

Automotive Head Rest Testing Load Cell and Instrumentation

Industry: Test and Measurement

Summary

Customer Challenge

A manufacturer for automotive head rests wants to test the durability of their products. They want to do a number of fatigue testing and force testing on the head rests to make sure it meets durability and high quality standards.

Interface Solution

Interface's solution is to install Model 1000 Fatigue-Rated LowProfile™ Dual Bridge Load Cell to the customer's actuator mechanism. This load cell is perfect for fatigue testing and reports highly accurate results through the fatigue cycling. The results are collected by using the SI-USB4 4-Channel USB Interface Module, which synchronizes the data directly from the load cell and the string pot (for measuring distance) to the customer's computer.

Results

The head rest manufacturer was able to get highly accurate data through the fatigue testing cycle, using Interface's products.

Materials

- 1000 Fatigue-Rated LowProfile™ Dual Bridge Load Cell
- SI-USB4 4-Channel USB Interface Module with included SI-USB4 software
- PLC Programmable Logic Controller
- String Pot
- Customer Actuator Mechanism
- Customer's PC or Laptop

How It Works

1. The 1000 Fatigue-Rated LowProfile™ Dual Bridge Load Cell is installed at the end of the customer's actuator mechanism.
2. The head rest undergoes a cycle of fatigue testing, where the results are recorded using the 1000 Fatigue-Rated LowProfile™ Dual Bridge Load Cell.
3. The data results are collected with the SI-USB4 4-Channel USB Interface Module.
4. These results can be displayed when connected to the customer's PC computer or laptop using the supplied SI-USB4 software.

