

Amorphous Wire Pressure Sensor



Closed containers may gain or lose pressure due to a variety of reasons, and opening these containers may be dangerous. The Amorphous Wire Pressure Sensor is a passive, wireless sensor for determining internal pressure of a sealed container without the need for penetrations. The sensor can be embedded inside a container and its data read through the wall by an external detector.

DETECTOR / SENSOR / IMAGING

Features

- Wireless, inductive signal can be detected through variety of materials
- Does not require batteries

Benefits

- Small size
- Passive, wireless communication
- Eliminates the need for penetrations of containers that may be under high pressure
- Extended life span with no batteries to replace

Applications

- Sealed waste containers
- Process vessels
- Composite gas cylinders
- Measuring tire pressure

Patents & Awards

- U.S. Patent No. 9,146,168

Inventors

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Technology Readiness Level (1–9)



Model/prototype is tested in relevant environment.

Partnering Opportunities

Y-12 is seeking an industry partner to fully commercialize this technology.

If you would like more information, please contact the Office of Technology Commercialization and Partnerships: OTCP@y12.doe.gov (865) 241-5981 <http://www.y12.doe.gov/technologies>