

DPM4

Parameter Tester



Technical Data

The versatile DPM4 tests and calibrates flow and pressure generators used in many medical devices. With several measurements combined in a single, handheld device, the DPM4 provides a cost-effective solution, eliminating the need for multiple test meters.

The DPM4 features a menu-driven interface for simple operation and an easy-to-read screen that displays multiple parameter measurements simultaneously.

Built-to-order, the palm-sized device comes in four models to meet the varied needs of biomedical engineers and technicians – the 1G, 1H, 2G, and 2H. All models measure differential pressure, vacuum, and temperature. Models 2G and 2H feature a built-in barometer and measure barometric pressure, flow, and humidity. The G and H models vary according to pressure measurement ranges. The 1G and 2G models measure pressure in the -700 mmHg to 5000 mmHg range, and the 1H and 2H models measure pressure in the -350 mmHg to 350 mmHg range. All the devices provide highly accurate test results.

Key Features

All models

- Palm size
- High accuracy
- Differential pressure, vacuum, and temperature measurements
- Multiple user-selectable units of measurement
- Simultaneous display of multiple parameter measurements
- Leak-detection/leak-rate calculation
- RS232 for computer control

Model 1G

- Pressure measurements in -700 mmHg to 5000 mmHg range

Model 1H

- Pressure measurements in -350 mmHg to 350 mmHg range

Model 2G

- Barometric pressure, flow, and humidity measurements
- Pressure measurements in -700 mmHg to 5000 mmHg range

Model 2H

- Barometric pressure, flow, and humidity measurements
- Pressure measurements in -350 mmHg to 350 mmHg range

Technical Specifications

Pressure Measurement

Model 1H or 2H

Operating Range: -350 mmHg to 350 mmHg

Accuracy: 0.1 % of reading \pm 1 LSD

Resolution: 0.1 mmHg

Units of Measure: mmHg, mBar, cmH₂O, psi, InHg, InH₂O, kgcm², and kPa

Model 1G or 2G

Operating Range: - 700 mmHg to + 5000 mmHg

Accuracy: \pm 0.15 % of range for temperatures from 21 °C to 25 °C and relative humidity from 30 % to 70 % \pm 0.15 % of range; 0.02 % of

range per degree C for temperatures < 21 °C or >25 °C with relative humidity from 30 % to 70 %

Resolution: 0.5 mmHg

Units of Measure: mmHg, mBar, cmH₂O, psi, InHg, InH₂O, kgcm², and kPa

Temperature Measurement

Operating Range: -328 °F to 1382 °F (-200 °C to + 750 °C)

Accuracy: 1 % of reading

Resolution: 0.1 °F and °C

Units of Measure: °F and °C

Use standard external temperature probe type

PT-100 or PT-1000 (DIN/IEC 751 Class A) for

temperature measurements in °F or °C.

Temperature Probe PT-100

Operating Range: -328 °F to 1382 °F (-200 °C to 750 °C)

Accuracy: 0.23 °F at 212 °F (0.13 °C @ 100 °C);

0.18 °F @ 32 °F (0.1 °C @ 0°C); 0.36 °F @ 212 °F (0.2 °C @ 100 °C)

PT-1000 Operating Range: -328 °F to 1382 °F (-200 °C to 750 °C)

Accuracy: 0.5 °F (0.3 °C) barometric pressure

Model 2G or 2H

Note: It is possible to compensate for the sea level and calibrate for offsets.

Operating Range: 380 mmHg to 900 mmHg

Accuracy: 2 % of reading

Resolution: 1 mmHg

Units of Measure: mmHg, mBar, InHg, and hPa

Gas Flow Model 2G or 2H

Note: Gas flow measures with an embedded sensor with 11 calibration points to compensate non-linearity: calibration constants are stored in firmware.

Operating Range: -750 ml/min to 750 ml/min

Accuracy: 1 % of range or 5 % of reading

Resolution: 0.1 ml/min

Compatibility: Gas: Air, N₂, O₂, CO₂, H₂, and He

Units of Measure: ml/min (or SCCM

- Standard Cubic Centimeters per Minute)

Relative Humidity Model 2G or 2H

Note: An integrated sensor in the instrument determines relative humidity measurements.

Operating Range: 0 % RH to 100 % RH

Accuracy: 3.5 % @ 77 °F (25 °C)

Resolution: 1 % RH

Gas Compatibility: Air

Units of Measure: % RH

Controls

LCD graphic display, 128 x 32 pixels

Data Input/Outputs: 1; bidirectional

RS232 for computer control

Power

9 V alkaline battery RG9 or battery

eliminator

Power Consumption

< 70 mA

Battery Life

> 7 hours

Case

ABS plastic case

Dimensions

6.1 in L x 3.7 in W x 1.3 in H

(156 mm L x 94 mm W x 34 mm H)

Weight

0.9 lb with battery (0.4 kg)

Temperature

Operating: 59 °F to 95 °F (15 °C to 35 °C)

Storage: 32 °F to 122 °F (0 °C to 50 °C)

FLUKE®

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Ordering Information

Model

2583121: DPM4 Parameter Tester Model 1H

2631330: DPM4 Parameter Tester Model 1G

2637760: DPM4 Parameter Tester Model 2H

2637772: DPM4 Parameter Tester Model 2G

Standard Accessories

2572323: User/service manual

2462177: Soft-sided carrying case

2461946: Tubing kit

Optional Accessories

2647372: BE-UNVSL-IEC20C14 battery eliminator

2461910: PT-100 temperature probe

2461922: PT-1000 temperature Probe

2461905: Expansion chamber

2461946: Tubing kit w/Inflation bulb

2462335: RS232 cable (optional)

About Fluke Biomedical

Fluke Biomedical is the world's leading manufacturer of quality biomedical test and simulation products. In addition, Fluke Biomedical provides the latest medical imaging and oncology quality-assurance solutions for regulatory compliance.

Today, biomedical personnel must meet the increasing regulatory pressures, higher quality standards, and rapid technological growth, while performing their work faster and more efficiently than ever. Fluke Biomedical provides a diverse range of software and hardware tools to meet today's challenges.

Fluke Biomedical Regulatory Commitment

As a medical device manufacturer, we recognize and follow certain quality standards and certifications when developing our products. We are ISO 9001 certified and our products are:

- FDA Compliant
- CE Certified, where required
- NIST Traceable and Calibrated
- UL, CSA, ETL Certified, where required

Fluke Biomedical.

Better products. More choices. One company.

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