GSI 39

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

W x D x H: 12.5 in x 14.5 in x 4.7 in (31.75 cm x 36.83 cm x 11.94 cm)
Weight: 5 lb – unit and probe (2.27 kg)
Shipping W x D x H: 19.5 in x 22.5 in x 8.25 in (49.53 cm x 8.86 cm x 20.96 cm)
Shipping Weight: 13.1 lb (5.94 kg)

GSI 39 PROBE – 226 HZ PROBE TONE ONLY

TYMPANOMETRY AND REFLEX MODES

PROBE TONE

Frequency: 226 Hz +/- 2%
Intensity: 85.5 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%

COMPLIANCE

Range: 0.0 to 1.5 cm3 and 0.0 to 3.0 cm3
Accuracy: +/- 5% or +/- 0.1 cm3, whichever is greater

PRESSURE

Range: +200 to -400 daPa
Accuracy: +/- 10 daPa or 15%, whichever is greater, measured in 0.5 to 2.0 cc cavities
Sweep Rate: 600 daPa/sec, except near tympanogram peak where sweep rate slows to 200 daPa/sec to provide better definition of the peak compliance
Sweep Direction: Positive to negative
Gradient: Tymp pressure width at 50% of peak compliance
Test Time: Approximately 1 second

REFLEX

Frequencies: 500, 1000, 2000, and 4000 Hz
Accuracy: +/- 3%
Total Harmonic Distortion: < 5% (< 10% at 110 dB HL)
Rise/ Fall Times: 5 to 10 msec
Output Levels: 80 - 110 dB HL
Pressure: Automatically set to pressure at peak compliance with an offset of + or – 20 daPa depending on location of peak compliance
Test Time: 2 to 12 seconds

COMBO PROBE – 226 HZ AND 1 KHZ PROBE TONES

TYMPANOMETRY AND REFLEX MODES

226 HZ PROBE TONE

Frequency: 226 Hz, 1000 Hz +/- 2%
Intensity: 85.5 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%

1 KHZ PROBE TONE

Frequency: 1 kHz Hz +/- 2%
Intensity: 75 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%

COMPLIANCE (226 HZ)

Range: 0.0 to 1.5 cm3 and 0.0 to 3.0 cm3
Accuracy: +/- 5% or +/- 0.1 cm3, whichever is greater

ADMITTANCE (1 KHZ ONLY)

Range: 0.0 to 5.0 mmho and 0.0 to 10.0 mmho
Accuracy: +/- 5% or +/- 0.3 mmho, whichever is greater

PRESSURE

Range: +200 to -400 daPa
Accuracy: +/- 10 daPa or 15%, whichever is greater, measured in 0.5 to 2.0 cc cavities
Sweep Rate: 600 daPa/sec slowing to 200 daPa/sec near tymp peak - 226 Hz only; 200 daPa/sec - 1 kHz only
Sweep Direction: Positive to negative
Gradient: Tymp pressure width at 50% of peak compliance (226 Hz only)
Test Time: 1 to 3 seconds

REFLEX (226 HZ PROBE TONE)

Frequencies: 500, 1000, 2000, and 4000 Hz
Accuracy: +/- 3%
Total Harmonic Distortion: <5% (<10% at 110 dB HL)
Rise/Fall Times: 5 to 10 msec
Output Levels: 80-110 dB HL
Step Size: 10 dB
Pressure: Automatically set to pressure at peak compliance with an offset of + or – 20 daPa depending on location of peak compliance
Test Time: 2 to 12 seconds

REFLEX (1 KHZ PROBE TONE)

Frequencies: 500, 2000, and 4000 Hz
Accuracy: +/- 3%
Total Harmonic Distortion: <5%
Rise/Fall Times: 5 to 10 msec
Output Levels: 80-100 dB HL
Step Size: 10 dB
Pressure: Automatically set to ambient pressure (0 daPa) for all tests

AUDIOMETRY MODE

FREQUENCIES

125, 250, 500, 750, 1000, 1500, 2000, 3000, 4000, 6000, and 8000 Hz
Accuracy: +/- 2%
Total Harmonic Distortion: < 2.5%
Rise/Fall Time: 20 to 50 msec

HEARING LEVEL RANGE

Air Conduction: -10 to 100 dB HL
Step size: 5 dB
Accuracy:
- 125 to 4000 Hz +/- 3 dB
- 6000 to 8000 Hz +/- 5 dB

Signal to noise: > 70 dB

TONE PRESENTATION:

Continuous: Steady on when Present bar is depressed
Pulsed: 2.5/ sec (200 msec ON, 200 msec OFF)
FM (frequency modulated or warble tone): +/- 5%, 5 Hz

PRINTER

4 inch thermal printer
Speed: 2 audiograms + 2 tymp/reflex (4 frequencies), < 1 minute

DISPLAY

240 x 64 graphical, monochrome LCD

STANDARD ACCESSORIES

Probe assembly (Standard - 226 Hz only or Combo - 226 Hz and 1 kHz)
Power module + power cord
Test cavity
Eartips
Printer Paper
User manual
Quick reference guide wall chart – 226 Hz
Contra phone; versions 2 and 3
DD 45 headset; versions 3 and 4
GSI Suite

ENVIRONMENTAL

Operating Temperature: +59° F (15° C) to +104° F (40° C)
Storage Temperature: -93° F (-69° C) to +149° F (65° C)
Operating Humidity: 15% to 95%
Operating Ambient Pressure: 98 kPa to 104 kPa

POWER

Universal, auto-ranging power supply: 100 to 240V +/- 10%; 50 to 60 Hz +/- 5 %; 16 W maximum while printing

QUALITY SYSTEM

Manufactured, designed, developed and marketed under ISO 13485 certified quality systems.

COMPLIANCE

TYMPANOMETRY AND REFLEX MODES

PROBE TONE

- **IEC/EN 60601-1** Medical Electrical Equipment Requirements for Safety
- **CSA C22.2 No.601-1-M90**
- **ANSI S3.39** Aural Acoustic Impedance Admittance (Type 3)
- **IEC 60645-5** Aural Acoustic Impedance/ Admittance (Type 3)
- **ANSI S3.6** Audiometers (Type 4)
- **IEC 60645-1** Pure Tone Audiometers (Type 4)

Specifications for Audiometers (Type 4)

- **PTB Certificate No. 15.11-94/53** Pure Tone Audiometers (Type 4)
- **GL2005-00014** Guidelines for Manual Pure-Tone Threshold Audiometry

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