

Leak and Flow Test Instrument

SERIES LTI-250A

- Mass Flow
- Pressure Decay/Change
- Pressure or Vacuum
- Flow Ranges from 0-10 sccm to 0-300 slpm
- Accuracy to $\pm 1\%$ Full Scale
- Separate NEMA 12 Control Enclosure
- Easy Setup and Operation
- Color Touch Screen Display/Interface
- 15 Test Parameter Limit Tables
- Graphing
- Data Storage
- RS-232 Data Output



Dual Channel LTI-250A Leak Test

The LTI-250A is a unit that can be used for performing mass flow or pressure decay tests. The unit is recommended for applications in which two different tests need to run concurrently or when machine control is needed. The leak tester has the ability to store the leak rate detected and test results. The results can be collected through the use of the RS-232 port supplied on the unit.

MASS FLOW

The LTI-250A displays corrected airflow readings through the use of a mass flow transducer. This state-of-the-art technology provides test results, which are independent of daily changes in barometric pressure and ambient temperature. This leak test instrument measures the leakage or flow of air through the part being tested at a specific test pressure. When the leak test is initiated this instrument automatically pressurizes the part, allows the air pressure within the part to stabilize, and then measures the actual leakage through the part. The leakage or flow is displayed in actual engineering units.

PRESSURE DECAY / CHANGE

Two pressure decay/change methods are available depending upon the specific application. Applications with a high leak rate specification or small test volume utilize a gage-pressure-decay test method. Applications with a low leak rate specification or large test volume will use a pressure-differential-decay test method. With either method this leak test instrument pressurizes the test part, allows the air pressure within the part to stabilize, and measures the decay/change in pressure.

SETUP & OPERATION

The LTI-250A leak test instrument is easy to setup and operate. The setup procedure is menu driven in response to operator inputs to the front-mounted color touch screen display. A maximum of fifteen (15) test parameter limit tables are included with this unit. Setup parameters for each table includes fast fill pressure and tolerance, test pressure and tolerance, cycle times, accept/reject parameters, consecutive reject set point, and orifice qualification set points. Transducer calibration is also menu driven.

SYSTEM ENCLOSURES

The LTI-250A is housed in separate enclosures linked by an electrical cable(s). One (1) electrical enclosure and up to two (2) pneumatic enclosures are provided. The electrical enclosure contains the processor, color touch screen, power supplies, push buttons, and indicator lights. One (1) RS-232 output port, external to the enclosure, is available for data output. The pneumatic enclosure(s) contain the pressure and leak transducers, regulators, and valves. Ports are provided on each enclosure for air and power connections. The standard color for the LTI-250A is white.

DIMENSIONS

Control/Pneumatic Enclosure	12" high x 14" wide x 8" deep
Pneumatic Enclosure	12" high x 14" wide x 8" deep

WEIGHT

Control Enclosure	27 pounds
Pneumatic Enclosure	32 pounds

ENVIRONMENTAL CONDITIONS

Operating Temperature	35-130°F (2-55°C)
Storage Temperature	35-150°F (2-66°C)
Test Part	Room Temperature
Relative Humidity	0-95% Non-Condensing

POWER REQUIREMENTS

Input Power	100-250 VAC
Frequency	50 or 60 Hz
Current	6 amps maximum

SHOP AIR REQUIREMENTS (CLEAN, NON-LUBRICATED, DRY AIR)

Pressure Test	Input Pressure	125 PSIG maximum (STD)
	Test Pressure	100 PSIG maximum (STD)
Vacuum Test	Input Vacuum	30 in Hg maximum (STD)
	Test Vacuum	25 in Hg maximum (STD)

CONTROL INTERFACE

Inputs	(4) BCD Remote Start/Stop per Channel	24 VDC or Dry Contact
Outputs	(1) End of Test per Channel	24 VDC or Dry Contact
	(1) Accept per Channel	24 VDC or Dry Contact
Computer/Printer	(1) RS-232 Serial Port	Data Output (ASCII)
Network	(1) DirectNET Port	Max. Baud Rate = 19.2K

PERFORMANCE (FLOW RANGE AND SCALING)

Minimum Full Scale Range	2.00 SCCM
Standard Full Scale Range	10 SCCM to 30 SLPM
Maximum Full Scale Range	Up to 300 SLPM (Consult Factory)
Accuracy	± 1% of Full Scale
Linearity	0.5% of Full Scale Range
Repeatability	± 0.2% of Full Scale
System Warm Up Time (from Room Temperature)	Casual Operation: 5 seconds
	Precise Measurement: 10 minutes



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