

Case story



Structural Health Monitoring of bridges in Virginia

Once again, DS-Series sensors from ElastiSense, have proven valuable in terms of bridge monitoring, this time in Virginia. Specifically monitoring of bearings, offering valuable information about the movement of the bridge. This helps predict maintenance and it helps the Virginia Department of Transportation (VDOT) estimate how many years of wear there is left on the bridge. *"The installation was a snap"* was the first feedback from the customer, indicating that the ElastiSense solution has been a lot easier to install than previous solutions, if any.

VDOT has purchased twelve DS-20 sensors to monitor the Rte. 638 Integral Bridge. The sensors are installed on four bearings of this bridge to monitor the displacement and rotation under loading conditions and temperature variations. This information is essential for understanding the characteristics of a bridge, predicting maintenance, and estimating the remaining life of the bridge. The sensors were connected to wireless data loggers from Campbell Scientific and the data was wirelessly transferred to a cloud system which is then accessed by structural experts at VDOT.

Being waterproof (IP68) and tolerant to misalignments, ElastiSense DS-Series sensors are inherently suitable for the instrumentation and monitoring of structures such as bridges, tunnels, buildings, dams, rock cliffs, railways, etc.

DS-Series Displacement Sensors from ElastiSense



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