

Leak Detector For High Volume Production



Up to
15 parts
tested per
second

On the basis of its well-proven concept of production line QC Testers, ATEQ has now developed a new leak Tester, designed for the specific requirements of high volume production of plastic parts.

This instrument is used for the detection of localised moulding faults, insufficient membrane thickness, perforations, etc....

The IONIQ is based on discharge current measurement and is able to detect defects in the region of 10µm.



Main features

- Single channel
- Speed: up to 15 tests/s
- Start by (optical) sensor Inputs

2 possible configurations:

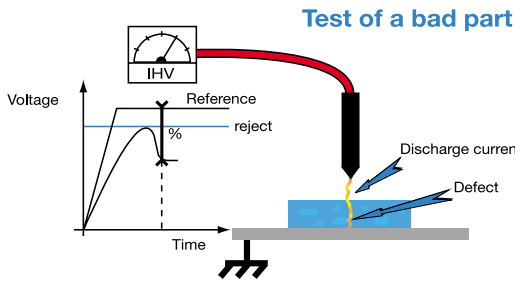
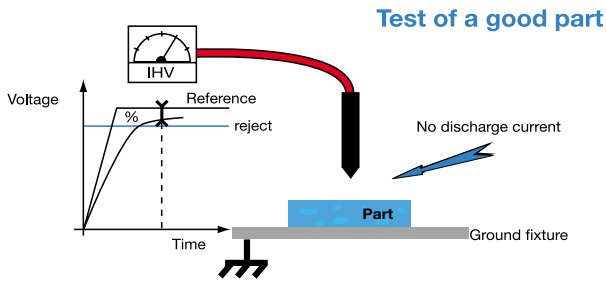
- 1 to 6 channels
- Speed: minimum cycle time: 0.7 s
- External test result box

Common specifications:

- Discharge current measurement
- Integrated ionising high voltage generator
- I/O's for instrument control and results
- Reject levels as % of nominal voltage
- Monitoring and protection of high voltage generator
- Output current limitation



Measurement principle



Operation description of the ATEQ IONIQ

- ▶ The IONIQ measures the current flowing between a patented charged probe and a ground plate placed under the part to be tested.
- ▶ The IONIQ uses the % of the nominal voltage (which reflects the discharge current), measured on the part as PASS/FAIL level.
- ▶ In a PASS situation.
No hole, no weak part, the IONIQ measures a high %.
The measured voltage and the nominal voltage are virtually equal.
The result is above the reject level, the part has passed the test.
- ▶ In a FAIL situation.
The IONIQ measures a low %. The measured voltage is significantly below the nominal voltage. The result is below the reject level, the part has failed the test.
- ▶ Test limitations: short probe-part-plate distance, electrical insulation from environment.



Applications

This system is ideal for your high volume tests on bottle caps for injection point defects, on plastic or insulating membranes for thickness defects.



Technical Features

- **High voltage generator**
Integrated and adjustable according to application.
- **Temperature**
Operating: from + 5 to + 45°C
Storage: from 0 to + 60°C
- **Dimensions**
H x W x D = 420 x 300 x 160 mm
Weight: 6.5 kg
- **Power supply**
Mains ~ 90 V à 260 V AC
Single phase ~ 50/60 Hz - 40 VA
Note: It is vital that the instrument is connected to a good quality earth.
- **Interfaces**
Programming on front panel.
8 inputs / 8 outputs for PLC controlled applications.
Isolated RS 232 / RS 485 for printer or MODBUS type network.
Inputs:
Optically isolated (3750 V RMS).
24 V - 10 mA maximum or dry contact.
Outputs:
Relay output
Rated 48 V / 500 mA maximum.
- **Optional**
Pre-charge and discharge electrodes (ATEQ patent).



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