

AF-2220

Advanced Flow Tester Model Incorporates
Powerful New Features!



AF-2220 COSMO AIR FLOW TESTER

AIR FLOW TESTER

Quick Test Feature

Reduces production cycle times significantly by quickly checking for large leaking parts.

Mastering Compensation Feature

This feature compensates for environmental changes, facilitating fast and highly accurate testing.

Highly Durable Air-Operated Valves

Cosmo's dedicated air-operated valves ensure consistent measurement and a high degree of test durability.

Intelligent Pressure Control

Allows accurate flow measurement at various pressure settings.

Noise Reduction Feature

This feature reduces the false rejection of good parts.

Adjustable Readout Units

Set the readout in desired units of measure: mL/min, L/min, mL/s, and L/s.

Multi-Channel Feature

32 independent channels allow for multiple test parameter settings for multiple product testing.

Backward Compatibility

The AF-2220 is completely compatible with Cosmo models AF-2200N and above.

MAJOR FEATURE SUMMARY

| | |
|--------------------------|---|
| Calibration Port | Calibration port on back of tester allows for easy verification of accurate measurement by use of a certified leak orifice. |
| RS-232 (standard) | Allows test data to be downloaded to a PC for data management. |
| Dual I/O Ports | Standard I/O (extended feature) and compatible I/O allow for compatibility with older Cosmo models, AF-2200N and higher. |
| Built-in Pressure Sensor | Allows for constant test pressure measurement throughout the flow test. Adjustable HI/Lo limit settings |

MODEL CLASSIFICATIONS

AF-2220-①

| Test Pressure Selection | Regulator | Symbol ① | Pressure Range | Pressure Sensor | |
|-------------------------|---------------------|----------|----------------|-----------------|-----------------|
| | Precision Regulator | L05 | | 5 ~ 50 kPa | PT103B (50 kPa) |
| | | L | | 8 ~ 80 kPa | SMC 100 kPa |
| | | M | | 30 ~ 700 kPa | SMC 1 MPa |
| | | V | | -10 ~ -70 kPa | SMC -100 kPa |

OPTIONAL SPECIFICATIONS

| Option Type | Symbol | Description |
|-----------------------|--------|--|
| Bypass | B | External Bypass Read |
| | B1 | Internal bypass |
| Exhaust | G | External Exhaust Manifold Ready |
| | G1 | Internal Exhaust |
| Quick Charge | F | Quick charge ready (pilot outlet) |
| Flow Gain | C | Secondary flow measurement (flow gain) |
| Display Units | UX1 | SI units only |
| | UX2 | Non-SI units |
| I/O Options | S | PNP option (NPN is standard) |
| Mist Separator Option | A | Auto drain mist separator |
| 7-Segment LED | D | Secondary LED Flow Display |
| Power Options | VA | 100 ~ 125 VAC |
| | VE | 200 ~ 250 VAC |

LFE SPECIFICATIONS

| Flow Tube Size | Pressure Range | Vacuum Range |
|---|------------------|-------------------|
| 10mL, 20mL, 50mL, 100mL, 200mL, 500mL, 1L, 2L | 10 kPa ~ 800 kPa | -10 kPa ~ -70 kPa |
| 5L, 10L, 20L | 10 kPa ~ 700 kPa | -10 kPa ~ -70 kPa |
| 30L | 10 kPa ~ 700 kPa | N/A |
| 50L, 100L | 10 kPa ~ 500 kPa | N/A |

OPTIONAL EQUIPMENT

The following equipment is available upon request.

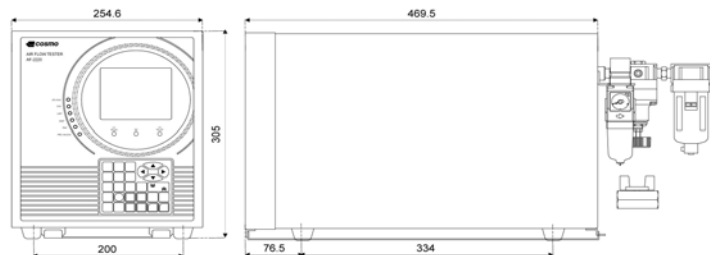
| | |
|--------------------------|-----------------------|
| External Exhaust Valve | G Series |
| Leak Master | LM-1B or LM-1E Series |
| External Bypass Manifold | BU-Series |
| Remote Controller | RC Series |



SPECIFICATIONS

| | | |
|--|---|---|
| Reading Range | Reading Range | 10 mL/min ~ 100 L/min (sized by LFE) |
| | Reading Accuracy | ± 1.5% of full scale ± 1 count |
| | Minimum Reading | 0.1 Pa differential pressure drop across the LFE |
| | Sensor Proof Pressure | 5.0 MPa (DPS) |
| Display Digit | 3 digits (floating point) | |
| Display Sampling Time | 100 ms | |
| Display Units | Test Pressure | kPa, MPa, mmH ₂ O, psi, kg/cm ² , bar, mbar, mmHg, cmHg, inHg |
| | Flow Rate | mL/min, L/min, L/sec, mL/sec |
| Laminar Flow Tube Selections | 10, 20, 50, 100, 500 (mL/min) 1, 2, 5, 10, 20, 30, 50, 100 (L/min) | |
| Number of Channels | 32 (CH # 00-31) | |
| Timer Settings | 0.0 to 999.9 seconds | |
| Hardware | 16-bit CPU | |
| Power Supply | 100 to 240V AC ±10% at 50/60Hz, 100VA max | |
| Test Pressure Source | Clean air with pressure sufficiently higher than the test pressure | |
| Pilot Pressure Source | Clean air regulated from 400~700 kPa | |
| Tubing Port Inner Diameter | Rc 1/4" Test pressure source Rc 1/2" WORK and CAL ports Rc 1/4" Pilot pressure source | |
| Ambient Temperature | Operating Temp: 5 to 45°C Storage Temp: -20 to 60°C | |
| Ambient Humidity | 80% RH or less, no condensation | |
| Weight | Approx. 17 kg | |
| Serial Communications Port (RS-232C) Output format is selectable | ID Format (default) | Flow rate data and test parameters (fixed length) |
| | I Format | |
| | T Format | Flow rate data (fixed length) |
| | Printer Format | Flow rate data and a list of test parameters |
| Control I/O | DB-37 pin male connector NPN open-collector output, photocoupler input | |
| Standard Accessories and Components | Filter regulator for pilot pressure, connectors for interface ports, power cord (125V, 3M), mounting brackets, inspection record, and operations manual | |
| Optional Accessories | 5M power cord, high-voltage power cord (withstands voltage 250 AC max 2m), fitting for cal port, traceability certificate | |

EXTERNAL APPEARANCE



<http://www.cosmo-k.co.jp/english>

(Japan) Cosmo Instruments Co., Ltd. (HQ-Tokyo)
 (China) Cosmo SHANGHAI Office
 Cosmo TIANJIN Office
 Cosmo GUANGZHOU Office
 Cosmo CHONGQING Office
 Cosmo CHANGCHUN Office
 Cosmo INDIA Liaison Office
 (Korea) Cosmo Korea Co., Ltd.
 (Taiwan) Diafriend Corporation
 (Malaysia) Wave Electronics & Electrical System Sdn. Bhd.
 (Indonesia) Wave Electronics - Indonesia Rep. Office
 (Thailand) Cosmowave Technology Co., Ltd.
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