

# PS410

## Patient Simulator

### Technical Data



The PS410 is a compact high-performance simulator for patient monitor testing.

This handheld device simulates a full range of cardiac rhythms and a wide variety of ECG conditions. It includes pacemaker simulation, 35 arrhythmia selections, and adult and pediatric normal-sinus rhythms.

Small enough to fit in a pocket, the handy PS410 weighs less than a pound and is easy to operate. Technicians simply connect the simulator to the device under test and use the PS410 keypad to enter the code presets. The simulator then transmits the selected preset simulations to the device.

### Key features

- Handheld
- 12-lead ECG simulation
- 12 arrhythmia selections
- Universal ECG jacks
- Auto sequencing of performance waveforms
- Battery operated
- PS410/DPM1B Bundle kit with custom carrying case for quick ECG/NIBP patient monitor testing

## Specifications

Normal sinus rhythm (12-lead with independent outputs referenced to RL)		
Normal rate	80 BPM	
Selectable rates	30, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, and 300 BPM	
Accuracy	± 1 %	
Output impedance	940 Ω between leads	
ECG amplitudes	0.5, 1, and 2 mV	
Amplitude accuracy	± 2 % Lead II	
High-level output	1000x Lead II	
Adult or pediatric ECG waveform		
ECG performance (Lead II)		
Square wave	2, and 0.125 Hz	
Pulse	30, 60, and 120 BPM; 60 ms pulse width	
Sine waves	0.5, 5, 10, 40, 50, and 60 Hz (1 mV amplitude only, lead II)	
Triangle wave	2 Hz	
ST segment analysis		
Elevated or depressed	-0.6 mV to 6 mV in, 0.2 mV steps	
Pacemaker		
Pacemaker rhythm Pacer non-capture* Pacer non-function	Demand pacer with occasional sinus	Demand pacer with frequent sinus A-V sequential
Artifact selections		
50 Hz artifact 60 Hz artifact	Muscle artifact Baseline artifact	Respiration artifact
Arrhythmia selections		
PVC1 left ventricular focus* PVC1 early, LV focus* PVC1 R on T, LV focus* Pair of PVCs* Run of 5 PVCs* Run of 11 PVCs* Multi-focal PVCs* Frequent multi-focal PVCs* PVC2 right ventricular focus* PVC2 early, RV focus* PVC2 R on T, RV focus* Bigeminy	Trigeminy PVCs at a rate of 6 per minute PVCs at a rate of 12 per minute PVCs at a rate of 24 per minute Ventricular tachycardia Ventricular fibrillation Ventricular fibrillation 1/2 size Supraventricular tachycardia Premature atrial contraction* Premature nodal contraction* Asystole Missed beat*	Nodal rhythm Irregular rhythm Atrial flutter Atrial fibrillation Atrial fibrillation 1/2 size Atrial tachycardia First-degree block Second-degree block Third-degree block Right-bundle-branch block Left-bundle-branch block
*Event occurs once. To repeat, enter the selection again.		

General specifications		
Operation	Outputs are easily selected or adjusted using top-panel controls and the large two-digit numeric display	
Controls	Display	2-line LCD
	Control	6 control keys; ON/OFF power switch
Power	9 V battery/battery eliminator	
Housing	ABS plastic case	
Dimensions	11.3 cm L x 7 cm W x 3.4 cm H (6.1 in L x 3.7 in W x 1.3 in H)	
Weight	0.4 kg (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)

## Ordering information

### Item numbers/descriptions

**PS410** PS410 Patient Simulator

**PS410/DPM1B Bundle** PS410/DPM1B Bundle Kit (includes PS410, DPM1B, all accessories, and a custom carrying case)

### Standard accessories

**MANUAL** PS410 Users Manual (printed)

**CD-ROM** PS410 Users Manual (CD)

**BE-UNVSL-IEC320C14** Battery Eliminator 100 V ac to 240 V ac

9 V Battery



### Optional accessories

**17024** Universal Banana Adapter

**17191** Carrying Case, single pocket

**17192** Carrying Case, double pocket

### 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:

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

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