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
- RS-232 for computer control
- Peak test function to capture peak pressure

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

Model 2H
- Barometric pressure, gas 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: ± 0.3 % of range
Resolution: 0.1 mmHg
Units of measure: mmHg, mBar, cmH₂O, psi, InHg, lnH₂O, kg/cm², and kPa

Model 1G or 2G
Operating range: -700 mmHg to 5000 mmHg
Accuracy: ± 0.3 % of range for temperatures from 21 °C to 25 °C and relative humidity from 30 % to 70 % ± 0.3 % 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, lnH₂O, kg/cm², and kPa

Temperature measurement

Operating range
-40 °C to 200 °C (-40 °F to 392 °F)
Accuracy
± 2 % of reading, + 0.5 °C
Resolution
0.1 °C and °F
Units of measure
°C and °F

Temperature Probe PT-100 and PT-1000
PT-100 operating range
-200 °C to 750 °C
(-328 °F to 1382 °F)
Accuracy
± 0.13 °C @ 100 °C
(0.23 °F at 212 °F);
± 0.1 °C @ 0 °C
(0.18 °F @ 32 °F);
± 0.2 °C @ 100 °C
(0.36 °F @ 212 °F)
PT-1000 operating range
-200 °C to 750 °C
(328 °F to 1382 °F)
Accuracy: 0.3 °C (0.5 °F)

Model 2G or 2H
Note: It is possible to compensate for sea level and calibrate for offsets
Operating range
380 mmHg to 825 mmHg
Accuracy
± 2 % of reading
Resolution
1 mmHg
Units of measure
mmHg, mBar, lnHg, 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 ± 6 % of reading
Resolution
0.1 ml/min
Compatibility
Gas: Air, N₂, O₂, CO, NO, CO₂, H₂, and NO₂
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
12 % RH to 95 % RH
Accuracy
± 3.5 % of reading ± 2 % @ 25 °C (77 °F)
Resolution
0.1 % RH

Gas compatibility
Air
Units of measure
% RH

Controls
LCD graphic display, 128 pixels x 32 pixels

Data input/outputs
1; bidirectional RS-232 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 (LxWxH)
156 mm x 94 mm x 34 mm
(6.1 in x 3.7 in x 1.3 in)

Weight
0.4 kg with battery (0.9 lb)

Temperature
Operating
15 °C to 35 °C (59 °F to 95 °F)
Storage
0 °C to 50 °C (32 °F to 122 °F)
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. Highly credentialed and equipped with a NVLAP Lab Code 200566-6 accredited laboratory, Fluke Biomedical also offers the best in quality and customer service for all your equipment calibration needs.

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 test device manufacturer, we recognize and follow certain quality standards and certifications when developing our products. We are ISO 9001 certified and our products are:
- NIST Traceable and Calibrated
- UL, CSA, ETL Certified, where required
- NRC Compliant, where required

Ordering information

2583121 DPM4 Parameter Tester Model 1H
(± 350 mmHg)
2631330 DPM4 Parameter Tester Model 1G
(-700 to 5000 mmHg)
2637760 DPM4 Parameter Tester Model 2H
(± 350 mmHg, Press, Temp, Flow, RH)
2637772 DPM4 Parameter Tester Model 2G
(-700 to 5000 mmHg, Press, Temp, Flow, RH)

Standard accessories

2572323 User Manual
2547372 Battery Eliminator
XXXXXXX Power Cord (country specific)
XXXXXXX One 9 Volt Alkaline Battery

Optional accessories

2462177 Soft-Sided Carrying Case
2461910 PT-100 Temperature Probe
2461922 PT-1000 Temperature Probe
2461905 Expansion Chamber
2461946 Tubing Kit w/Inflation Bulb
2462335 RS-232 Cable

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