Provaset T3PQ

INSTRUMENT FOR LEAK TESTING WITH CONTINUOUS MEASURE OF LEAK FLOW RATE AT BALANCED PRESSURE

Provaset T3PQ is an electro-pneumatic instrument, designed for testing air tightness by direct measurement of air leakage.

The balanced pressure method allows for measurements that are independent from the tested volume and offers the best stability and precision.

The touch interface, with color display and real-time view of testing, make programming and use simple and immediate.

PROVASET T3PQ is suitable for use in all industrial segments, on testing benches, production lines or fully automated systems.

Finally, the control of external automations, the interface with barcode 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.

Further information at: www.tecnasrl.com/products/t3pq

Tests

Easily adjustable testing parameters

Real-time SPC analysis and production graphs

Graphical display of the testing cycle

INNOVATIVE
COLOUR GRAPHIC DISPLAY
TOUCH SCREEN
FULLY INTERFACEABLE

- Fast test of, for eg: filters, valves, taps, cooktops ...
- Leakage measure with mass flow sensor: fullscale ranges up to 100 cm³/min resolution up to 0.1 cm³/h
- Pressure measurement and regulation: fullscale ranges up to 10 bar resolution up to 1 Pa
- 50 test programs with sequence mode
- Digital I/O interface
- USB and RS232/RS422/RS485 serial lines
- Test recording on USB memories (option)
- Real time SPC statistics (option)

T3PQ is entirely designed and manufactured in Italy. Our products guarantee an excellent quality and the best value for money.
ACCESSORIES

- Air filters and oil separators
- Remote control keypad
- 3-colour indicator light with loud sound alert
- Certificated Leak Master

OPERATING PRINCIPLE

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

OPTIONS

- 2 programmable pneumatic outputs for external commands (coupler/marker)
- I/O expansion: adds 4 inputs + 4 digital outputs and 1xRS232/RS422/RS485 serial line
- 24Vdc power supply
- Additional RS232/422/485, USB, Ethernet, ProfiBUS or CANbus interfaces for remote control and data collection
- Real time SPC statistical analysis
- Software for managing label printer and barcode reader

CUSTOMIZED PROGRAMS FOR PC/HMI TERMINAL

Viewing and management of several testing stations. Parameter programming and SPC analysis of test data. Virtual Instrument for National Instruments LabView™ available at request.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>Universal: 85÷264 Vac, 47÷63 Hz, 30 VA (24 Vdc option)</td>
</tr>
<tr>
<td>Compressed air line</td>
<td>Dry, non-condensing, 5-micron filtered, and oil-free air, compliant with ISO8573-1.</td>
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<tr>
<td>A/D converters</td>
<td>24 bits</td>
</tr>
<tr>
<td>Class</td>
<td>Pressure: 0.5% FS, Flow: 2% FS</td>
</tr>
<tr>
<td>Calibration</td>
<td>Calibration certificates for pressure and flow sensors</td>
</tr>
<tr>
<td>Pressure regulator</td>
<td>Electronic</td>
</tr>
<tr>
<td>Keyboard</td>
<td>Resistive touch screen</td>
</tr>
<tr>
<td>Display</td>
<td>3.5” colour TFT LCD display with touchscreen</td>
</tr>
<tr>
<td>Indicators</td>
<td>4 LED lights (testing phases, pass/reject outcome)</td>
</tr>
<tr>
<td>Audible alarm</td>
<td>Built-in beeper with programmable duration</td>
</tr>
<tr>
<td>Clock</td>
<td>Date and time, with supercap, max autonomy 7 days</td>
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<tr>
<td>Programmable parameters</td>
<td>50 testing tables with sequence mode</td>
</tr>
<tr>
<td>PLC connections</td>
<td>4 photocoupled inputs and 4 photocoupled outputs</td>
</tr>
<tr>
<td>Data interfaces</td>
<td>Control of external automation (coupling, security cage...) without PLC</td>
</tr>
<tr>
<td>Staubli® Connector</td>
<td>Standard, for certificated Leak Master</td>
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<tr>
<td>Housing</td>
<td>Unpainted anodized aluminium, ABS</td>
</tr>
</tbody>
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DIMENSIONS

- 255 mm x 215 mm x 145 mm
- 145 mm

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 test pressure programmed 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.

The test cycle could also be programmed to automatically start when product in test is connected to the instrument.