



Doppler Flow System

GAMMEX 1425A LE

The Gammex 1425A LE Doppler Flow System tests both Doppler and B-mode ultrasound systems using one uniquely designed unit. Gammex combines its low echo matrix with strategically placed line reflectors and anechoic cyst targets at 2, 4, and 6 mm depths. Two 5 mm vessels are incorporated into the system to meet with FDA Doppler sensitivity recommendations. One vessel is parallel to the scan plan at 2 cm, replicating a carotid artery. The other vessel descends 45 degrees from the surface to test Doppler sensitivity and to train different scanner techniques. All of this is combined with a flow controller

with microprocessor that has a range of 1 to 12.5 ml/sec within 3% FS accuracy. You can access five programmable test programs and five preset pulse flow patterns with the easy-to-use display panel. This allows for accurate reproducible testing time after time.

By combining the flow system, phantom, and electronic flow controller into a self-contained dual purpose Doppler Flow System, the Gammex 1425A LE is an excellent instrument for performing a multitude of functions. Scanner selection, quality control testing, training, and research can all be performed using this multi-faceted ultrasound tool.

continued



GAMMEX 1425A LE

ULTRASOUND

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All of the following quality indicators can be measured in real time:

- Maximum signal penetration
- Channel isolation or directional discrimination
- Registration accuracy of duplex sample gates and similarities between B-mode and color flow images
- Flow rate readout accuracy for various angles, beam directions and operating modes

The Gammex 1425A LE is not only one of the most versatile dual-purpose systems available, but it's completely portable as well. This makes our Doppler Flow System a must-have for your ultrasound quality control.

SPECIFICATIONS

Tissue Mimicking Material

Speed of sound . . . 1540 ±10 m/s

Attenuation 0.5 or 0.7 ±0.05 dB/cm/MHz

Targets

Cyst speed

of sound. 1540 ±10 m/s

Cyst attenuation. . . 0.05 ±0.01 dB/cm/MHz

Diameter of

nylon lines 0.1 mm (0.004 in)

Size tolerance . . . ±5%

Location

tolerance ±0.1 mm (0.004 in)

Vessels

Size. 5 mm diameter

Location 2 cm below surface;

2 to 16 cm at 40° angle

Blood Mimicking Fluid

Density 1.03 g/cc

Speed of sound . . . 1550 ±10 m/sec

Scatter size 4.7 micrometers average

Electronic Flow Control System

Constant

flow mode 1 to 12.5 ml/sec ±3%

Calculated

velocities 10-110 cm/sec

Pulsatile

flow mode 5 programmed waveforms

Container Size. . . . 40.6x24.8x40 cm

(16x9.75x15.75 in)

Weight. 10.4 kg (23 lbs)

All acoustic measurements at 4.5 MHz, 22°C