

MONITORING OF HISTORICAL TOWER

Industry: Geodesy / Construction
Application type: Monitoring

Brief description



Pic 1: Dimetix Sensor installed at the historic building "Blauer Turm" in Germany.

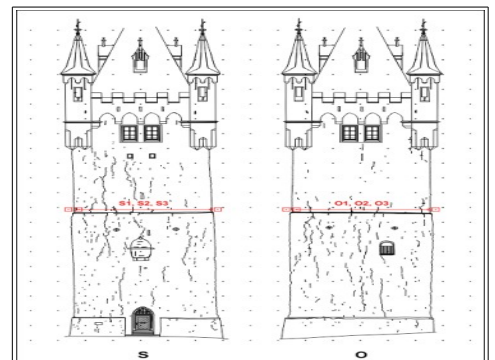
Geodetic permanent monitoring of historic buildings are to support redevelopment concepts. Historical buildings, including church buildings, are part of the cultural and social property, whose conservation is not only in the interests of the owners, but also in the public interest through the ordinance on the protection of monuments.

In particular, when structural damage occurs, which necessitates a static consolidation, the potential damage caused by the often existing precious and delicate works of art, such as frescoes, ceiling ornaments, etc., is considerable. Therefore the protective and security measures to be taken are usually costly. An engineering company has developed a monitoring concept with Dimetix Laser Distance Sensors, which monitors the movements of the historical building and elaborately investigates them. As you

can see in picture 2, four FLS-C10 sensors were needed to monitor the external walls of the tower. Three additional FLS-C10 lasers measure the distance wall to the stairwell. With this system the every movement of the building is on record.

Customers advantages

- Easy alignment thanks to the visible laser beam
- Rugged aluminum housing suitable for harsh industry environment
- Maintenance free
- Accuracy ± 1 mm



Pic 2: 4 Dimetix FLS-C laser sensors monitor the exterior walls of the tower.



Products used

FLS-C series

The FLS-C distance measuring device measures absolute distances up to 500 meters on reflective foil without contact. Due to most innovative laser technology the FLS-C has a unique accuracy of ± 1.0 mm. A further advantage of the FLS-C is the quick determination of the positions of moving objects.

The FLS-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 FLS-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 low as -40° 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 ± 1.0 mm
- Repeatability ± 0.3 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

