# Provaset T3LPQ

MARPOSS
TECNA

## INSTRUMENT FOR LEAK TESTS WITH THE DIRECT MEASURE OF THE LEAK FLOW RATE

- Leakage measure with mass flow sensor: fullscale ranges up to 100 cm3/min resolution up to 0.01 cm3/min
- 300 test programs
- 300 test sequences
- Digital I/O interfaces, RS232/RS485 serial lines, USB for PC and Ethernet
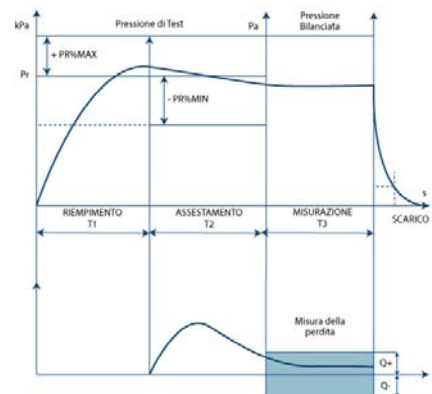
## DESCRIPTION

Provaset T3LPQ is an electro-pneumatic instrument, designed for testing air tightness by direct measurement of air leakage. The balanced pressure method allows to obtain measurements that are independent from the tested volume and it offers the  best stability and precision.

The touch interface, with a colour display and a real-time view of the tests makes the programming and the use simple and immediate.
PROVASET T3LPQ is suitable for all industrial segments, on testing benches, in production lines or in  fully automated systems.
Finally, the control of external

automations, the connection with barcode, Qrcode readers and printers and the possibility to record the tests on USB memories or via Ethernet make it a complete and suitable instrument for the most modern production methods.

## TEST

### MEASURING THE LEAKAGE FLOW

At the end of the phases of filling and settling, the pressure is maintained constant by the internal electronic controller. The flow that originates therefore corresponds to the flow required to maintain the product under test at the programmed test pressure and thus corresponds to the leakage flow. The leak is measured continuously allowing the operator to immediately execute processes of adjustment or repair.
This method is very effective and flexible and allows a significant reduction of the test time.



### CALIBRATION SERVICE

Each equipment is accompanied by a calibration report released by Tecna srl.
According to the requirements of ISO9001 standard, calibration must be verified at specified intervals against national or international test masters. Tecna srl, through its specialized personnel and certified instruments, offers a complete scheduled calibration service.

# Provaset **T3LPQ**

### SPECIFICATIONS

| | |
|---|---|
| Power supply | External 24 Vdc; alternatively 85÷264 Vac, 35W |
| Compressed air line | Dry, non-condensing, 5-micron filtered, and oil-free air, compliant with ISO8573-1. |
| A/D converters | 24 bits |
| Calibration | Calibration certificates for pressure and flow sensors<br>Software-guided procedure with primary instruments. |
| Pressure regulator | Electronic, with dedicated pressure transducer to visualize the regulated pressure on the display |
| Keyboard | Resistive touch screen |
| Display | 7" colour TFT LCD display |
| Indicators | 4 LED lights (testing phases, passed/rejected result) |
| Test counter | Pass and Reject totals, resettable to zero<br>Statistic option: mean value, minimum, maximum, standard deviation, normal distribution, CP, CPK, hour production totals |
| Audio alarm | Built-in beeper with programmable duration |
| Clock | Date and time, with supercap, max autonomy 7 days |
| Programmable parameters | 300 testing tables with sequential mode, general parameters, volume calculation to indicate the leak rate in $cm^3$/min or $cm^3$/h |
| PLC connections | 8 photocoupled inputs and 8 photocoupled outputs<br>Each I/O is fully programmable<br>Control of external automation (coupling, security cage...) without PLC |
| Data interfaces | Configurable serial lines RS232/RS485<br>Interface USB-B (device) and Ethernet<br>Protocols: Modbus RTU, CSV ASCII output, barcode, Qrcode, printer |
| Staubli® Connector | Standard, for certified Leak Master |
| Housing | Unpainted anodized aluminium |

## OPTIONS

- 2 programmable pneumatic outputs for external commands (plug/marker)
- I/O expansion: adds digital PLC inputs/outputs (8+8) and a RS232/RS485 serial line
- Additional USB, Ethernet, ProfiBUS or CANbus interfaces for remote control and data collection
- Real time SPC statistical analysis graphs
- Software for managing label printer, barcode or Qrcode reader

## ACCESSORIES

- Air filters
- Certificated Leak Master to be inserted in the Staubli® connector
- Remote control keypad
- 3-colours indicator light with loud sound alert
- External valves for a quicker filling phase

### DIMENSIONS



145 mm
215 mm
255 mm

## CUSTOMIZED PROGRAMS FOR PC/HMI TERMINAL

- Software to collect and manage the data of the tests
- Parameter programming and SPC analysis of test data
- Virtual Instrument for National Instruments LabVIEW™ available at request

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