Overview

The LT5 leak detector is an in-line, bottle leak detection system capable of testing from 1 to 16 bottles at a time, with throughput to 240 bottles per minute depending on the number of test channels fitted.

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.

- **Touch-Screen Microprocessor Control System**
  
  New technologies make the touch-screen a far more efficient and cost effective means of interfacing with the system than with the older, plain digital readouts. Some of their many advantages are:
  - User friendly, intuitive operation.
  - Extremely flexible design.
  - Extra features and customisations now easily integrated into existing systems
  - All test results, displays and counts are displayed together on the main Displays page.
  - Evaluate system status at a glance.
  - 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.
  - 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 LT5 meets only the highest standards of reliability.

- **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 LT5 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. General Description The LT5 leak detector is an in-line bottle leak detection system capable of testing between 1 and 16 bottles at a time (depending on the number of test channels fitted). Its intended use is for 100 of the output of a blow-molding machine. Various options are available which allow the system to perform additional operations on the bottles.
Options

- Choked Bore / Ovality Test
- Flash Detection
- Fallen Bottle Rejection
- Batch Counter / Diverter
- Data Logging / SPC
- Wall Thickness Measurement
- Collating Table Control
- Bottle Orientation
- Angled Neck Bottle Testing

Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Hole Size Detected / Bottle Throughput</td>
<td>0.1mm / 140 bottles per minute / 8 heads. See performance Graphs for details.</td>
</tr>
<tr>
<td>Number of Test Channels</td>
<td>1, 2, 3, or 4 (Specify when ordering)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>110/120 VAC single phase</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>50 VA maximum (excludes conveyor)</td>
</tr>
<tr>
<td>Air Supply</td>
<td>60-150 psi (4-10 bar)</td>
</tr>
<tr>
<td>Air Consumption</td>
<td>1 litre per minute typical</td>
</tr>
<tr>
<td>Minimum Bottle Volume</td>
<td>250 cc</td>
</tr>
<tr>
<td>Maximum Bottle Volume</td>
<td>10 litres (2 gallons)</td>
</tr>
<tr>
<td>Test Pressure</td>
<td>Adjustable, 0.15 - 0.6 psi (10 - 40 mB)</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>1.0 - 20.0 seconds</td>
</tr>
<tr>
<td>Transducer</td>
<td>Semiconductor strain gauge diaphragm, 0.00 - 65.00 mB, 0.02% resolution, x20 Over-pressure Protection.</td>
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</table>

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 LT5 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 16 channels of leak detection plus the options listed previously.

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.