

# Material Tensile Testing Load Cell

Industry: Test and Measurement

## Summary

### Customer Challenge

A customer wants to conduct a tensile force test on different samples and materials until failure. Materials include plastic, steel, or woven fabric. They want to measure tensile strength, yield strength, and yield stress.

### Interface Solution

Interface's 1200 Standard Precision LowProfile™ Load Cell is installed into the customer's test frame. The tensile test is conducted, and force results captured by the load cell and extensometer are synced through the SI-USB4 4 Channel USB Interface Module. These results can be displayed on the customer's PC with supplied software.

### Results

With Interface's force products, the customer was able to determine the tensile strength, yield strength, and yield stress of a variety of different materials.

## Materials

- 1200 Standard Precision LowProfile™ Load Cell
- SI-USB4 4 Channel USB Interface Module with supplied software
- Extensometer (optional)
- Grips
- Customer tensile test load frame
- Customer PC or Laptop

## How It Works

1. The 1200 Standard Precision LowProfile™ Load Cell is installed into the customer's tensile test load frame.
2. Different samples are tested and the force data is collected. The SI-USB4 has two, three, and four channels, so data from the extensometer can also be captured and synced together.
3. The data collection is captured by the SI-USB4 4 Channel USB Interface Module, and can be displayed when connected to the customer's PC with the supplied software.

