Pneumatic Actuator Seal Pressure Load Cells

Industry: OEM

Summary

Customer Challenge

A company wants to measure the contact pressure of their pneumatic actuator seals and its counterpart. Pneumatic actuators are essential in robotics and factory automation, especially when it is used in the applications such as motor controls. They want to ensure the pneumatic actuator's lip seal holds under different pressure loads.

Interface Solution

Interface suggests conducting a fatigue test using their 1200 Standard Precision LowProfile™ Load Cell. The 1200 is installed externally of the pneumatic actuator where different pressure loads are measured. The test is conducted until their pneumatic actuator is dismantled. Precise force results are captured using the 9840 Calibration Grade Multi-Channel Load Cell Indicator.

Results

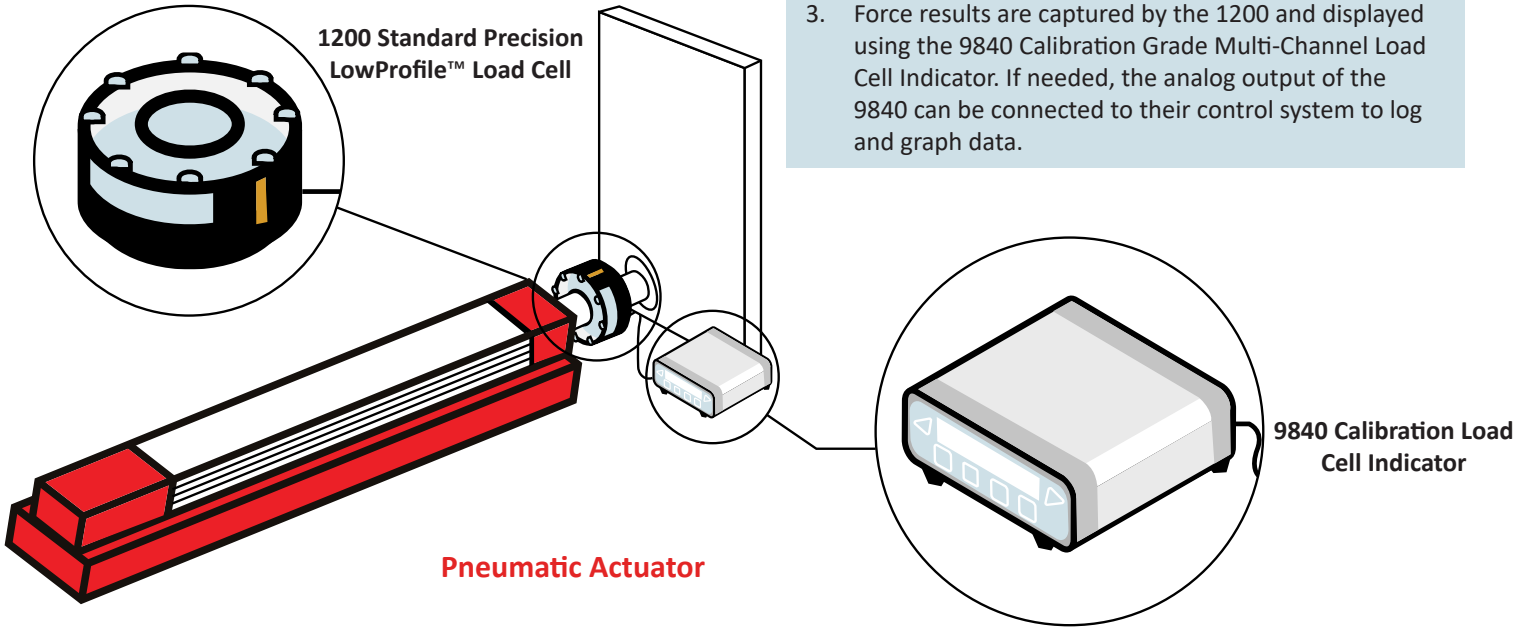
Interface's 1200 Standard Precision LowProfile™ Load Cell successfully measured the amount of force it took for the pneumatic actuator's seal to hold under different pressure loads.

Materials

- 1200 Standard Precision LowProfile™ Load Cell
- 9840 Calibration Grade Multi-Channel Load Cell Indicator
- Customer's pneumatic actuator
- Customer's static test rig

How It Works

1. The 1200 Standard Precision LowProfile™ Load Cell is installed to the external end of the piston on the pneumatic actuator.
2. A fatigue test is done on the actuator, where the different pressure loads are implemented.
3. Force results are captured by the 1200 and displayed using the 9840 Calibration Grade Multi-Channel Load Cell Indicator. If needed, the analog output of the 9840 can be connected to their control system to log and graph data.



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