

Pure 10 Nx

Technical Data



S-Receiver

- 55 dB / 118 dB SPL (ear simulator)
- 45 dB / 108 dB SPL (2 ccm coupler)

M-Receiver

- 65 dB / 123 dB SPL (ear simulator)
- 55 dB / 113 dB SPL (2 ccm coupler)



P-Receiver

- 70 dB / 126 dB SPL (ear simulator)
- 60 dB / 118 dB SPL (2 ccm coupler)



HP-Receiver

- 72 dB / 130 dB SPL (ear simulator)
- 65 dB / 123 dB SPL (2 ccm coupler)

Pure 10 Nx | Technical Data

Type	S-Receiver		M-Receiver	
				
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
OSPL 90 at 1.6 kHz	–	108 dB SPL	–	116 dB SPL
OSPL 90 (Peak)	108 dB SPL	118 dB SPL	113 dB SPL	123 dB SPL
HFA-OSPL 90	102 dB SPL	–	107 dB SPL	–
Gain				
FOG at 1.6 kHz	–	44 dB	–	52 dB
FOG (Peak)	45 dB	55 dB	55 dB	65 dB
HFA-FOG	37 dB	–	44 dB	–
Reference test gain	25 dB	33 dB	30 dB	41 dB
Frequency, noise and directivity				
Frequency range 7Nx 5Nx / 3Nx / 2Nx / 1Nx	100-10000 Hz 100-8200 Hz	100-10500 Hz 100-8300 Hz	100-8700 Hz 100-8000 Hz	100-10000 Hz 100-8200 Hz
Equivalent input noise	19 dB SPL	22 dB SPL	19 dB SPL	22 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 1 / 1 / 1 %	1 / 1 / 2 / - %	1 / 2 / 1 / 1 %	2 / 3 / 2 / - %
Tinnitus noiser broadband	65 dB	–	70 dB	–
AI-DI	3.5 dB		3.5 dB	
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 voltage	1.3 V		1.3 V	
Battery current drain	1.2 mA	1.2 mA	1.3 mA	1.3 mA
Battery life (cell zinc air)	~ 65 h		~ 60 h	
Battery life (rechargeable)	–		–	
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	

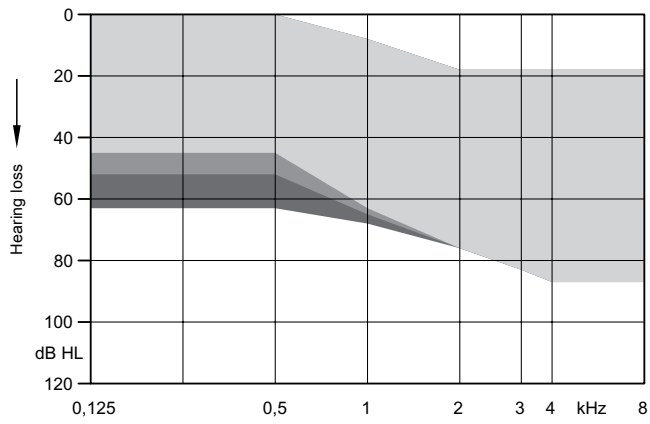
Pure 10 Nx | Technical Data

Type	P-Receiver		HP-Receiver	
				
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
OSPL 90 at 1.6 kHz	–	122 dB SPL	–	119 dB SPL*
OSPL 90 (Peak)	118 dB SPL	126 dB SPL	123 dB SPL	130 dB SPL
HFA-OSPL 90	112 dB SPL	–	115 dB SPL	–
Gain				
FOG at 1.6 kHz	–	61 dB	–	63 dB*
FOG (Peak)	60 dB	70 dB	65 dB	72 dB
HFA-FOG	51 dB	–	58 dB	–
Reference test gain	35 dB	47 dB	38 dB	44 dB*
Frequency, noise and directivity				
Frequency range 7Nx 5Nx / 3Nx / 2Nx / 1Nx	100-7800 Hz 100-7800 Hz	120-8500 Hz 120-8200 Hz	100-7400 Hz 100-7400 Hz	120-8200 Hz 120-8100 Hz
Equivalent input noise	19 dB SPL	22 dB SPL	15 dB SPL	18 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 2 / 1 / 1 %	1 / 2 / 1 / - %	1 / 1 / 1 / 1 %	2 / 2 / 1 / - %
Tinnitus noiser broadband	75 dB	–	85 dB	–
AI-DI	3.5 dB		3.5 dB	
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 voltage	1.3 V		1.3 V	
Battery current drain	1.2 mA	1.2 mA	1.2 mA	1.2 mA
Battery life (cell zinc air)	~ 60 h		~ 65 h	
Battery life (rechargeable)	–		–	
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	

* measured at 2.5 kHz RTF

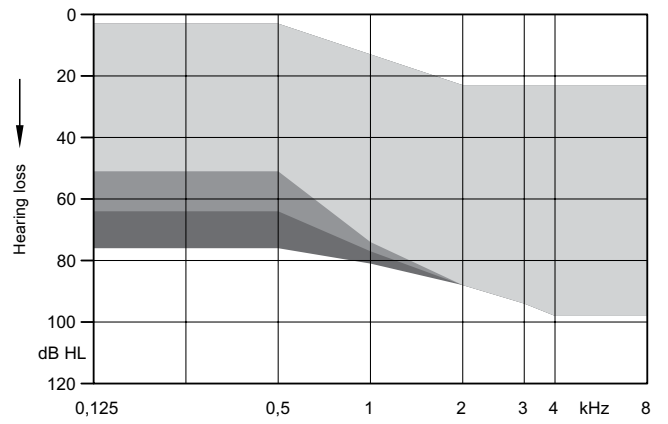
Pure 10 Nx | Fitting Range

S-Receiver



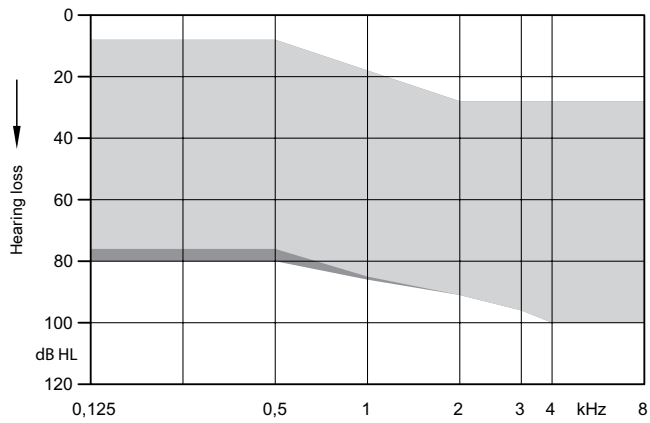
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

M-Receiver



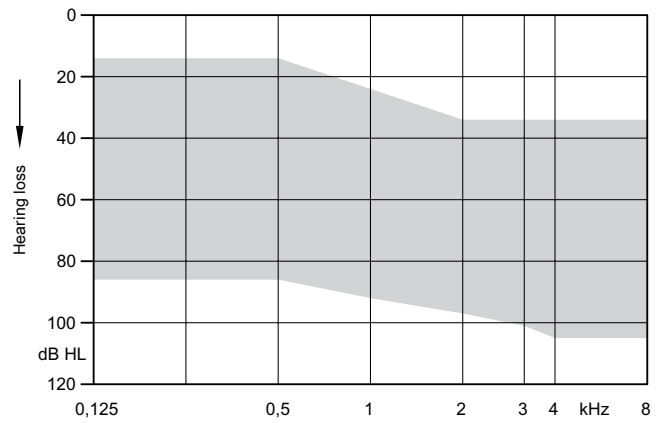
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

P-Receiver



Double Click Domes
 + Click Mold (no vent)

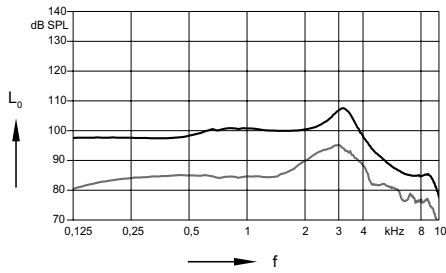
HP-Receiver



Custom Shell (no vent)

S-Receiver (Closed Click Dome) | Basic Data

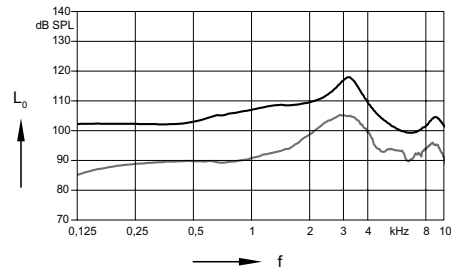
2 ccm coupler



Max. Output sound pressure level
($L_1 = 90$ dB)

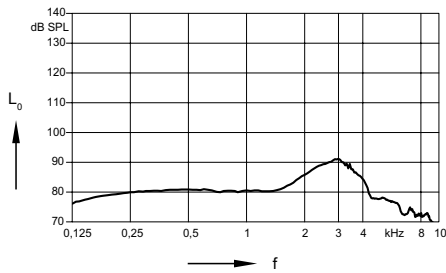
Full on gain
($L_1 = 50$ dB)

Ear simulator

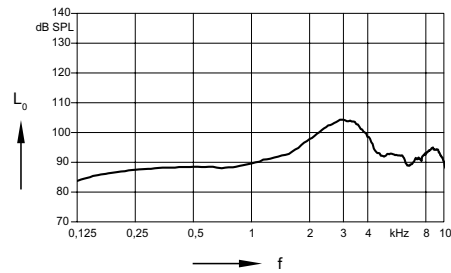


Max. Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)



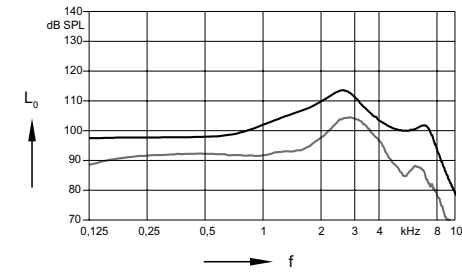
Frequency response
($L_1 = 60$ dB)



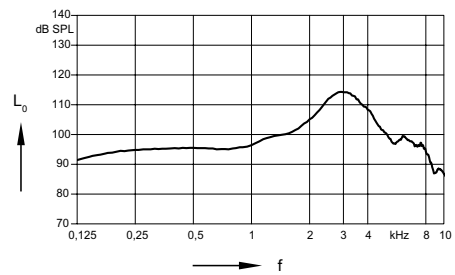
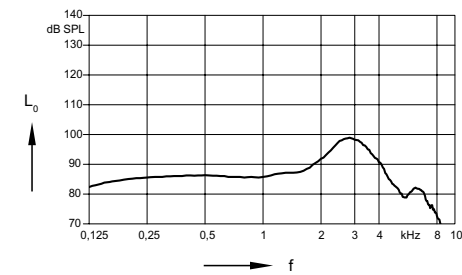
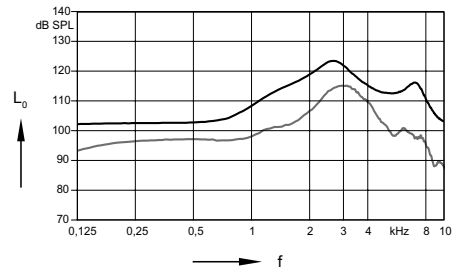
Basic acoustic response
($L_1 = 60$ dB)

M-Receiver (Closed Click Dome) | Basic Data

2 ccm coupler

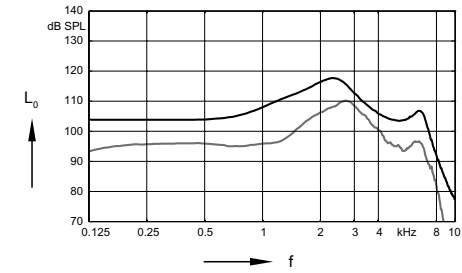


Ear simulator



P-Receiver (Click Mold) | Basic Data

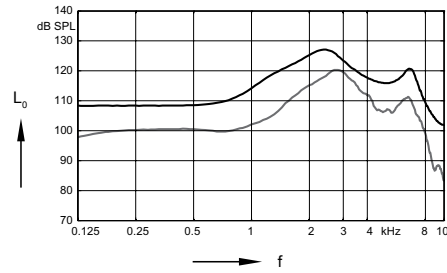
2 ccm coupler



Max. Output sound pressure level
(L₁ = 90 dB)

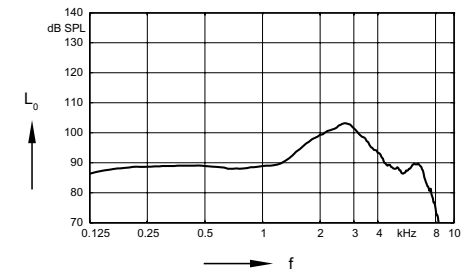
Full on gain
(L₁ = 50 dB)

Ear simulator

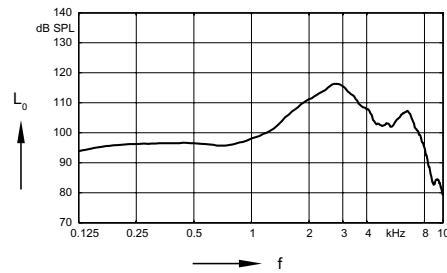


Max. Output sound pressure level
(L₁ = 90 dB)

Full on gain
(L₁ = 50 dB)



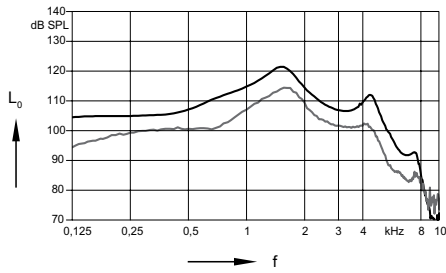
Frequency response
(L₁ = 60 dB)



Basic acoustic response
(L₁ = 60 dB)

HP-Receiver (Custom Shell) | Basic Data

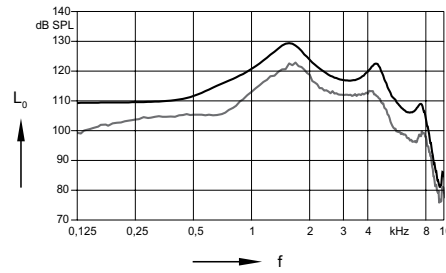
2 ccm coupler



Max. Output sound pressure level
($L_1 = 90$ dB)

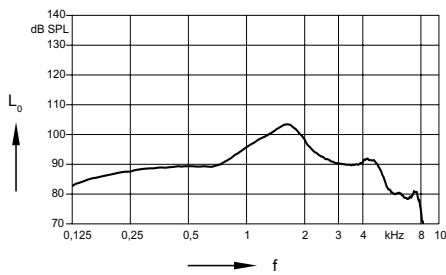
Full on gain
($L_1 = 50$ dB)

Ear simulator

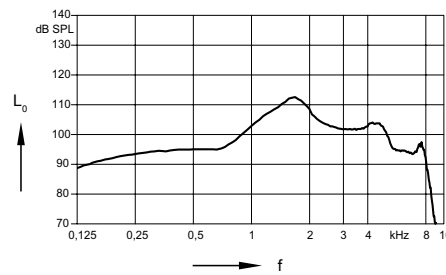


Max. Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)



Frequency response
($L_1 = 60$ dB)



Basic acoustic response
($L_1 = 60$ dB)

Pure 10 Nx | Features and Accessories

	7Nx	5Nx	3Nx	2Nx	1Nx
Audiology					
Own Voice Processing (OVP) ¹⁾	—	—	—	—	—
3D Classifier	—	—	—	—	—
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16	24 / 12	16 / 8	16 / 8
Hearing programs	6	6	6	4	4
Sound Clarity					
HD Spatial	—	—	—	—	—
Extended dynamic range	●	●	●	●	●
Extended bandwidth	●	—	—	—	—
EchoShield	●	—	—	—	—
HD Music (presets)	3	1	—	—	—
eWindScreen binaural ^{1) 2)}	—	—	—	—	—
eWindScreen	●	●	●	●	—
Noise Management					
Speech and noise management (steps)	7	5	3	3	1
SoundSmoothing (steps)	3	3	1	1	—
Directional speech enhancement (steps)	3	1	—	—	—
Feedback cancellation	●	●	●	●	●
Speech Quality					
Directionality (channels)					
Automatic Directionality	●	●	●	●	●
Narrow Directionality ¹⁾	—	—	—	—	—
Spatial SpeechFocus ^{1) 3)}	—	—	—	—	—
SpeechFocus	●	●	—	—	—
TwinPhone ¹⁾	—	—	—	—	—
Frequency compression	●	●	●	●	●
Direct Streaming					
Made for iPhone	—	—	—	—	—
Adaptive Streaming Volume ⁴⁾	—	—	—	—	—
Tinnitus					
Notched Noise Therapy	●	●	●	—	—
Tinnitus noiser	●	●	●	●	—
Fitting					
Smart Optimizer and Data Logging	●	●	●	●	●
Acclimatization manager	●	●	●	●	●
Performance Guide	●	●	●	●	●
Insitugram	●	●	●	●	●
Learning (classes)	6	3	1	—	—
TeleCare					
Basic Remote Tuning	●	●	●	●	●
Full Live Remote Tuning	—	—	—	—	—

¹⁾ req. bilateral fitting

²⁾ not available in the universal program on 5Nx

³⁾ for 5Nx in Stroll Program or with Spatial Configurator only

⁴⁾ streaming only

● available ■■■■■ highest feature performance — not available

Pure 10 Nx | Features and Accessories

7Nx / 5Nx / 3Nx / 2Nx / 1Nx

Style specific features

Ingress Protection Rating	IP68
Charging contacts	—
Battery Size	10
Battery door on/off function	●
Nanocoated housing	●
e2e wireless 3.0	—
User controls coupling via e2e	—
Wireless programming	—

Instrument configurations

Flat cover	●
Push button	○
Rocker switch	—
Color conversion kit	○
Battery door – integrated telecoil	—
Battery door – child lock	—
Small earhook	—

Programming accessories

ConnexxAir / ConnexxLink	— / —
Programming adapter / cable	size 10

Accessories

miniPocket	○
CROS Silk Nx	—
CROS Pure 312 Nx	—
CROS Pure Charge&Go Nx	—
StreamLine TV	—
StreamLine Mic	—

Apps

myControl App	—
touchControl App	○

● available ○ 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

- ▶ 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.
- ▶ Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil only.
- ▶ 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.
- ▶ 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:
 - S-Receiver Unit and M-Receiver Unit: Closed Click Dome
 - P-Receiver Unit: Click Mold
 - HP-Receiver Unit: Custom Shell
- ▶ Extended frequency range up to 12 kHz for 7Nx devices only.

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.

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Warning

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.