

TapTone Seal Integrity Tester (SIT)



Seal Integrity Tester

Patented in-line leak inspection customized to mount inside the cup filling system.

In-Line Leak Inspection for Cup Filling Lines

The patented TapTone Seal Integrity Tester (SIT) system consists of multiple sensors mounted inside the cup filling system that inspect each cup by compressing the sensor head to the foil lid of the cup at full production machine speeds (200ms and higher). The sensors monitor the lid deflection during the compression cycle and the digital signal processor board calculates the inspection merit values to accept or to reject containers with defective seals that fall outside user set merit value limits

Benefits

- Sensor bridge mounts after sealing heads in your cup filler
- Sensor moves down during each inspection cycle
- Each sensor performs 100% seal integrity inspection on cup
- Reject signal is sent to filler that identifies defective cups for rejection

Seal Integrity Tester Technology Finds and Rejects:

- Bad seals caused by product across seal area during filling
- Deformed or damaged foil lids that cannot make a good seal
- Weak seals due to out of range heater temperature

Applications

- Yogurt
- Soups, Sauces
- Baby Food
- Dressings
- Juices, Dairy
- Coffee Pods

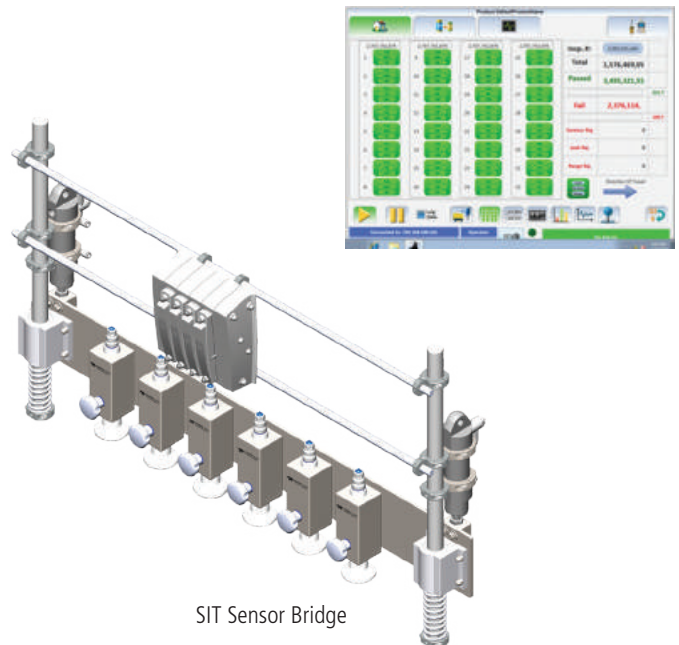
How It Works

Using state of the art DSP processor technology, the patented SIT sensor incorporates an easy to use PC user interface graphically displaying "good" non-leaking cups in green and "bad" leaking cups in red. Minimum leak detection specifications for the SIT system range from 0.006-0.008 inches (150-200 microns) with multiple inspection algorithms capable of not only seal integrity but also gross leaks and missing foil detection.

The SIT system can integrate into an existing filler PLC using Ethernet Modbus TCP/IP or Ethernet IP and sensors that mount to a vertical travel bridge after the sealing heads in your filler/sealer system. The bridge will cycle down and up based on your filler index speed. Bridge control will come directly from your filler PLC for perfect index timing.

SIT Sensor Bridge

The SIT system can be configured from 1 to 32 sensor heads depending on your production needs. Each sensor meets all 3-A Sanitary Standards and is washdown rated to IP69K. The accompanying bridge components are hygienic and rated to IP69K for full wash down.



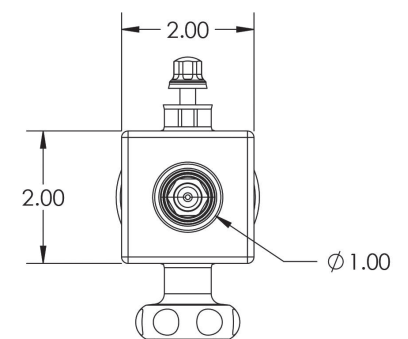
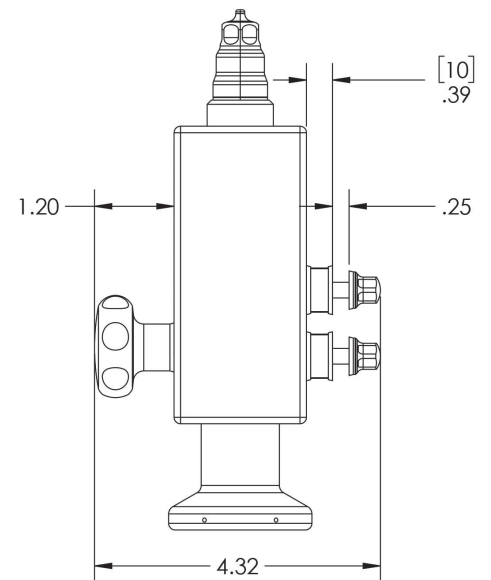
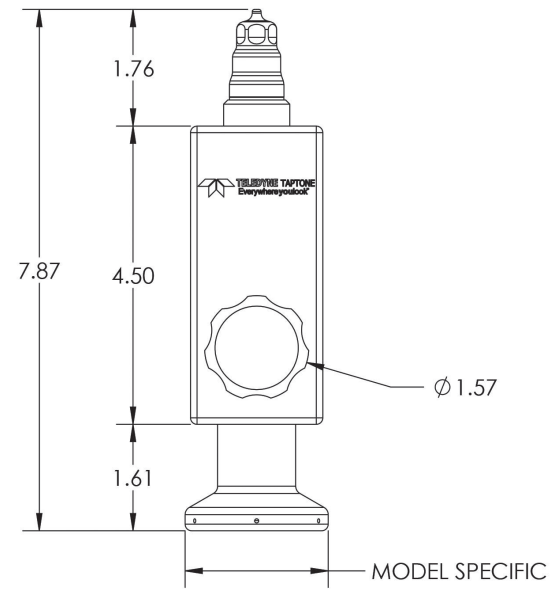
SIT Sensor Bridge

SYSTEM SPECIFICATIONS

Seal Integrity Tester General Specifications

Operating Speed (max)	200 milliseconds, 60 bridge cycles/minute, up to 1920 cups/minute
Number of Sensors	1 to 32 Sensors
Minimum Cup Sizes	43.8mm (1.75")
Minimum Sensor Pitch	50.8mm (2.0")
User Interface	15" color touch screen PC, IP69K washdown, 316 stainless steel box
PC Mount	40mm Tubing, IP69K Hygienic, Wall Mount
Washdown Rating	IP69K Protection
Power Requirements	110-120VAC/208-240VAC 3 Amps/1.5 Amps, Single Phase, 350 Watts
Operating Conditions	0° to 50° C (32°-122°) Relative Humidity 0-95%
Washdown Rating	IP69K, Designed to 3-A Sanitary Standards
Operating Air	Up to 100psi, 6.9 bar maximum
Raw Materials	316 Stainless Steel #4 finish and USDA 3-A Dairy Compliant Natural Delrin
Pneumatic Components	All made of 316 Stainless Steel, IP69K

Teledyne Patented Technology
Patent: US 9,274,023 B2



9/2021 Specifications subject to change without notice.
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