

# Motion<sup>®</sup> 13 Nx

### **Technical Data**







#### Earhook

- 70 dB / 139 dB SPL (ear simulator)
- 63 dB / 134 dB SPL (2 ccm coupler)

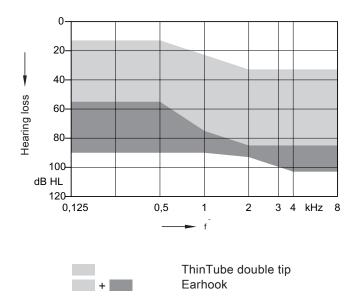
#### ThinTube

- 61 dB / 130 dB SPL (ear simulator)
- 56 dB / 126 dB SPL (2 ccm coupler)

## Motion 13 Nx | Technical Data

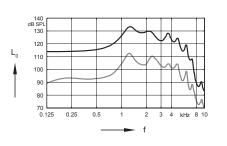
Туре	Earhook		ThinTube		
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	
Output sound pressure level					
at 1.6 kHz	_	137 dB SPL	-	123 dB SPL	
Peak	134 dB SPL	139 dB SPL	126 dB SPL	130 dB SPL	
HFA-OSPL 90	128 dB SPL	-	117 dB SPL	-	
Gain					
Full on gain (FOG) at 1.6 kHz	_	63 dB	-	53 dB	
Full on gain (Peak)	63 dB	70 dB	56 dB	61 dB	
HFA-FOG	55 dB	_	48 dB	-	
Reference test gain	51 dB	56 dB	40 dB	47 dB	
Frequency, noise and directivity					
Frequency range 7Nx 5Nx / 3Nx	100 - 7500 Hz 100 - 7500 Hz	640 - 7800 Hz 640 - 7800 Hz	100 - 7800 Hz 100 - 7800 Hz	110 - 8800 Hz 110 - 8100 Hz	
Equivalent input noise	16 dB SPL	16 dB SPL	18 dB SPL	18 dB SPL	
Total harmonic distortion at 500 / 800 / 1600 Hz	2/2/1%	3 / 2 / 1 %	1 / 1 / 2 %	1/2/3%	
Tinnitus therapy broadband	70 dB SPL	_	70 dB SPL	_	
AI-DI	4.0	4.0 dB		4.0 dB	
Inductive coil sensitivity					
MASL (1 mA/m) at 1.6 kHz	_	93 dB SPL	-	85 dB SPL	
HFA MASL (1 mA/m)	86 dB SPL	_	79 dB SPL	_	
HFA SPLITS (left/right)	110 / 110 dB SPL	_	100 / 100 dB SPL	_	
RSETS (left/right)	0 / 0 dB	_	0 / 0 dB	_	
HFA SPLIV	110 dB SPL	_	100 dB SPL	_	
Battery					
Battery voltage	1.3 V		1.3 V		
Battery current drain	1.4 mA	1.4 mA	2.0 mA	2.8 mA	
Battery life (cell zinc air)	~12	~126 h ~126 h		6 h	
Battery life (rechargeable)	-			-	
IRIL IEC 60118-13:2016 Ed. 4.0					
700-960 MHz (rating)	us	user		user	
1400-2000 MHz (rating)	us	user		user	
2000-2700 MHz (rating)	us	user		user	
ANSI C63.19-2011					
800-950 MHz (rating)	M4	M4 / T4		M4 / T4	
1600-2500 MHz (rating)	M4 / T4		M4 / T4		

### Motion 13 Nx | Fitting Range



### Earhook | Basic Data

#### 2 ccm coupler



Output sound pressure level (L<sub>1</sub> = 90 dB)

Full on gain (L = 50 dB)

#### 120 $L_0$ 110

Ear simulator

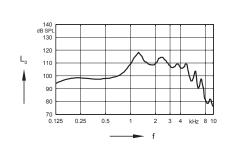
140 dB SPI 130

100 ١

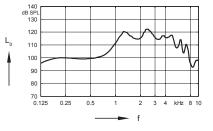
90

80 70 L

0.25 0.5



Frequency response (L<sub>1</sub> = 60 dB)



2 3 4 kHz 8

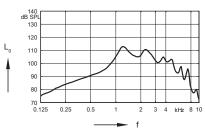
f

Output sound pressure level (L<sub>1</sub> = 90 dB)

Full on gain (L<sub>I</sub> = 50 dB)

Basic acoustic response (L = 60 dB)

#### Inductive response

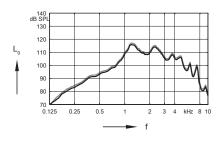


140 dB SPL 130 120 L, 110 100 l 90 80 70 L 3 4 kHz 8 10 0.25 0.5 1 2 f

Inductive response (H = 10 mA/m)

SPLIV curve

(H = 31.6 mA/m)



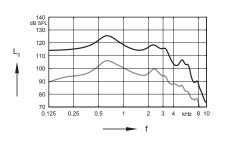
#### SPLITS curve left (H = 31.6 mA/m)

SPLITS curve right (H = 31.6 mA/m)



## ThinTube | Basic Data

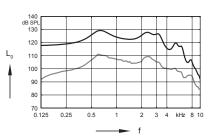
#### 2 ccm coupler



Output sound pressure level (L<sub>1</sub> = 90 dB)

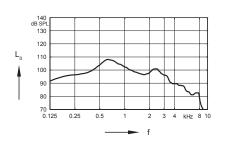
Full on gain (L<sub>I</sub> = 50 dB)

#### Ear simulator

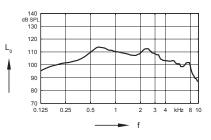


Output sound pressure level (L<sub>1</sub> = 90 dB)

Full on gain (L<sub>I</sub> = 50 dB)

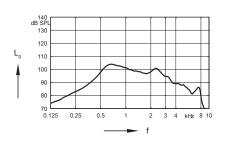


Frequency response (L<sub>1</sub> = 60 dB)



Basic acoustic response (L<sub>1</sub> = 60 dB)

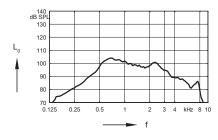
#### Inductive response



Inductive response (H = 10 mA/m)

SPLIV curve

(H = 31.6 mA/m)



#### SPLITS curve left (H = 31.6 mA/m)

SPLITS curve right (H = 31.6 mA/m)

### Motion 13 Nx | Features and Accessories

	7Nx	5Nx	3Nx
Audiology			
Own Voice Processing (OVP) <sup>1)</sup>			
3D Classifier			
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16	24 /12
Hearing programs	6	6	6
Sound Clarity			
HD Spatial	•	٠	•
Extended dynamic range	•	•	•
Extended bandwidth	•		
EchoShield	•		
HD Music (presets)	3	1	
eWindScreen binaural <sup>1) 2)</sup>	•	•	
eWindScreen	•	•	•
Noise Management			
Speech and noise management (steps)	7	5	3
SoundSmoothing (steps)	3	3	1
Directional speech enhancement (steps)	3	1	
Feedback cancellation	•	•	•
Speech Quality			
Directionality			
Narrow Directionality <sup>1)</sup>	•	•	•
Spatial SpeechFocus <sup>1) 3)</sup>	•	•	_
SpeechFocus	•	٠	_
TwinPhone <sup>1)</sup>	•	•	•
Frequency compression	•	•	•
Direct Streaming			
Made for iPhone	٠	•	•
Adaptive Streaming Volume 4)	•	•	•
Tinnitus			
Notched Noise Therapy	•	•	•
Tinnitus therapy	•	•	•
Fitting			
Smart Optimizer and Data Logging	٠	•	•
Acclimatization manager	•	•	•
Performance Guide	•	•	•
Insitugram	•	•	•
Learning (classes)	6	3	1
TeleCare			
TeleCare <sup>™</sup> 3.0	•	•	•
			·

<sup>1)</sup> req. bilateral fitting

• available • highest feature performance — not available

<sup>2)</sup> not available in the universal program on 5Nx

 $^{\scriptscriptstyle 3)}$  for 5Nx in Stroll Program or with Spatial Configurator only

<sup>4)</sup> streaming only

### Motion 13 Nx | Features and Accessories

	7Nx / 5Nx / 3Nx	
Style specific features		
Ingress Protection Rating	IP67	
Charging contacts		
Battery Size	13	
Battery door on/off function	•	
Nanocoated housing	•	
e2e wireless <sup>®</sup> 3.0	•	
Direct streaming	•	
User controls coupling via e2e	•	
Wireless programming	•	
Instrument configurations		
Flat cover	_	
Rotary volume control		
Push button		
Rocker switch	•	
Color conversion kit	0	
Battery door - integrated telecoil	0	
Battery door – child lock		
Small earhook	0	
Programming accessories		
ConnexxAir, ConnexxLink®		
Noahlink Wireless	•	
Programming adapter / cable	size 13	
Accessories		
miniPocket™	0	
StreamLine TV	0	
Apps		
myControl™ App	0	
touchControl™ App	0	

lacksquare available  $\bigcirc$  optional - not available

### Abbreviations and Standards

#### Abbreviations

The following abbreviations are used in this datasheet:

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 60118-7:2005 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.
- ▶ Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil battery door only.
- Tinnitus therapy 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.
- 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 life 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 life is determined by battery quality, hearing loss, sound environment, usage and activated feature set.
- ▶ The following acoustic connections / ear pieces were used:
  - Earhook
    - ThinTube
- Extended frequency range up to 12 kHz for 7Nx devices only.



"Made for iPhone" means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance.

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases and are subject to change without prior notice. The required features should therefore be specified in each individual case at the time of conclusion of the respective contract.

#### Legal Manufacturer

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### Marning

Choking hazard posed by small parts.

This instrument is not intended for the fitting of infants, children under 3 years and persons of mental incapacity.



#### Warning

Instrument has an output sound pressure level of 132 dB SPL or more.

Risk of impairing the residual hearing of the user.

► Take special care when fitting this instrument.