



SENTINEL Blackbelt®

LEAK AND FLOW TEST INSTRUMENT



Sentinel Blackbelt Leak Test Instrument

The Sentinel Blackbelt instrument offers many testing capabilities in a compact, benchtop design. The instrument can be ordered with multiple test options; the test options may operate as independently conducted tests or as a complete testing sequence. The Blackbelt may be ordered with one, two, three, or four test ports.

- Pressure Decay
- Mass Flow

Standard Blackbelt Test Types

Pressure Decay Test Types

- Pressure or vacuum decay - leak std
- Pressure or vacuum decay - ΔP
- Pressure or vacuum decay - $\Delta P / \Delta T$
- Occlusion - pressure or vacuum
- Ramp to ΔP event
- Ramp to flow
- Ramp to proof - pressure or vacuum

Mass Flow Test Types

- Mass flow - pressure or vacuum
- Mass flow - leak std
- Controlled flow

Instrument Highlights

Superior Performance

- Leak rate measurement resolution:
- PD / Mass flow 0.0005 scc/min
- Powerful 32-bit processor
- 24 bit A/D converter
- Optimized pneumatic manifolds
- Flow meter sized to the application
- Environmental drift correction

Global Friendly

- Language neutral operator interface
- Multi-language - software selectable
- English, Spanish, Portuguese, Chinese, and Korean
- Smart voltage selection
- International power cable included

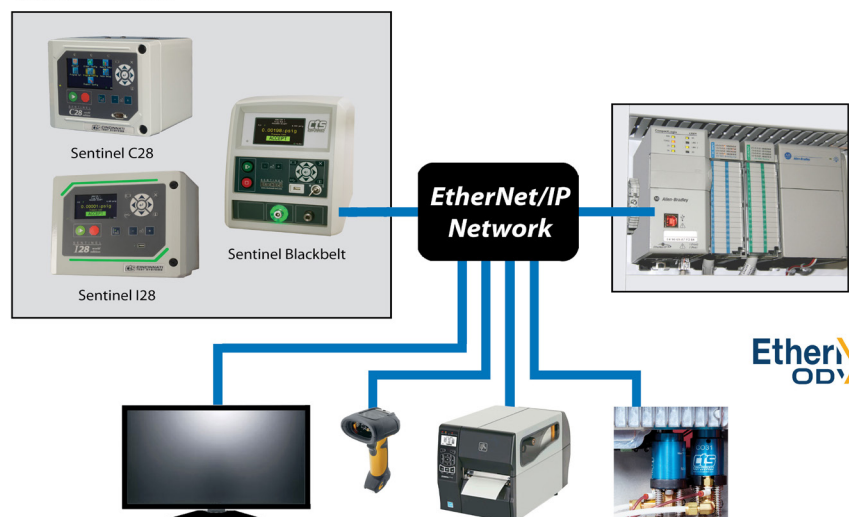
Low Maintenance

- Reduced wear - long life valves and manifolds
- Self-Test function
- Modular design for easy maintenance
- 40 million cycle valve manifolds

EtherNet/IP[™] Communication

- Leak and flow system integration made easy
 - RJ45 interface connection
 - Reduces installation time
 - Simple 'plug-and-play' integration to PLC
- Provides more I/O
 - 26 inputs / 25 outputs
- CTS EtherNet/IP is ODVA Conformance Tested for flawless operation and verified data exchange

Typical CTS EtherNet/IP Network Interface



EtherNet/IP[™]
ODVA

Sentinel Blackbelt Features

Test Range Options by Model

- Pressure -14.5 to 500 psig
- Flow 0.5 to 3000 scc/min

Data / Communications

- Data storage to 30,000 events, expandable with USB memory stick
- 99 test program storage
- 6 inputs/6 outputs with 5 programmable tooling motions
- Digital input feedback verifies motion
- Flow and leak auto calibration
- RS232 and Ethernet communication ports
- EtherNet/IP™ communication
- Barcode unique part identification
- Email of reports, test data, and alerts
- Test result data transmission with definable fields

Product Enhancements

- Patented Auto Setup
- Quik Test reduces cycle time
- High contrast color display
- XY Graphing (pressure, pressure loss or flow)
- Low volume and high flow manifold designs
- Multi-point calibration on electronic regulators
- Choice of internal or external leak standards
- Validated software



Sentinel Blackbelt leak and flow test instrument



Custom Blackbelt test system

Our Family of Test Instruments and Products



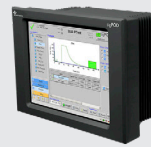
Blackbelt Pro



3520



sigPOD Controller



I28



C28



LPC 528



C20



TracerMate CS



CTS Connect®
Connectors and Seals



CTS Leak Standards and
Calibration Services

Visit our website: www.cincinnati-test.com



LEAK TEST SOLUTIONS AND SOFTWARE FOR IN-PROCESS DATA ANALYSIS

CTS, CTS-Schreiner and Sciometric are subsidiaries of the TASI Group. In November 2017, the three companies came together within TASI's Product Integrity Division. We are unified by the fact that we are "Better Together". Together, we deliver the broadest leak test portfolio in the industry. Together, we serve our customers through a global network of offices and partners. Together, we will harness the power of the Industrial Internet of Things and bring all of its potential to industrial companies worldwide.

INDUSTRIES WE SPECIALIZE IN



AUTOMOTIVE



POWERTRAIN



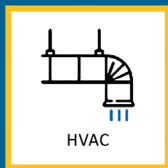
CONSUMER GOODS



MEDICAL



ENERGY



HVAC



OTHER TRANSPORTATION



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