WORKER Integra™

YMulti-Channel Leak, Leak/Flow or Leak/Occlusion Tester

The Worker Integra is an integrated process control tool, with repeatable and quantitative results, it is an a ordable unit for everyday leak, flow and occlusion testing requirements.

A one to four channel, bench-top, high resolution (as low as 0.0001 psig) leak test instrument with a small footprint and user-friendly ease of operation.

The system can be con gured to pe orm pressure or vacuum decay leak testing, flow and occlusion testing on non-porous, flexible or rigid products.

Models are available for pressure ranges from 15 to 150 psig, or vacuum, and ow rates from as little as 10 sccm to as much as 10 lpm.

TM Electronics' Technical Specialists are highly experienced and ready to assist you in determining and solving your leak, flow and package testing needs and in getting the most out of your test system.

In addition to our wide range of package testing accessories, our Design Engineering team can provide you with help in addressing unique package testing situations and requirements.

Visit us at www.tmelectronics.com for more information on the technology of leak, flow and occlusion testing and how we can best help you.

www.tmelectronics.com

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Protecting
Product Integrity

Typical Applications

Icon-Based Touch Screen Color Control

The touch screen display provides easy, clear navigation though the wide variety of data handling and review screens. Clearly de ned incons make it easy to choose the test modes, select parameters, and view test results with an interactive graph that makes it easy to view the pressure or ow during the test.

Programs

The Worker Integra allows users to input test settings using a touch screen menu and parameters that can be stored as programs, while tracking lot codes, operator name, and other vital information. Programs can be associated with specifc items under test to maximize operator effciency and accuracy when a variety of products are being tested. The instrument can store over 100 programs in memory, to be recalled at the touch of an operator.

Test Results

All test results in the data log can be navigated and reviewed with ease. e advanced communications functions include an RS-232 port and USB slave serial port that log test results and can accept remote start commands. Data may be exported to USB storage devices and are accessible over the LAN using any web enabled browser. The Worker Integra's data storage meets FDA CFR 21 Part 11 standards for security.

Leak Testing

Leak Testing with the TME Worker Integra is simply pressure sensing, with its high pe ormance resulting from our propriety sensing technology and low internal volume design. When the tested product is connected to the front panel test port , internal valves allow air (or other gas) to pressurize the part and connect the part to the sensing transducer. Pressure changes as low as 0.0001

Vacuum Decay Testing

Vacuum Decay Testing functions similarly to pressure decay tests; however, vacuum tests are limited to less than one atmosphere test pressure and are usually pe ormed where special cations of the test part demand this pressure differential.

Flow Testing

Flow Testing uses a precision mass ow sensor to make a direct measurement of air ow through the tested part . A direct flow reading means no separate pressure measurements or special calculations are made in the instrument.

Occlusion Testing

Occlusion Testing is a special type of flow test in which the instrument measures the back pressure of air owing through the part to determine the extent to which the part is occluded.

Models	Leak	Leak+Flow	E/P Regulator
Test Modes By Model	Leak Occlusion Link	Leak Flow Occlusion Link	*same as with automatic electronic regulator

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TME

Pressure Specifications

Model	Vaccum	Pressure/ Vacuum	15 psi	50 psi	100 psi	150psi
Range (Psig)	-13.5 - -0.5	0 - 30 PSIA	0.5 - 15	1.0 - 50	2 - 100	2 - 150
Resolution (Psig)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Presssure accuracy +/- 0.5% FSD	+/- 0.068	+/- 0.075	+/- 0.075	+/- 0.25	+/- 0.50	+/- 0.75
Repeatability (6 sigma/ FSD)	<1%	<1%	<1%	<1%	<1%	<1%

Flow Specifications

Flow Ranges (SCCM)	0.1-10	10.0 - 500	20 -1,000	100 - 5,000	200 - 10,000
Accuracy +/- 2% FSD	+/- 0..2	+/- 10.0	+/- 20.0	+/- 100	+/- 200
Resolution (SCCM) FSD)	0.1	0.1	0.1	0.1	0.1

Technical Details

Dimensions:

10”W x 10”D x 9”H
25.4 W x 25.4D x
22.86H cm

Power:

90-240V@ 50-
60Hz (60 Watt
max)

Storage and/or Operating Environment:

10-30°C (50-90°F)
RH < 80%, non-
condensing

Controls:

LED Start /Stop
buttons Keylock,
Power Button

Test Channels:

Single Channel up
to 4 Channels

Pressure control:

Push buttons,
Touch pad Keylock,
Power on/off

Pressure Units:

Psig, InH^2O, mBar,
kPa, Inhg

Flow Units:

sccm, sLPM, scfm

Display:

5.7” QVFA Color
Touch screen

Test Modes:

Leak, Flow,
Occlusion, and up
to 3 linked tests

Memory Capacity:

128 Mbytes
(expandable
internal option to
512 Mb)

Peripherals (I/O):

USB Host Port (1 front,
1 rear) HID inte ace:
mouse, key board,
bar code reader Mass
Storage: export data
to USB ash memory
Printers: Output results
and test parameters
USB Device Port (Virtual
COM port control Serial
RS-232 (DB9)

LAN (Network):

RJ45-LAN (remote
VNC, Telnet, Web-
browser)

Accessory I/O:

8 Opto Outputs, 8
Inputs, 3 Digital I/O
Input for remote
start /stop Output
pass and fail

Calibration:

NIST Traceable

Test Time:

0.1 to 1,000 sec
(resolution 0.1 sec)

System CPU:

32 bit oating point
precision

TM Electronics

web. tmelectronics.com
email. PiSales@industrialphysics.com
tel. (978) 772-0970

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