

**MEASURING FLOOD GATE HEIGHT**

**Industry:** Geodesy / Construction  
**Application type:** Position measurement / Monitoring

**Brief description**



*Pic 1: Flood gate height*

The ability to reliably and accurately monitor flood gate height at often remote and difficult to access locations remains an ongoing challenge for hydropower and reservoir flood gate operators. Dimetix laser distance sensors can be used to remotely monitor sluice and flood gate position, minimizing the need for visual verification in remote locations. Dimetix lasers offer several methods of communicating to control systems commonly used in dam and hydropower applications.

In this implementation 20 Dimetix laser sensors measure the distance to the top of the flood gates. Flood gate heights are tied directly into the reservoir’s monitoring system to display position while raising or lowering the gates. As shown in the Pic.1 and inset, a Dimetix laser housed in a custom stainless steel enclosure

measures through a hole bored into the top of the dam to the steel surface of the flood gate 50 feet below. In instances where direct measurement of the type shown here is not possible, indirect measurement of a mechanical part (for example, a positioning arm or gate screw) that moves in unison with the gate can often be used as a reference for gate position.

**Customers advantages**

- Measuring range 0.05 up to 500
- Accuracy 1 mm
- Repeatability 0.3 mm
- Extended operating temperature
- Solid metal case IP65
- Supply voltage 9 – 30 VDC



## 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  $\pm 1.0$  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  $-40^{\circ}$  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  $\pm 1.0$  mm
- Repeatability  $\pm 0.3$  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](mailto:application@dimetix.com)

