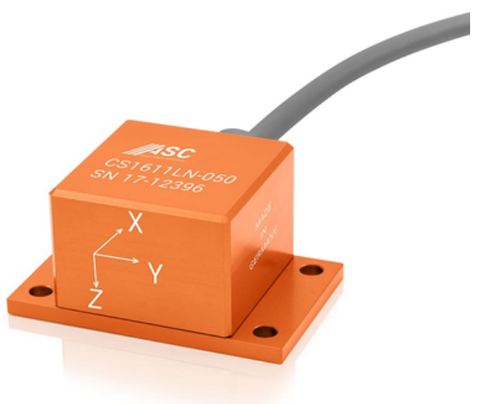
STRAINSENSE
MAKING SENSE WITH SENSORS

Displacement Measurement of Bridge Pylons using DC Accelerometers

Bridge Pylons serve an important role in the structural integrity of cable-stayed or suspension bridges and bridge structures. Increasingly these pylons need to be monitored for excessive movement especially in critical, exposed and coastal locations.

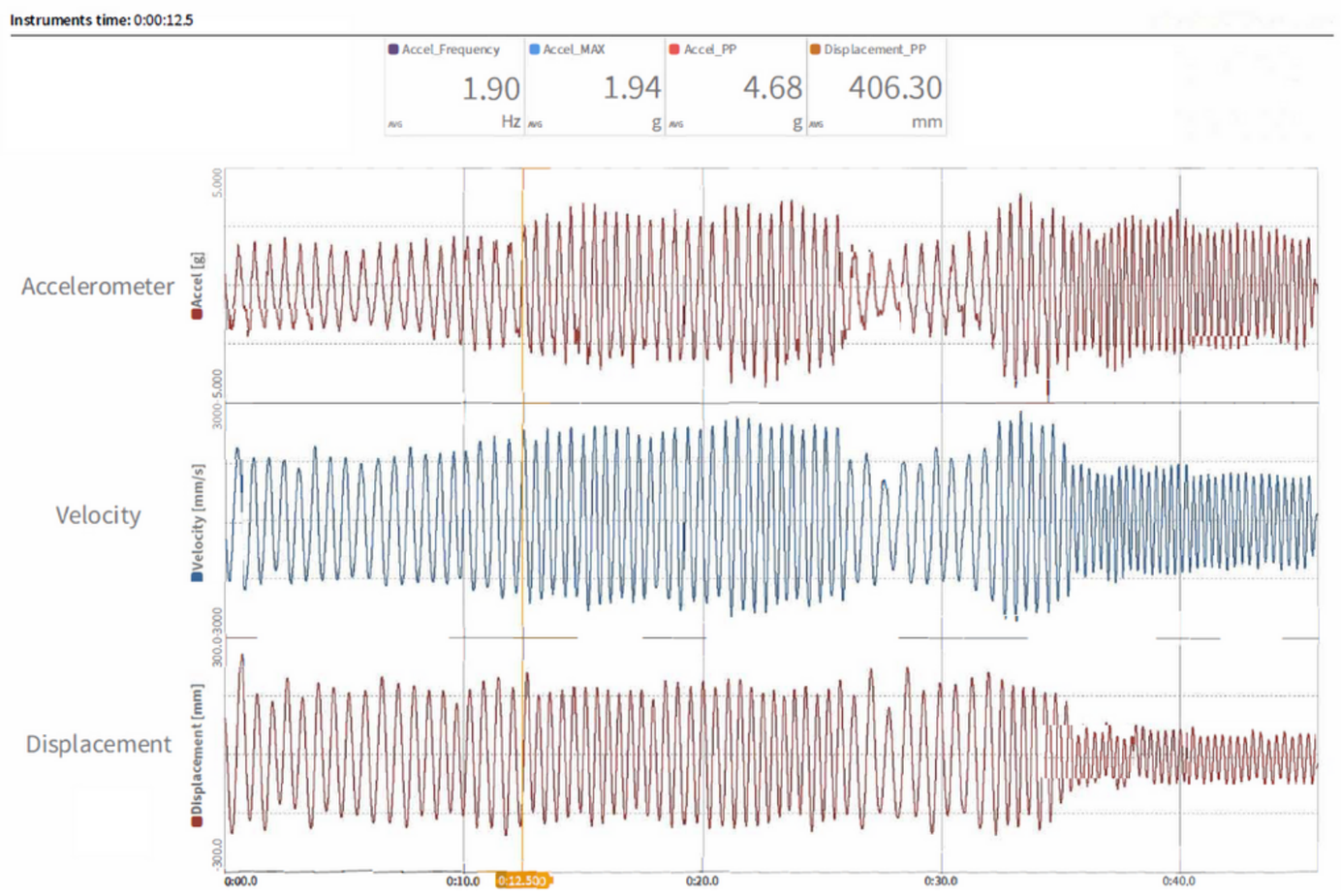
Primary considerations in providing the right sensor include ultra-low noise signal, long cable runs, high EMC/RFI immunity and a high Ingress protection rating. By double integrating a DC accelerometer output, the displacement is resolved to a very high accuracy with a high frequency response, picking up the fastest movement of the pylon.

Our DC Accelerometer models ECO CS-x311 and CS-1711LN deliver on this performance requirement having 4-20mA output for long cable runs, internal shielding and case isolation for unrivalled EMC/RFI protection, ultra low noise signal 35 µg/√Hz, IP67 ingress protection and available from +/-2g in single, dual or triaxial versions. Custom brackets and interface cables can be supplied.



ECO CS-x311 Accelerometer

CS-1711LN Accelerometer



Double integration of signal obtained from remote accessed Dewetron DEWE3-M4 portable DAQ system

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