

## Load Pins

Monitor Gates on Illinois River Locks

## LORD SENSING

Stellar Technology 237 Commerce Drive Amherst, NY 14228 • USA Tel: 716.250.1900 Fax: 716.250.1909 Web: stellartech.com Email: info@stellartech.com

> Copyright © 2015 LORD Corporation All Rights Reserved

ISO 9001/AS9100



A lock system on a river is a valuable asset to the surrounding area, both as an economic resource and for commercial and recreational transportation. Locks operate year-round in all kinds of weather, so accurate, real-time monitoring of the system is a priority.

accurate, real-time monitoring of the system is a priority.

When the Army Corps of Engineers needed a more reliable way to monitor and control the gates on a lock system in the Illinois River, they found that the Stellar Technology Model LDP990 provided the perfect solution. Reliable control of the massive gates against the onrush of water called for a robust load cell that could be integrated into the existing structure. The mechanism uses large cables to control the opening and closing of the gates and fluctuation in the tension forces seen by those cables could indicate a blockage or mechanical failure, confirm the correct and complete closure of the gates, or signal the need for routine preventive maintenance.

The solution was to replace the 14 clevis pins on the cable sockets with 75,000lb LDP990 Load Pins with 4-20mA output. STI engineers designed an anti-rotational mounting bracket to fix the location and orientation of the pins to insure optimum axis alignment to provide accurate and precise measurements of the load on the cables. The Stellar load pins provided a drop-in replacement for the existing clevis pins, which kept the fixturing costs to a minimum.

## Your Application-Solution Source<sup>sm</sup>