LT1 Series

Single and Multi-Head Bottle Leak Detectors

Overview

The LT1 leak detector is an in-line, bottle leak detection system capable of testing from 1 to 4 bottles at a time, with throughput to 100 bottles per minute depending on the number of test channels fitted.



The LT1 is designed for 100% leak testing of blow moulding machine output. Several options are now available to allow this system to perform a variety of important additional bottle operations.

Benefits

• High Accuracy Leakage Measurement

Measurement Errors are minimized through the use of a sensitive pressure transducer with a low noise amplifier and high-speed, high-resolution analog to digital converter.

• Microprocessor Control System



LT1 Models Available with 1-4 Test Heads

- User friendly, intuitive operation.
- Extremely flexible design.
- Extra features and customisations now easily integrated into existing systems
- All settings are grouped together on a Settings page for easy inspection and modification.
- All input/output states are displayed together on a Diagnostics page for quick fault finding.
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- All input/output states are displayed together on a Diagnostics page for quick fault finding.
- Simple 4-core cable connection to touch panel avoids complex and messy connectors.
- Setting changes can be locked out if required.



• High Reliability

Advanced technologies reduce the number and complexity of internal components. In-depth understanding of failure mechanisms, coupled with the integration of all electronic functions onto the PCB, assures that the LT1 meets only the highest standards of reliability.



50 Million Cycle Valves

Self tuning photoswitches

• Modular Pneumatic System

Modular design allows quick, flexible customisation of the LT5 system to meet special needs and facilitate easier expansion even after installation.

• Flexible Bottle Transport System

Timings can always be easily adjusted to maintain optimum bottle transport without sacrificing test time.

• Cost Effective

The LT1 circuit cards have been designed and programmed specifically for flexibility. Great care has been taken to ensure that the system is easily re-programmable and expandable to meet rapidly changing needs. With this system, the performance limitations of using a bought-in PLC are easily avoided.





Specification

Hole Size Detected / Bot-

tle Throughput

0.1mm / 80 bottles per minute / 4 heads. See performance

Graphs for details.

Number of Test Channels

1,2,3 or 4 (Specify when order-

ing)

Leak Test Method

Ratiometric Pressure Decay, Auto-zero, Auto-Scale. Adaptive pressurisation algorithm.

Power Supply

110/120 or 220/240 VAC, 50-60

Hz, single phase

Power Consumption

50 VA maximum (excludes con-

veyor)

Air Supply

60-150 psi (4-10 bar)

Air Consumption

1 litre per minute typical

Minimum Bottle Volume

250 cc

Maximum Bottle Volume

10 litres (2 gallons)

Test Pressure

Adjustable, 0.15 - 0.6 psi (10 -

40 mB)

Cycle Time

1.0 - 20.0 seconds

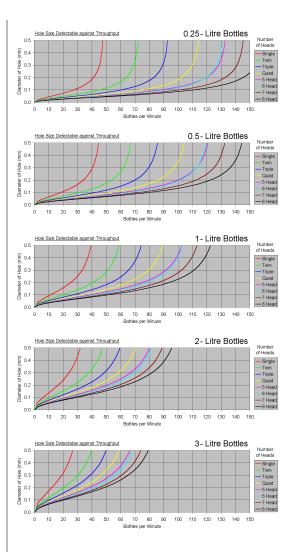
Transducer

Semiconductor strain gauge diaphragm, 0.00 - 65.00 mB, 0.02% resolution, x20 Overpressure Protection.

Options

- Choked Bore / Ovality Test
- Flash Detection
- Fallen Bottle Rejection
- Batch Counter / Diverter
- Vacuum Operation
- vacuum OperationData Logging / SPC
- Collating Table Control
- Bottle Orientation
- Angled Neck Bottle Testing

To use the graphs, first choose the graph with the nearest bottle size (shown at bottom). Find a coloured line where the required hole size and throughput intersect. Read off the number of heads required from the key on the right of the graph. Contact the office if in doubt!



Ordering Information

The LT1 is available complete including conveyor system, or alternatively as a kit for system integrators or for fitting to an existing customer conveyor. The system can be fitted with between 1 and 4 channels of leak detection plus the options listed previously. More than 4 heads requires our more advanced LT5 model.

For more details contact the office, our distributors or see our web site www.plastech-controls.com, where you can obtain complete on-line sales literature, user manuals and technical documentation.



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