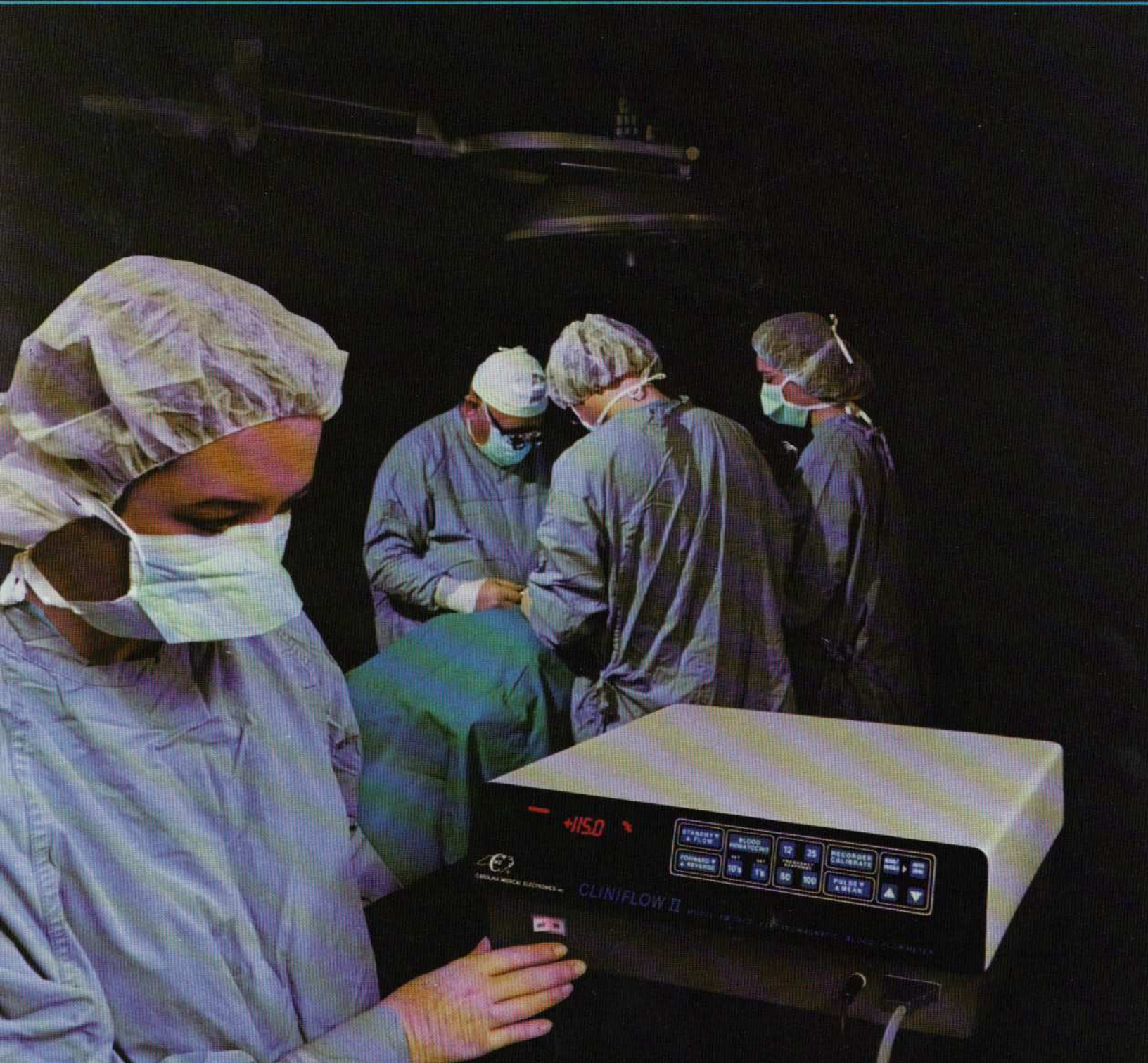


# CLINIFLOW II<sup>®</sup>

*Microprocessor based  
electromagnetic blood flowmeter*



# Model FM701D CLINIFLOW II

CLINIFLOW II is an all new, microprocessor based electromagnetic blood flowmeter designed specifically for vascular and cardio-thoracic applications. This is the system where accuracy, patient safety and simplicity of operation are paramount.

The CLINIFLOW II is a precision instrument that establishes new standards for accuracy and dependability with these features:

- Microprocessor based, digital signal processing for maximum performance and stability.
- Automatic non-occlusive zero.
- No warm-up time.
- Touch sensitive digital controls, no knobs or push buttons.
- Patient isolation. Preserved even when driving recorders.
- Fully autoranging probes with hematocrit correction.
- Simultaneous pulsatile and mean flow output
- Frequency response selectable up to 100Hz.
- Industry's widest range of precalibrated probes.

## Specifications

### ACCURACY

Electrical Zero  
Calibrate Signal  
Flowmeter Calibration Accuracy

Automatic zero for occlusive or non-occlusive zero reference.  
-1V to +1V in 0.1v steps @ 0.2 sec/step.  
±3% of full scale after a 5 second warm-up.  
(Includes the effect of gain and excitation variation.)  
±5mV after a 5 second warm-up.  
±1% maximum full scale.

DC Drift  
Linearity

### SAFETY

Patient Isolation  
Equipment Isolation  
Electrical Isolation

Isolated patient ground. <10µA RMS leakage @ 120V RMS.  
Breakdown >2500V RMS.  
External connections to recorders, etc. are optically isolated to preserve patient protection even when connected to external equipment.  
Designed to comply with UL544 specifications. No exposed, non-isolated metal surfaces available to the operator or patient.

### INPUT CHARACTERISTICS

Autoranging  
Probe Excitation  
Amplifier Input

Overall gain, full scale recorder output amplitude, flow rate range indicator and decimal point location are automatically programmed by the selected probe.  
450 or 475Hz square-wave, 0.5 Ampere ±1%.

Differential >30 megohm plus 50pF. CMRR ≥ or = 80dB @ 60Hz.  
Defibrillator protected.

### OUTPUT CHARACTERISTICS

Flow Range  
Gain  
Flow Indicator  
Outputs  
Frequency Response  
Output Noise

5 milliliters/mm to 19.99 liters/mm depending on probe selected.  
Automatically preset by the probe used.  
3½ digit red L.E.D. display, automatic calibration, automatic flow direction indicator.

PULSATILE: Single ended, ±10V (20Vp-p) full scale.  
MEAN: single ended, ±1.999V (4Vp-p) full scale.  
BOTH: capable of driving 1 kohm minimum load. Short circuit protected.  
Isolated from power or chassis ground.  
Front panel selectable, 3dB down @ 12Hz, 25Hz, 50Hz or 100Hz.  
PULSATILE: 110mv typical @ 100Hz response, 30mV typical @ 12Hz response.  
(Varies with the probe used and the frequency response setting.)  
MEAN: 5mV maximum.

### GENERAL

Power Requirements  
Operating Temperature  
Size and Weight  
Colors

80 Watts. 105-125V, 50 or 60Hz. (95-105V, 50 or 60Hz optional.)  
(200-240V, 50 or 60Hz optional.)  
12°C to 30°C (53.5° F to 86° F) Ambient.  
15.2 x 40.6 x 43.2cm HWD (6 x 16 x 17 in. HWD.)  
13.4 kg (29.5 lbs.)  
Cabinet is beige over charcoal. Front panel is black with light gray, blue and red labeling

Specifications subject to change without notice.

### LIMITED WARRANTY

The CME 700 Series is only sold subject to the terms of a Limited Warranty. This Limited Warranty contains important provisions restricting and limiting the seller's responsibilities and liabilities. The Limited warranty in its entirety appears within the preface of the Operation and Maintenance Instruction Manual. The Limited Warranty may also be obtained from our sales representatives or at our home office.

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