LEAK AND FLOW 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

### Pressure Decay Test Types
- Pressure or vacuum decay - leak std
- Pressure or vacuum decay - $\Delta P$
- Pressure or vacuum decay - $\Delta P/ \Delta T$
- Occlusion - pressure or vacuum
- Ramp to $\Delta P$ 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

### Standard Blackbelt Test Types

#### 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
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

Our Family of Test Instruments and Products

Visit our website: www.cincinnati-test.com
LEAK TEST SOLUTIONS AND SOFTWARE FOR IN-PROCESS DATA ANALYSIS

CTS, CTS-Schreiner and Sciemetric 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