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KS215BP Ultrasound Pelvic Model

(Bladder Model - Standard Type)

The main function of the ultrasonic bladder scanner is to measure the volume or urine volume of the bladder. The accuracy of the measurement values is the primary technical requirement for this instrument, and the KS215BP model is the dedicated device for testing this performance. The essential part of this device is the background ultrasonic tissue (TM) material and the oval-shaped target embedded in it.

The TM material background contains an oval-shaped target with a shape and size similar to a pebble, with a volume ranging from 120 cm^3 to 140 cm^3 . The exact quantity value can be found in the random materials.

The long axis of the oval-shaped target is in the diagonal direction of the sound window, approximately parallel to the surface of the sound window.

The technical characteristics of the KS215BP bladder model follow the relevant medical industry standards, specifically:

1. Background (high echo area) TM material

(1) Sound speed: (1540 ± 10) m/s (23℃ ± 3℃)

(2) Sound attenuation coefficient slope: (0.5 ± 0.05) dB/(cm • MHz) (23℃ ± 3℃)

2. Oval-shaped target (no echo area) material

(1) Sound speed: (1540 ± 10) m/s (23℃ ± 3℃)

(2) Sound attenuation coefficient slope: < 0.05 dB/(cm • MHz) (23℃ ± 3℃)

3. Oval-shaped target volume:

Volume: 137 cm^3 , Axis length: 8.3 cm, Maximum diameter: 5.6 cm

KS215BP Ultrasound Model

(Bladder Model Replica, Customized Type; Customized type is generally considered to be in line with the technical requirements for pediatric bladder)

1. The TM material contains two targets of different sizes and elliptical shapes, with volumes of 20 cm^3 and 99 cm^3 respectively.

Volume: 99 cm^3 , Axial length: 6.7 cm, Maximum diameter: 5.3 cm

Volume: 20 cm^3 , Axial length: 3.9 cm, Maximum diameter: 3.1 cm

2. The long axis of the elliptical targets is in the width direction of the sound window, approximately parallel to the surface of the sound window.

3. TM material of the background (high echo area)

(1) Sound velocity: (1540 ± 10) m/s (23℃ ± 3℃)

(2) Sound attenuation coefficient slope: (0.5 ± 0.05) dB/(cm • MHz) (23℃ ± 3℃)

4. Material of the oval target (no echo area)

(1) Sound velocity: (1540 ± 10) m/s (23℃ ± 3℃)

(2) Sound attenuation coefficient slope: < 0.05 dB/(cm • MHz) (23℃ ± 3℃)