

# Quantum™ Pro

## 13 BTE series

### Signature features

#### 20 channels

#### SpeechZone using binaural spatial processing

SpeechZone™ is the new feature in Pro hearing instruments that automatically lets clients clearly enjoy conversations even in the toughest listening situations. SpeechZone, enabled by binaural spatial processing, is activated when the hearing instruments determine speech is coming from the front in a noisy environment - then both hearing instruments really zone in on speech

#### Automatic program with SmartFocus

Clients can experience superior automatic performance with the optimal blend of 3 listening environments plus a unique specialized treatment of music. In addition, the integration of SmartFocus™ further improves speech understanding in noise or provides optimal comfort automatically

#### Pinna Effect

This feature uses sophisticated calculations to recreate natural directionality

#### Natural Sound Balance

An adaptive feature to minimize artifacts that can occur when amplified sound combines in the ear canal with direct sound. Natural Sound Balance continuously monitors these sounds and makes precision adjustments to preserve a clear, balanced signal

#### Automatic Adaptation Manager

Allows for an automatic and smooth adjustment period for the client; providing the best possible first fit acceptance combined with maximum long-term benefit for speech understanding

#### Feedback manager

Feedback manager offers maximum usable gain by suppressing feedback transients before they become audible

#### Wireless technology

**Binaural Phone** – streams audio to the non-phone ear, allowing for binaural hearing while using a phone

**DuoLink** – program, volume and SmartFocus adjustments conducted on one hearing instrument are automatically transferred to the other ear

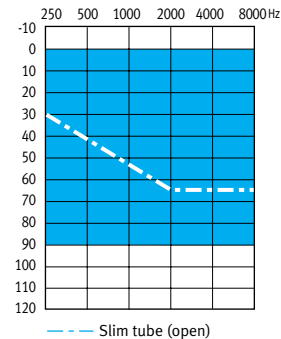
**uDirect™ 2 (optional)** – wireless interface between hearing instruments and Bluetooth® enabled devices (eg. cell phones)

**uTV™ 2 (optional)** – streams audio from a TV or audio source to the uDirect 2

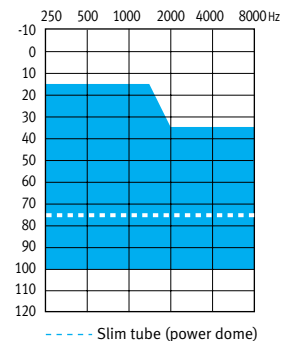
### Additional features

- Multiband adaptive directional microphone
- 3 manual + 3 wireless streaming programs
- AntiShock™
- Self learning and LearnNow™
- MyMusic™
- Wind noise manager
- IntelliVent technology available on custom ear pieces
- Speech enhancement LD
- Noise reduction
- Data logging
- Easy-t and telecoil
- Easy-DAI
- Optional remote controls
- Optional Smart Alert System
- Optional wireless programming with iCube

### Fitting guides



Quantum Pro S (standard)



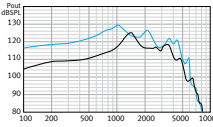
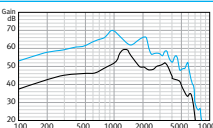
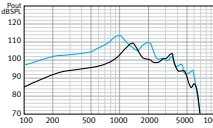
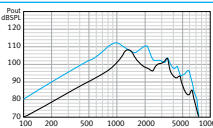
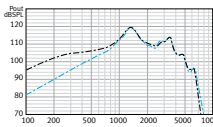
Quantum Pro HP (high power)

Quantum Pro is suitable for fitting mild to severe hearing losses and can fit audiogram configurations ranging from reverse to precipitously sloping.

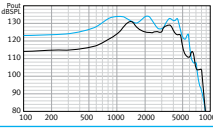
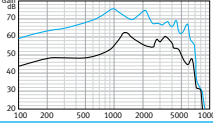
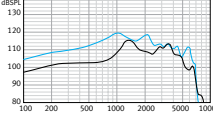
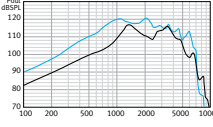
# Quantum Pro 13 BTE series

Quantum Pro S slim tube (optional)    Quantum Pro S (standard)    Quantum Pro HP (high power)    Quantum Pro HP slim tube (optional)

## ANSI 3.22 2003/IEC 118-7 2CC COUPLER TECHNICAL DATA

	Reference test frequency - IEC 118-7 (kHz)	2.5	1.6	1.6	2.5
	<b>OSPL90</b>				
	Maximum (dB SPL)	124	129	133	130
	Nominal (dB SPL)	122	126	130	127
	ANSI HFA (dB SPL)	109	119	125	112
	at RTF (dB SPL)	105	121	123	109
	<b>Full on gain (input 50 dB SPL)</b>				
	Maximum (dB)	53	60	70	65
	ANSI HFA (dB)	40	51	64	50
	at RTF (dB)	36	53	60	47
	<b>Basic frequency response (ANSI 2003)</b>				
	Frequency range (Hz)	100-6700	100-6700	100-6000	100-6900
	Reference test gain (dB)	32	42	47	35
	Current drain at RTG (mA)	1.3	1.3	1.3	1.3
	Typical battery life (h)	240	240	240	240
	Equivalent input noise at RTG (dB SPL)	20	19	19	20
	Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	1/1/1	2/2/1	3/1.5/1	1/1/1
	<b>Induction coil sensitivity (ANSI 2003, 31.6 mA/m)</b>				
	HFA SPLITS/STS-RSETS (dBSPL/dB)	90/0	103/0	107/0	93/0
	<b>Quantum S: mic at 70 dB SPL vs induction coil at 100 mA/m</b>				
	— Mic				
	- - Induction coil				
	<b>Electromagnetic compatibility</b>				
	EMC immunity by ANSI c63.19-2001 EMC, omni/telecoil	M4/T4	M4/T4	M4/T4	M4/T4

## IEC 118-0 OES COUPLER TECHNICAL DATA

	Reference test frequency - IEC 118-0 (kHz)	2.5	1.6	1.6	2.5
	<b>OSPL90</b>				
	Maximum (dB SPL)	126	131	135	131
	at RTF (dB SPL)	119	130	130	124
	<b>Full on gain (input 50 dB SPL)</b>				
	Maximum (dB)	58	64	75	70
	at RTF (dB)	50	63	67	60
	<b>Basic frequency response</b>				
	Frequency range (DIN 45605) (Hz)	100-5300	100-7000	100-6200	100-6700
	Reference test gain (dB)	44	55	55	49
	Current drain at RTG (mA)	1.3	1.3	1.3	1.3
	Typical battery life (h)	240	240	240	240
	Equivalent input noise at RTG (dB SPL)	12	19	19	12
	Total harmonic distortion at 500 Hz/800 Hz/1600 Hz (%)	2/2/1	3/3/1	4/2.5/1.5	2/2/1
	<b>Induction coil sensitivity</b>				
	at RTF (graph shown for 31.6 mA/m at RTG) (dB SPL)	105	114	116	108
	Maximum (1 mA/m at full on gain) (dB SPL)	86	95	104	99
	at RTF (1 mA/m at full on gain) (dB SPL)	81	94	99	91
	<b>Electromagnetic compatibility</b>				
	EMC immunity by IEC 60118-13, field strength 75/50 V/m, omni IRIL low/high band (dB SPL)	26/45	26/45	26/52	26/52

## LEGEND

— Quantum Pro S  
— Quantum Pro HP

## TEST CONDITIONS

Earhook: filtered; Battery size: 13; Source: voltage 1.3 V; Tubing: length 25 mm, inside diameter 1.93 mm  
 Measurement data obtained with hearing aid set to linear, omni mode with all adaptive features disabled.  
 Domes should never be fit on patients with perforated eardrums, exposed middle ear cavities, or surgically altered ear canals.  
 In the case of such a condition, we recommend use of a customized earmold.  
 Sound pressure level of these hearing aids exceeds 132 dB SPL.  
 We reserve the right to change specification data without notice as improvements are introduced.