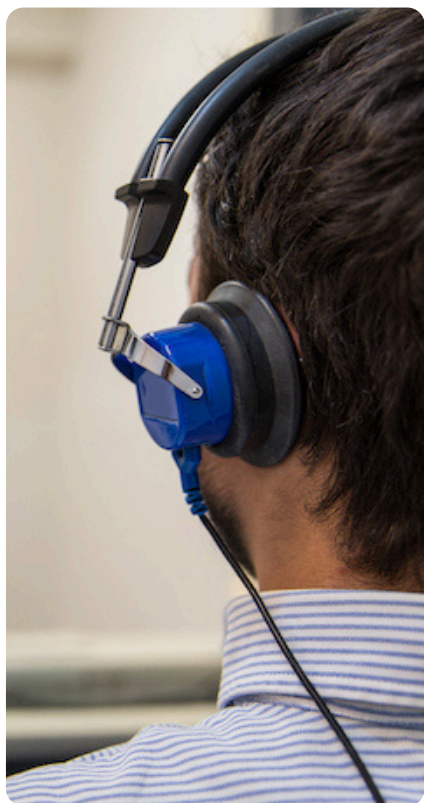Professional Hearing Solutions

Latest Hearing Aids

DATA SHEET

www.professionalhearingsolution.com

0332-5014111

Motion C&G X

Technical Data

Made for iPhone | iPad | iPod

| 7X | 5X | 3X | 2X | 1X | DX |

Earhook

- 60 dB / 133 dB SPL (2 ccm coupler)
- 67 dB / 138 dB SPL (ear simulator)

ThinTube 3.0

- 60 dB / 125 dB SPL (2 ccm coupler)
- 64 dB / 129 dB SPL (ear simulator)

ThinTube 3.0 P

- 63 dB / 126 dB SPL (2 ccm coupler)
- 68 dB / 131 dB SPL (ear simulator)

Data sheet also applicable for Motion C&G sDemo DX

Motion C&G X | Technical Data

| Type	Earhook	
	2 ccm coupler	**Ear simulator**
Output sound pressure level		
OSPL 90 at 1.6 kHz	–	137 dB SPL
OSPL 90 (Peak)	133 dB SPL	138 dB SPL
HFA-OSPL 90	125 dB SPL	–
Gain		
FOG at 1.6 kHz	–	63 dB
FOG (peak)	60 dB	67 dB
HFA-FOG	53 dB	–
Reference test gain	48 dB	56 dB
Frequency, noise and directivity		
Frequency range 7X 5X / 3X / 2X / 1X	120 - 7700 Hz 120 - 7700 Hz	940 - 7700 Hz 940 - 7700 Hz
Equivalent input noise	16 dB SPL	16 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	4 / 3 / 1 / 1 %	4 / 3 / 1 / – %
Tinnitus Function broadband	70 dB SPL	–
AI-DI	4.0 dB	
Latency	< 15 ms	
Inductive coil sensitivity		
MASL (1 mA/m) at 1.6 kHz	–	–
HFA MASL (1 mA/m)	–	–
HFA SPLITS (left/right)	–	–
RSETS (left/right)	–	–
HFA SPLIV	–	–
Battery		
Battery runtime (without streaming)	up to 24 h	
Battery runtime (incl. 5 h streaming)	up to 21 h	
IRIL IEC 60118-13:2016 Ed. 4.0		
700-960 MHz (rating)	user	
1400-2000 MHz (rating)	user	
2000-2700 MHz (rating)	user	
ANSI C63.19-2011		
800-950 MHz (rating)	M4	
1600-2500 MHz (rating)	M4	

Please find additional information to the values on page "Further Information".

Motion C&G X | Technical Data

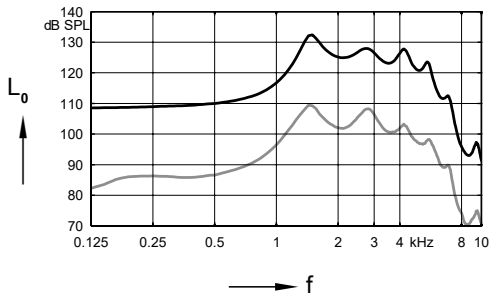| Type	ThinTube 3.0		ThinTube 3.0 P	
	2 ccm coupler	**Ear simulator**	**2 ccm coupler**	**Ear simulator**
Output sound pressure level				
OSPL 90 at 1.6 kHz	–	121 dB SPL	–	126 dB SPL
OSPL 90 (Peak)	125 dB SPL	129 dB SPL	126 dB SPL	131 dB SPL
HFA-OSPL 90	116 dB SPL	–	121 dB SPL	–
Gain				
FOG at 1.6 kHz	–	53 dB	–	59 dB
FOG (peak)	60 dB	64 dB	63 dB	68 dB
HFA-FOG	50 dB	–	56 dB	–
Reference test gain	39 dB	45 dB	44 dB	50 dB
Frequency, noise and directivity				
Frequency range 7X 5X / 3X / 2X / 1X	100 - 8100 Hz 100 - 8100 Hz	100 - 9500 Hz 100 - 8300 Hz	100 - 7200 Hz 100 - 7200 Hz	100 - 7400 Hz 100 - 7400 Hz
Equivalent input noise	18 dB SPL	19 dB SPL	15 dB SPL	17 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	2 / 1 / 1 / 1 %	4 / 2 / 2 / – %	3 / 1 / 1 / 1 %	4 / 3 / 1 / – %
Tinnitus Function broadband	70 dB SPL	–	70 dB SPL	–
AI-DI	4.0 dB		4.0 dB	
Latency	< 15 ms		< 15 ms	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	–	–	–	–
HFA MASL (1 mA/m)	–	–	–	–
HFA SPLITS (left/right)	–	–	–	–
RSETS (left/right)	–	–	–	–
HFA SPLIV	–	–	–	–
Battery				
Battery runtime (without streaming)	up to 24 h		up to 24 h	
Battery runtime (incl. 5 h streaming)	up to 21 h		up to 21 h	
IRIL IEC 60118-13:2016 Ed. 4.0				
700-960 MHz (rating)	user		user	
1400-2000 MHz (rating)	user		user	
2000-2700 MHz (rating)	user		user	
ANSI C63.19-2011				
800-950 MHz (rating)	M4		M4	
1600-2500 MHz (rating)	M4		M4	

Please find additional information to the values on page "Further Information".
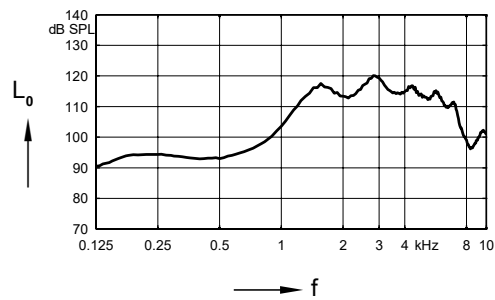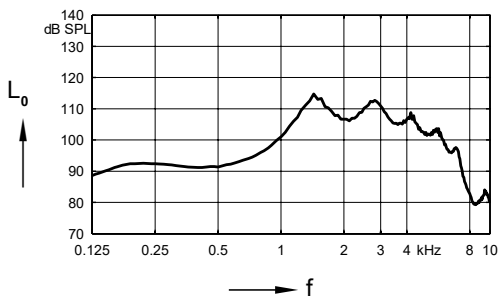
Motion C&G X │ Fitting Range

■		ThinTube 3.0 + Eartip 3.0 Open
■ + ■		ThinTube 3.0 P + Sleeve 3.0 Power
■ + ■ + ■		Earhook + Mold
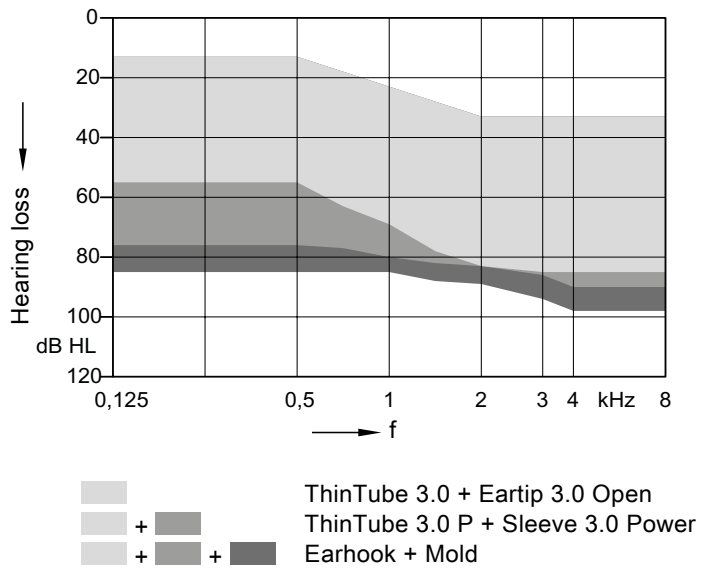
Earhook | Basic Data

2 ccm coupler

Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)

Frequency response (L_I = 60 dB)

Ear simulator

Max. Output sound pressure level (L_I = 90 dB)

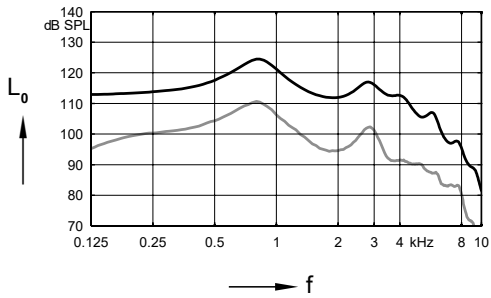**Full on gain (L_I = 50 dB)**

Basic acoustic response (L_I = 60 dB)
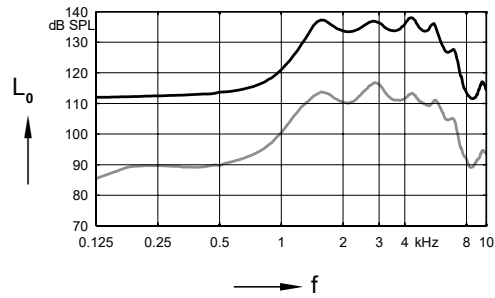
ThinTube 3.0 | Basic Data

2 ccm coupler

Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)
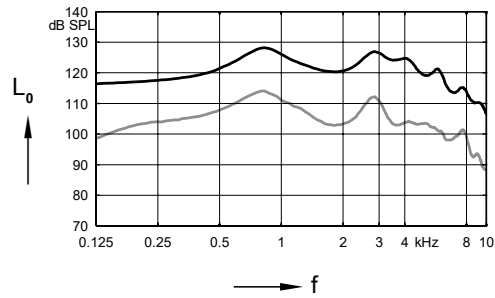
Frequency response (L_I = 60 dB)

Ear simulator

Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)
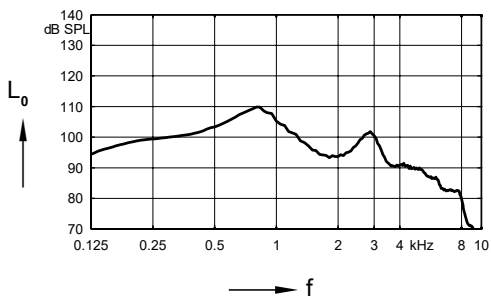
Basic acoustic response (L_I = 60 dB)

ThinTube 3.0 P | Basic Data
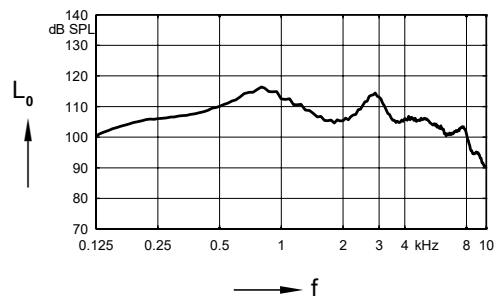
2 ccm coupler

Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)

Frequency response (L_I = 60 dB)

Ear simulator

Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)

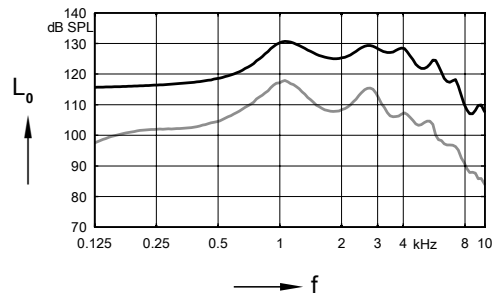**Basic acoustic response (L_I = 60 dB)**
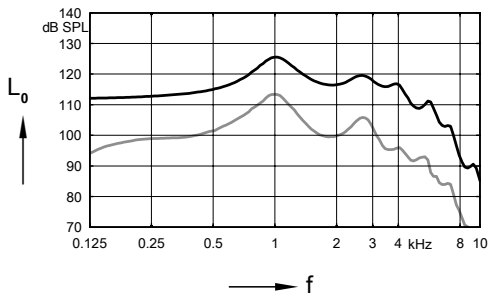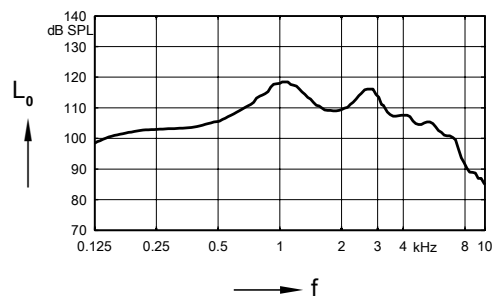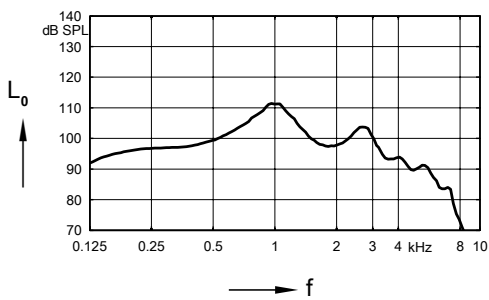
Motion C&G X | Features and Accessories

	7X	5X	3X	2X	1X
Dynamic Soundscape Processing	▪▪▪▪▪	▪▪▪▪▪	▪▪▪▪▪	▪▪▪▪	▪▪▪▪
OVP (Own Voice Processing) [1]	▪▪▪▪▪	▪▪▪▪▪	▪▪▪▪▪	—	—
Sound Clarity	▪▪▪▪▪	▪▪▪▪	▪▪▪	▪▪▪	▪▪
Signal processing (channels) / Gain&MPO (handles)	48 / 20	32 / 16	24 / 12	16 / 8	16 / 8
Hearing programs	6	6	6	4	4
Extended dynamic range	✓	✓	✓	✓	✓
Extended bandwidth	✓	—	—	—	—
EchoShield	✓	—	—	—	—
HD Music (presets)	3	3	1	1	—
eWindScreen [2]	Binaural	Binaural	Monaural	Monaural	—
Speech and noise management	✓	✓	✓	✓	✓
SoundSmoothing	✓	✓	✓	✓	—
Feedback cancellation	✓	✓	✓	✓	✓
Speech Quality	▪▪▪▪▪	▪▪▪▪	▪▪▪	▪▪	▪▪
Directionality (Automatic / Adaptive)	Binaural	Binaural	Binaural	✓	✓
Spatial SpeechFocus [1] [3]	✓	✓	—	—	—
TwinPhone [1]	✓	✓	✓	—	—
Frequency compression	✓	✓	✓	✓	✓
Wearer Interaction	▪▪▪▪▪	▪▪▪▪▪	▪▪▪▪	▪▪▪▪	▪▪▪▪
Signia App (iOS and Android)	✓	✓	✓	✓	✓
Spatial Configurator	✓	✓	—	—	—
Adaptive Streaming Volume [4]	✓	✓	✓	✓	✓
Direct Streaming	✓	✓	✓	✓	✓
Made for iPhone	✓	✓	✓	✓	✓
Tinnitus	✓	✓	✓	✓	—
Notched Amplification Therapy	✓	✓	✓	✓	—
Tinnitus noise therapy signal	✓	✓	✓	✓	—
Fitting	✓	✓	✓	✓	✓
Smart Optimizer and Data Logging	✓	✓	✓	✓	✓
Acclimatization manager	✓	✓	✓	✓	✓
InSituGram	✓	✓	✓	✓	✓
AutoFit	✓	✓	✓	✓	✓
TeleCare	✓	✓	✓	✓	✓
Remote Services	✓	✓	✓	✓	✓
Signia App	✓	✓	✓	✓	✓

[1] req. bilateral fitting
[2] Binaural used in dedicated programs for 5X
[3] for 5X, right / left directionality available only in Stroll Program and via the Spatial Configurator
[4] streaming only

▪▪▪▪▪ highest feature performance
✓ available — not available O optional

Motion C&G X │ Features and Accessories

	7X / 5X / 3X	2X / 1X
Style specific features		
Ingress Protection Rating	IP68	IP68
Charging contacts	—	—
Battery Size	—	—
Battery door on/off function	—	—
Nanocoated housing	✓	✓
e2e wireless 3.0	✓	✓
User controls coupling via e2e	✓	✓
Wireless programming	✓	✓
Instrument configurations		
Flat cover	—	—
Rotary volume control	—	—
Push button	—	—
Rocker switch	✓	✓
Color conversion kit	O	O
Color conversion kit with T-Coil	—	—
T-Coil	—	—
Battery door – child lock	—	—
Small earhook	O	O
Programming accessories		
ConnexxAir / ConnexxLink	— / —	— / —
Noahlink Wireless	O	O
Programming adapter / cable	—	—
Accessories		
Inductive Charger II	Mandatory	Mandatory
miniPocket	O	O
StreamLine TV	O	O
StreamLine Mic	O	O
CROS Pure 312 X	O	—
CROS Pure Charge&Go X	O	—
CROS Silk X	—	—

✓ available   — not available   O optional

Motion C&G X │ Further information

Abbreviations

The following abbreviations are used in this datasheet:

SPL   Sound Pressure Level
OSPL   Output Sound Pressure Level
HFA   High Frequency Average
FOG   Full-On Gain
MASL   Magneto Acoustical Sensitivity Level
SPLITS   Coupler SPL for an Inductive Telephone Simulator
RSETS   Relative Equivalent Telephone Sensitivity
SPLIV   SPL In a Vertical magnetic field
AI-DI   Articulation Index - Directivity Index
IRIL   Input Related Interference Level
RTF   Reference Test Frequency

Standards and additional information

▶ All measurements with the 2 ccm coupler were performed according to ANSI S3.22-2014 and IEC 60118-0:2015 if applicable.
▶ All measurements with an ear simulator were performed according to IEC 118-0/A1:1994 and to DIN 45605 (frequency range) if applicable.
▶ Curves and figures representing FOG are measured with 20 dB reduction and 70 dB SPL input level.
▶ Figures representing Equivalent Input Noise incorporate a moderate expansion.
▶ Tinnitus noiser measurement conditions: all tinnitus single frequency sliders in max position, master volume slider in default position (0 dB) and local volume control in default position.
▶ Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil only.
▶ The current consumption is measured in reference test setting (RTS) according to the applicable standards. Due to the settling behaviour of hearing instruments supporting RF (radio frequency), the battery current is measured 3 minutes after turning on (note: no pairing).
▶ The battery runtime is based on first fit settings using 60 % of the fitting range and an ISTS (International Speech Test Signal) input signal at 65 dB SPL (note: pairing established). The actual battery runtime is determined by battery quality, hearing loss, sound environment, usage and activated feature set. Regarding RF usage (Bluetooth streaming) two different conditions are considered.
▶ Extended bandwidth up to 12 kHz for 7X devices only.
▶ The following acoustic connections / ear pieces were used:
    – Earhook
    – ThinTube 3.0
    – ThinTube 3.0 P

Special note for instruments with built-in lithium-ion rechargeable battery

▶ The runtime of all lithium-ion rechargeable batteries reduces over time. The estimates are based on fresh lithium-ion rechargeable battery capacity. Under normal operating conditions, the battery will retain up to 80 % of its initial capacity after 2 years of use. Please note that battery performance will vary depending on individual usage patterns and environmental conditions.

Made for
 iPhone │ iPad │ iPod

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