contactless on any type of natural target in a distance range of up to 65m. If required, their temperature range may be extended by an optional heating device from -10°C - +40°C to -40°C - +50°C.

Pic 2: Amberg system GRP 3000

Customers advantages

- Simple alignment due to visible laser beam
- Use in rough environment thanks to robust aluminum enclosure
- Maintenance free operation

Dimetix AG • Degersheimerstr. 14 • 9100 Herisau • Switzerland • Phone +41 71 353 00 00 • Fax +41 71 353 00 01 • info@dimetix.com • www.dimetix.com

Products used

DLS-C series

The DLS-C distance measuring device measures absolute distances up to 500 meters on reflective foil without contact. Due to most innovative laser technology the DLS-C has a unique accuracy of ±1.5 mm. A further advantage of the DLS-C is the quick determination of the positions of moving objects.
The DLS-C is an optical distance measuring device. It measures, maintenance-free, distances up to 65m on natural surfaces. It determines positions of objects that are difficult to access or may have very high surface temperatures. Just as easily, it accurately measures distances in hazardous environments.

The DLS-C is designed to be suitable for both, heavy industrial and outdoor applications. It is constructed of a solid metal case and provides class IP65 environmental protection. **It represents a cost efficient solution even at extreme environment temperatures as high as +50° C**. Furthermore, various features make it flexible for multiple applications in numerous industries such as automotive, paper, metal and textile.

Specification

- Measuring range 0.05 up to 500m
- Accuracy ±1.5 mm
- Repeatability ±0.4 – ±1.5 mm
- Extended operating temperature
- Solid metal case IP65
- Supply voltage

For new projects we recommend our **D-Series**. Further information can be found here.

For more information please contact us on application@dimetix.com