WORKER Integra™

TME
TM Electronics

Multi-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 affordable 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.

me system can be configured to perform 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 flow 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.

Standard test modes:

Pressure or Vacuum decay leak, Back pressure Occlusion, or Flow rate (optional) On 1 to 4 channels

Standard I/O functions:
USB connection to PC
USB ports for keyboard, mouse, printer, or barcode reader
USB storage support for program data and datalog record export
LAN remote instrument control, data transfer, and operation
Web interface for datalog review

Meets FDA CFR 21 Part

11 NIST traceable

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 defined icons 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 flow during the test.
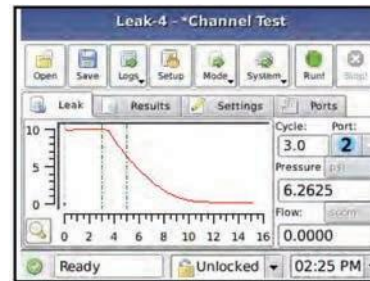
Programs

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 specific items under test to maximize operator **efficiency** and accuracy when a variety of products are being tested. me 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. me 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. me Worker Integra's data storage meets FDA CFR 21 Part 11 standards for security.

Leak Testing with the TME Worker Integra is simply pressure sensing, with its high performance 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 psi are detected from leaks in the tested part.

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

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

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

With the Worker Integra leak tester you can create and store test programs associated with your products. me instrument can be locked so the parameters cannot be accidentally changed.

When the leak test is run, you can select a real-time graphic display of the ongoing test that will, upon completion of the test, show the test result (accept/ reject/decay).

A more visible results screen is also available to give the operator a vivid green (accept) or red (reject) results indicator while still providing the leak decay.

All test records are securely stored in the instrument's memory until the instrument is unlocked and the data is downloaded or erased.

Specifications:

Dimensions: 10"W x 10"D x 9"H
25.4 W x 25.4 D x 22.86 H cm

Power Supply Voltage:
90-240V @ 50-60Hz
(60 Wat max)

Storage and/or Operating Environment
10-30ºC (50-90ºF)
RH < 80%, non-condensing

Controls: LED Start/Stop buttons
Keylock, Power Button

Test Channels: Single Channel up to 4 Channels

Pressure control : Manual adjustable precision regulator or E/P automatic regul;ator

Pressure Units: Psig, InH2O, 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

Specifications continued:

Memory Capacity: 128 Mbytes (expandable internal option to 512 Mb)

System CPU: 32 bit floating point precision

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

Peripherals (I/O) USB Host PoL (1 front, 1 rear)
HID inteGace: mouse, key board, bar code reader
Mass Storage: expoL data to USB flash memory
Printers: Output results and test parameters
USB Device PoL (ViLuaI COM poL control
Serial RS-232 (DB9)

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

Calibration: NIST Traceable

Test Time 0.1 to 1,000 sec (resolution 0.1 sec)

Pressure Specifications   Pressure and Vacuum Models

Model	Vacuum	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
Pressure 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 Models only

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)	0.1	0.1	0.1	0.1	0.1

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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