

Sentinel 128

Leak and Flow Test Instrument



Instrument Features

Standard Test Types:

- Pressure/vacuum decay leak standard
- Pressure/vacuum decay ΔP
- Pressure/vacuum decay ΔP/ΔT
- Pressure/vacuum occlusion
- Pressure mass flow
- Pressure mass flow leak standard
- Parent program linking

99 Test Programs:

Application flexibility including individual user programmed:

- Test types
- Timers
- Pressure limits
- Reject limits
- Calibration parameters
- Units of measurement
- Digital I/O
- Tooling control

Patented Auto Setup:

- Automated optimization of test program based on maximum user allowable cycle
- Significantly simplifies instrument test programming and setup

32-bit Processor & 24-Bit A/D Converter:

- Exceptionally fast, high resolution test processing
- Stable yet extremely responsive pressure/flow measurements

Absolute Pressure Transducer:

- Eliminates test variations from barometric pressure changes
- Uncertainty 0.05% full scale (all ranges)

Pressure Range:

- Standard from vacuum to 500.0 psig
- Option above 500 psig

Standard Mass Flow Ranges:

- Standard ranges from 0.5 to 3,000 sccm
- Above 3,000 sccm available
- Uncertainty 0.5% full scale (standard ranges)

Transducer Verification/Recertification:

- Easy pressure or flow transducers
- 6-point standard pressure calibration
- 2-point standard flow calibration

Available Pneumatic Manifolds - Optimization

- Standard flow
- Low volume
- High flow

Test Ports

- Standard single test port
- Dual, triple and quad test ports available for sequential or zone specific testing

Test Ports:

- Choice of:
- 1/4" FNPT or 3/8" FNPT
- Other sizes available



Pressure Control

- Standard high precision manual regulators
- Two standard regulators for mass flow
- Select up to two precision electronic regulators for automatic pressure changes unique to test part or test sequence
- Six point regulator Calibration
- Optional internal vacuum generator for vacuum applications

Units of Measure:

 All standard industrial units of measure are easily selectable per part program

Self -Test Functions:

- Internal leak detection process
- Program calibration verification

Leak Standards:

 Internal Leak Standard on the valve manifold for pressure decay with orifice configurations

TCP/IP and RS232 Communication Ports:

- 2-Way Telnet communication
- Test result data transmission with definable fields
- Pressure streaming for curve storage
- Email of reports, test data ,and alerts
- Barcode unique part identification

USB Port:

- Backup/Restore
- Cloning
- Report storage

Test result data storage & result synchronization

Automatic Calibration

- Easy to perform
- Permits manual edits if averaging multiple parts is required
- Calibrates to master part

Environmental Drift Correction:

 Automatically maintains calibration accuracy to compensate for changes in environmental conditions including temperature

Quik Test Function:

- Shortens test cycle when it is obvious and imminent the monitored pressure curve will result in a reject or accept
- Analyzes test results in real time
- Provides projected final test results

24 Volt Digital Inputs/Outputs

- 12 User configurable inputs
- 12 User configurable outputs
- Tooling control up to five tooling motions with feedback - eliminates the need for a PLC in some cases

Key or Password Security:

• Select menu items to secure or unsecure

Standard Selectable Menu Languages:

- English
- Spanish
- Chinese
- Korean
- Portuguese

Help Button:

- On-screen popup help window
- Minimizes dependency on the manual



Data Management & Storage:

- More than 5,000 tests stored on internal memory
- Infinite Expandable Storage Via USB
- Statistic Data Tracking
- Tracks Percent of Accept and Rejects
- Provides Average Accept and Reject
- Standard Deviation on Accepts
- Allows definable Sample Size
- Resettable counters:
- Test Results Including Malfunction
- Data Viewable on Display

3-Color Light-Bar Indicator:

- Unique panel mounted light indicators provides clear feedback of each test
- Eliminates stack lights
- White: In TestGreen: AcceptRed: Reject
- Adjustable brightness
- Adjustable lighting duration:

Compact Enclosure Design:

Dimensions: 9.25" high x 12" wide x 8.75" deep

Utility Requirements:

- Electrical: 90-260VAC, 50/60 Hz
- Pneumatic:
 - Pressure Input = 20 psig above maximum test pressure, clean dry compressed air or nitrogen
 - Pilot Input (if required) = 60 psig, clean dry compressed air or nitrogen