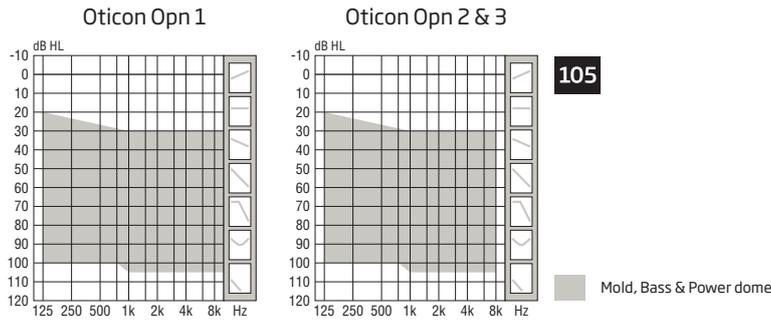


# Technical data sheet

OTICON | **Opn**

BTE13 PP (105)



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
<b>Sound Quality</b>	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Binaural Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
<b>Listening Comfort</b>	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
<b>Connecting to the World</b>	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
	Stereo streaming (2.4 GHz)	•	•	•
	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
	Tinnitus SoundSupport™	•	•	•
Expected battery life, hours**	80-105	80-105	80-105	

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 13 - IEC PR41.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

Oticon Opn BTE13 PP features a compact design with a tactile double push button for easy operation of volume and programs. BTE13 PP comes with a telecoil and an optional discreet, two-color LED indicator to monitor hearing aid status.

OpenSound Navigator™ provides better speech understanding by continuously analyzing the environment, balancing all sound sources and attenuating the dominating noise.

TwinLink™ wireless technology combines binaural communication and 2.4 GHz connectivity in stereo directly to external digital devices with very low power consumption.

Fully programmable with updatable firmware, the Velox™ platform is ready for the future.

Oticon Opn is a Made for iPhone® hearing aid.

Oticon Opn is built on the new Velox platform, providing frequency resolution in 64 channels (Opn 1).



Oticon Opn is compatible with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, 9.7-inch iPad Pro, 12.9-inch iPad Pro, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, and iPod touch (5th and 6th generation). Devices must be running iOS 9.3 or later. Please visit [www.oticon.com](http://www.oticon.com) for more details on compatibility.



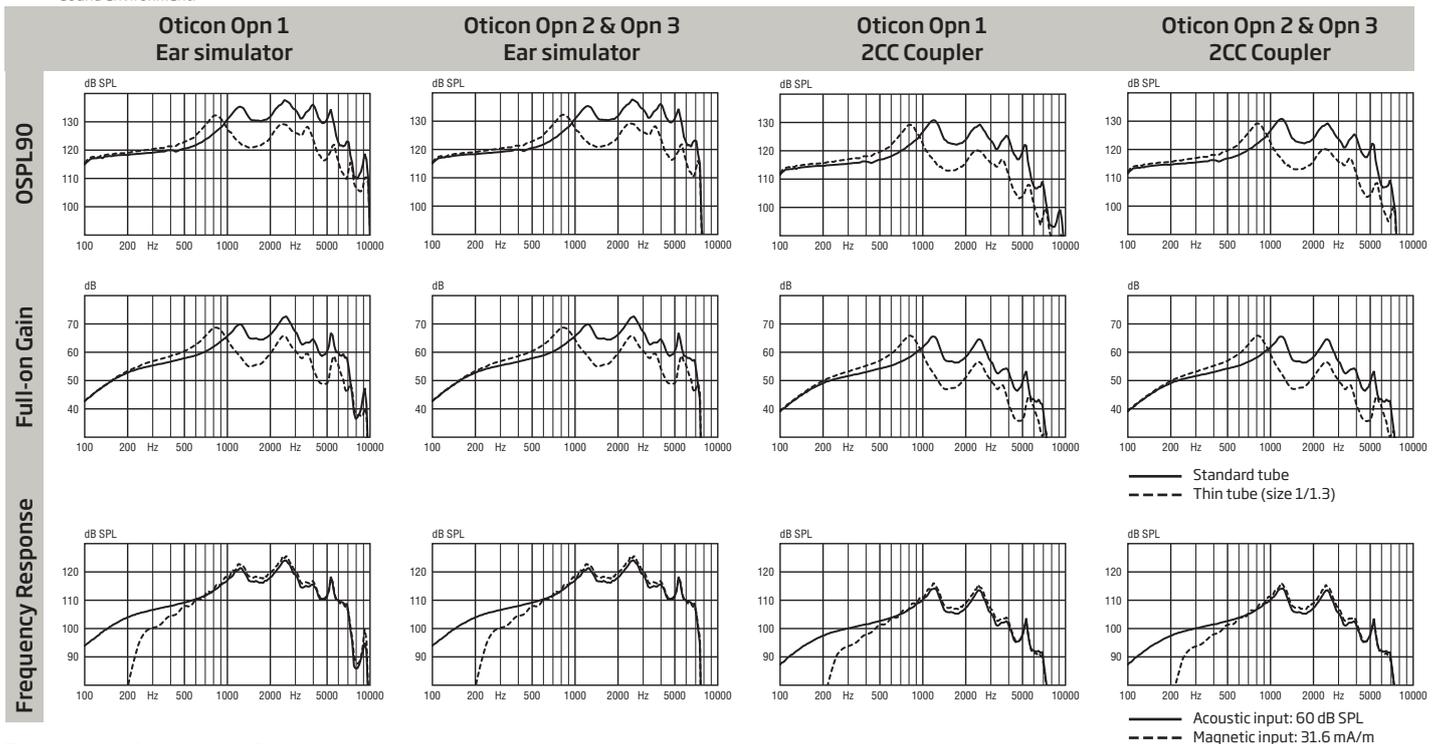
Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22:2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn BTE13 PP		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		150-7300			120-7000		
OSPL90	Peak	138 (132*) dB SPL			131 (129*) dB SPL		
	1600 Hz	130 (121*) dB SPL			123 (113*) dB SPL		
	HFA-OSPL90	133 (126*) dB SPL			126 (118*) dB SPL		
Full-on gain**	Peak	73 (69*) dB			66 (66*) dB		
	1600 Hz	65 (56*) dB			57 (47*) dB		
	HFA-FOG	68 (62*) dB			61 (54*) dB		
Reference test gain		57 dB			50 dB		
Telecoil output (1600 Hz)	1 mA/m field	97 dB SPL			-		
	10 mA/m field	117 dB SPL			-		
	SPLITS L/R	-			109/109 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	7 %			3 %		
	800 Hz	5 %			<2 %		
	1600 Hz	<2 %			<2 %		
Equivalent input noise level	Omni	17 dB SPL			14 dB SPL		
	Dir	29 dB SPL			27 dB SPL		
Battery consumption***	Typical	1.8 mA			1.9 mA		
	Quiescent	1.6 mA			1.6 mA		
Battery life, artificial measurement, hours****		175			160		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 18/20/40 dB SPL					

\* For instruments fitted with Corda miniFit Power

\*\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

\*\*\*\* Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

**Operating conditions**

Temperature: +1°C to +40°C

Relative humidity:

5% to 93%, non-condensing

**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

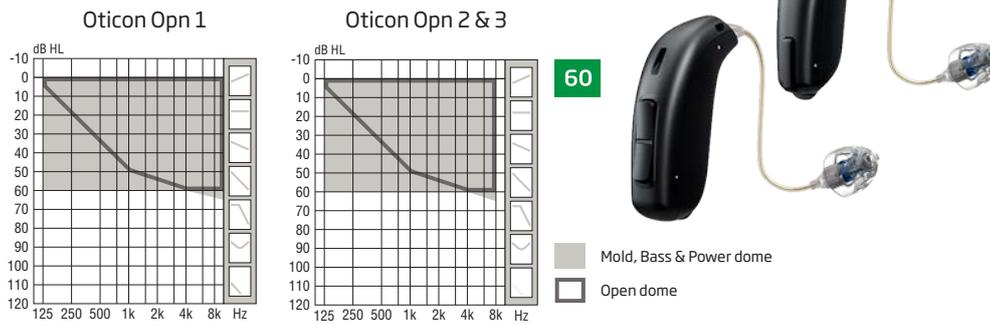
Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

**Instrument warning**

The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing instrument user.

# Technical data sheet



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
<b>Sound Quality</b>	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Binaural Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
<b>Listening Comfort</b>	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
<b>Connecting to the World</b>	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
	Stereo streaming (2.4 GHz)	•	•	•
<b>Connecting to the World</b>	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
	Tinnitus SoundSupport™	•	•	•
Expected battery life, hours**	60-65	60-65	60-65	

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 312 - IEC PR41.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

## OTICON | Opn

miniRITE 60  
miniRITE-T 60

Oticon Opn™ miniRITE is a discreet design with a smart single push button.

Oticon Opn miniRITE-T is a discreet style based on the popular miniRITE. It features a telecoil and a convenient double push button for easy operation of the volume and program controls.

OpenSound Navigator™ provides better speech understanding by continuously analyzing the environment, balancing all sound sources and attenuating the dominating noise.

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Oticon Opn is compatible with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, 9.7-inch iPad Pro, 12.9-inch iPad Pro, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, and iPod touch (5th and 6th generation). Devices must be running iOS 9.3 or later. Please visit [www.oticon.com](http://www.oticon.com) for more details on compatibility.

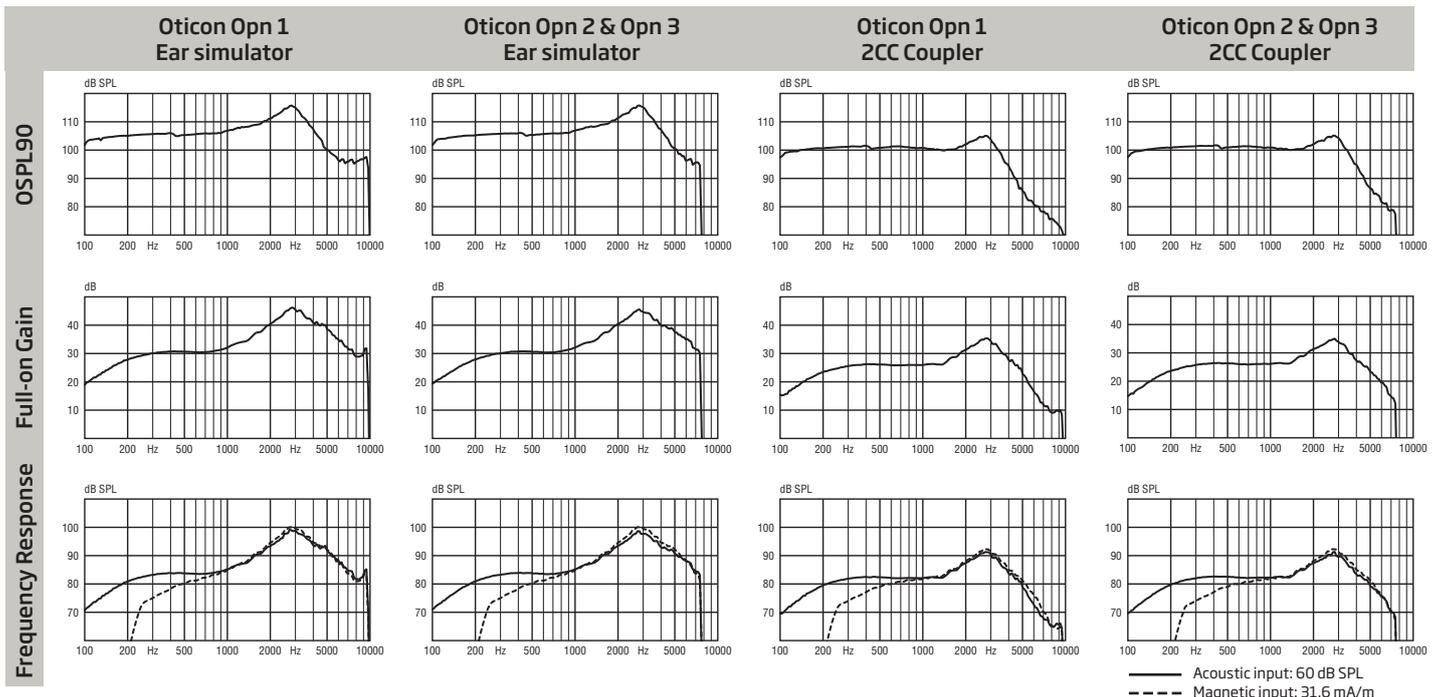


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22:2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn miniRITE/miniRITE-T		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		110-9700	110-7500	110-7500	100-9200	100-7500	100-7500
OSPL90	Peak	116 dB SPL			105 dB SPL		
	1600 Hz	109 dB SPL			100 dB SPL		
	HFA-OSPL90	110 dB SPL			102 dB SPL		
Full-on gain*	Peak	46 dB			35 dB		
	1600 Hz	37 dB			29 dB		
	HFA-FOG	38 dB			30 dB		
Reference test gain		30 dB			26 dB		
Telecoil output (1600 Hz) (miniRITE-T)	1 mA/m field	67 dB SPL			-		
	10 mA/m field	87 dB SPL			-		
	SPLITS L/R	-			85/85 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	< 2 %			< 2 %		
	800 Hz	< 3 %			< 2 %		
	1600 Hz	< 2 %			< 2 %		
Equivalent input noise level	Omni (dB SPL)	21	22	22	18	19	19
	Dir (dB SPL)	28	30	30	27	28	28
Battery consumption**	Typical	1.5 mA			1.6 mA		
	Quiescent	1.5 mA			1.5 mA		
Battery life, artificial measurement, hours***		120			115		
IRIL (IEC 60118-13:2011) miniRITE		800/1400/2000 MHz: 21/<2/<2 dB SPL					
IRIL (IEC 60118-13:2016) miniRITE-T		700/1400/2000 MHz: 16/21/26 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

\*\*\* Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



**Technical information:** Omnidirectional mode is used unless otherwise stated.

**Operating conditions**

Temperature: +1°C to +40°C

Relative humidity:

5% to 93%, non-condensing

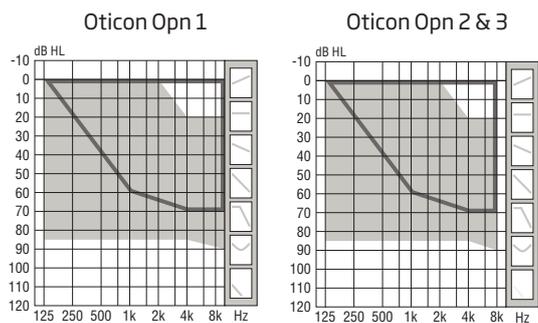
**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

# Technical data sheet



85



- Mold, Bass & Power dome
- Open dome

	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
<b>Sound Quality</b>	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Binaural Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
<b>Listening Comfort</b>	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
<b>Connecting to the World</b>	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
	Stereo streaming (2.4 GHz)	•	•	•
<b>Connecting to the World</b>	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
	Tinnitus SoundSupport™	•	•	•
Expected battery life, hours**	55-65	55-65	55-65	

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 312 - IEC PR41.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

## OTICON | Opn

miniRITE 85  
miniRITE-T 85

Oticon Opn™ miniRITE is a discreet design with a smart single push button.

Oticon Opn miniRITE-T is a discreet style based on the popular miniRITE. It features a telecoil and a convenient double push button for easy operation of the volume and program controls.

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Oticon Opn is compatible with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, 9.7-inch iPad Pro, 12.9-inch iPad Pro, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, and iPod touch (5th and 6th generation). Devices must be running iOS 9.3 or later. Please visit [www.oticon.com](http://www.oticon.com) for more details on compatibility.

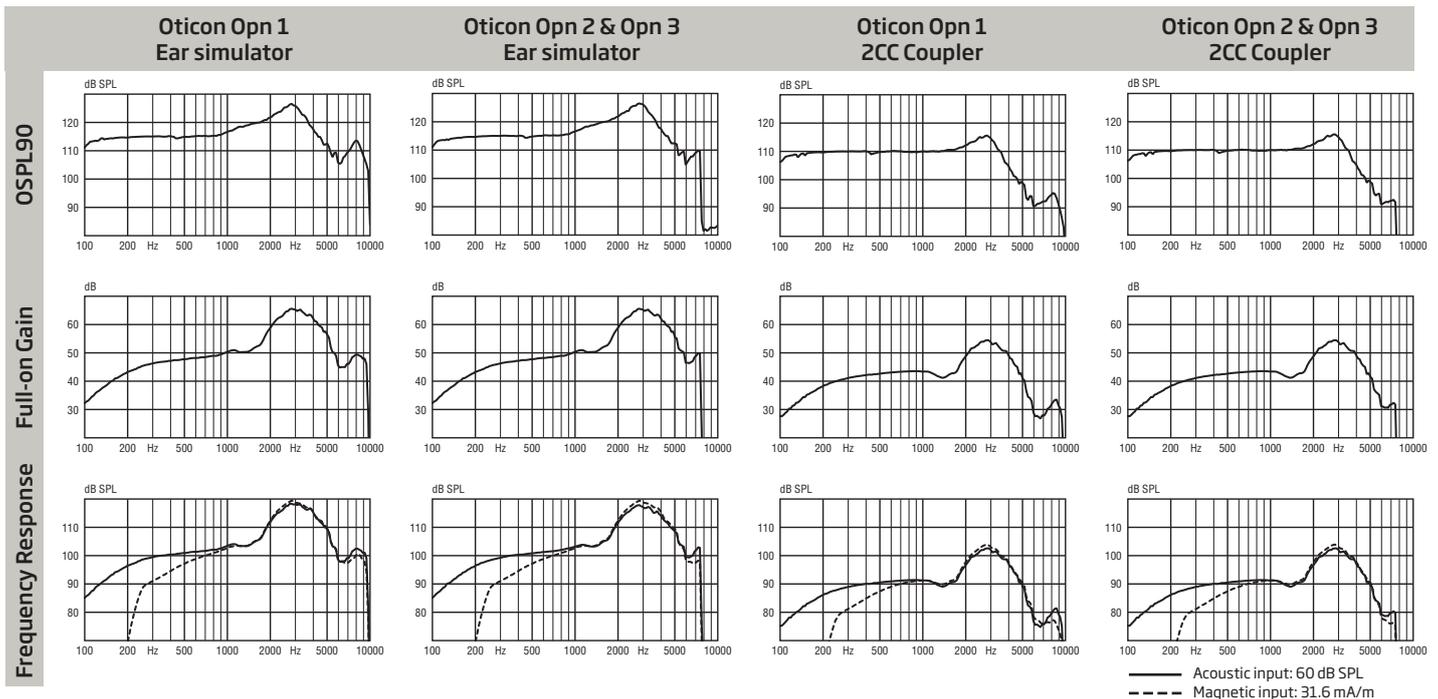


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22:2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn miniRITE/miniRITE-T		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		120-9500	120-7500	120-7500	100-8500	100-7500	100-7500
OSPL90	Peak	127 dB SPL			116 dB SPL		
	1600 Hz	120 dB SPL			111 dB SPL		
	HFA-OSPL90	121 dB SPL			112 dB SPL		
Full-on gain*	Peak	66 dB			54 dB		
	1600 Hz	52 dB			43 dB		
	HFA-FOG	55 dB			47 dB		
Reference test gain		45 dB			34 dB		
Telecoil output (1600 Hz) (miniRITE-T)	1 mA/m field	82 dB SPL			-		
	10 mA/m field	102 dB SPL			-		
	SPLITS L/R	-			94/94 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	< 2 %			< 2 %		
	800 Hz	< 3 %			< 2 %		
	1600 Hz	< 2 %			< 2 %		
Equivalent input noise level	Omni (dB SPL)	25	26	26	20	21	21
	Dir (dB SPL)	32	33	33	29	30	30
Battery consumption**	Typical	1.6 mA			1.7 mA		
	Quiescent	1.5 mA			1.5 mA		
Battery life, artificial measurement, hours***		110			105		
IRIL (IEC 60118-13:2011) miniRITE		800/1400/2000 MHz: 31/<15/<15 dB SPL					
IRIL (IEC 60118-13:2016) miniRITE-T		700/1400/2000 MHz: 20/20/24 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

\*\*\* Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



**Technical information:** Omnidirectional mode is used unless otherwise stated.

**Operating conditions**

Temperature: +1°C to +40°C

**Relative humidity:**

5% to 93%, non-condensing

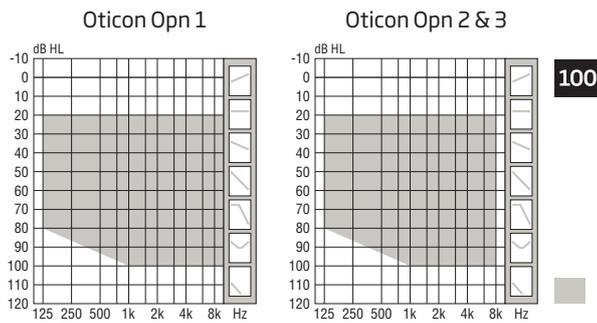
**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

# Technical data sheet



Power flex mold, Bass & Power dome

	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
<b>Sound Quality</b>	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Binaural Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
<b>Listening Comfort</b>	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
<b>Connecting to the World</b>	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
	Stereo streaming (2.4 GHz)	•	•	•
	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
	Tinnitus SoundSupport™	•	•	•
Expected battery life, hours**	50-65	50-65	50-65	

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 312 - IEC PR41.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

## OTICON | Opn

miniRITE 100  
miniRITE-T 100

Oticon Opn™ miniRITE is a discreet design with a smart single push button.

Oticon Opn miniRITE-T is a discreet style based on the popular miniRITE. It features a telecoil and a convenient double push button for easy operation of the volume and program controls.

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Oticon Opn is compatible with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, 9.7-inch iPad Pro, 12.9-inch iPad Pro, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, and iPod touch (5th and 6th generation). Devices must be running iOS 9.3 or later. Please visit [www.oticon.com](http://www.oticon.com) for more details on compatibility.

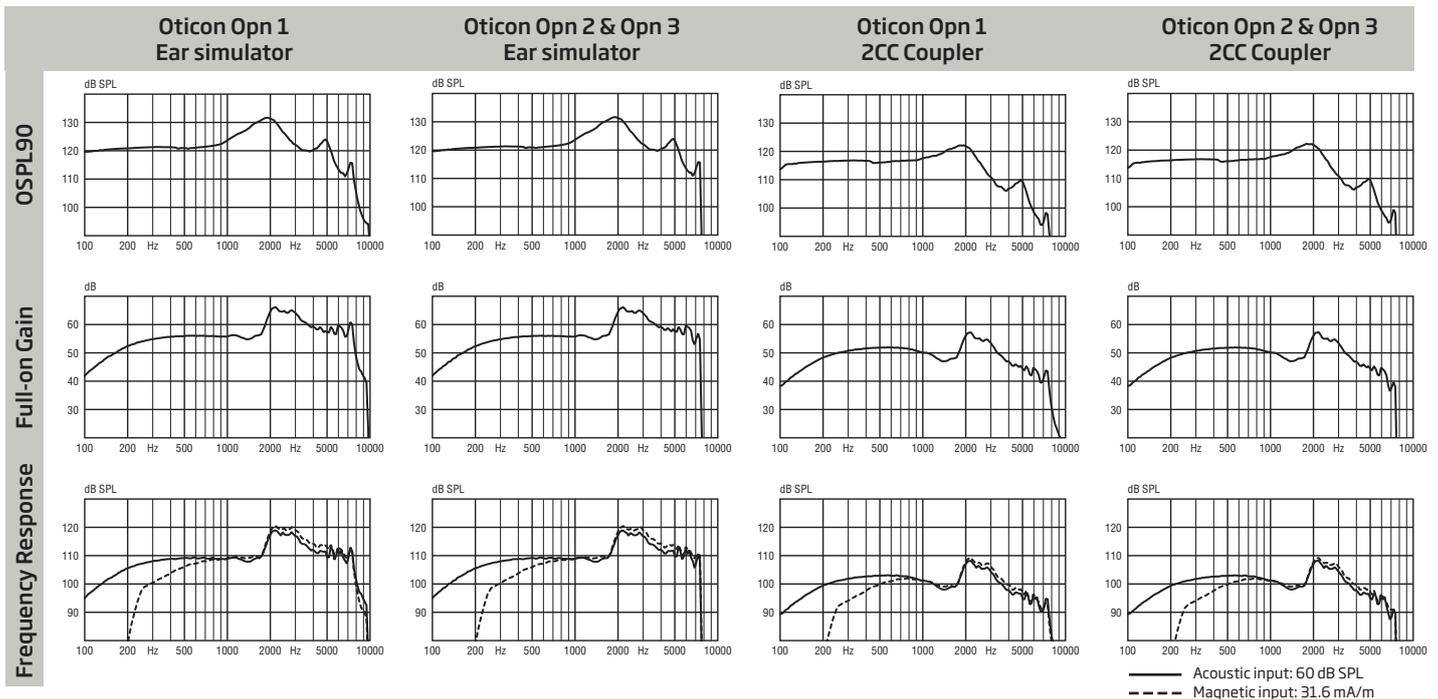


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn miniRITE/miniRITE-T		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-8500	100-7500	100-7500	100-8000	100-7500	100-7500
OSPL90	Peak	132 dB SPL			122 dB SPL		
	1600 Hz	130 dB SPL			121 dB SPL		
	HFA-OSPL90	127 dB SPL			118 dB SPL		
Full-on gain*	Peak	66 dB			57 dB		
	1600 Hz	56 dB			48 dB		
	HFA-FOG	59 dB			51 dB		
Reference test gain		49 dB			42 dB		
Telecoil output (1600 Hz) (miniRITE-T)	1 mA/m field	86 dB SPL			-		
	10 mA/m field	106 dB SPL			-		
	SPLITS L/R	-			103/103 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	< 7 %			< 2 %		
	800 Hz	< 4 %			< 2 %		
	1600 Hz	< 2 %			< 2 %		
Equivalent input noise level	Omni	23 dB SPL			19 dB SPL		
	Dir	32 dB SPL			30 dB SPL		
Battery consumption**	Typical	1.5 mA			1.7 mA		
	Quiescent	1.5 mA			1.5 mA		
Battery life, artificial measurement, hours***		115			105		
IRIL (IEC 60118-13:2011) miniRITE		800/1400/2000 MHz: 25/ < 20/ < 20 dB SPL					
IRIL (IEC 60118-13:2016) miniRITE-T		700/1400/2000 MHz: 18/21/28 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

\*\*\* Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

**Operating conditions**

Temperature: +1°C to +40°C

**Relative humidity:**

5% to 93%, non-condensing

**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Temperature: -25°C to +60°C

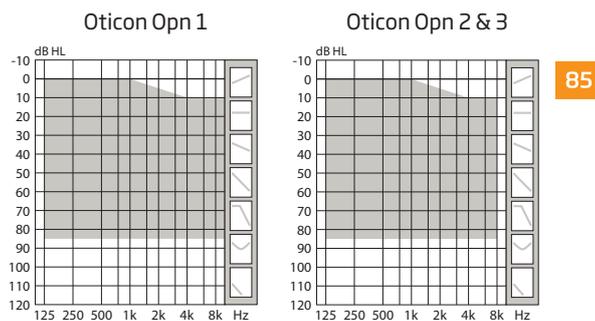
Relative humidity: 5% to 93%, non-condensing

**Instrument warning**

The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing instrument user.

# Technical data sheet

OTICON | **Opn**  
IIC 85



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
OpenSound Navigator™	Level 1	Level 2	Level 3	
Speech Understanding	Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Soft Speech Booster LX	•	•	•
	Speech Rescue™ LX	•	•	•
Sound Quality	Clear Dynamics	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
Listening Comfort	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
Personalization & Optimizing Fitting	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
	Acoustic Notifications	•	•	•
	Battery life, hours**	60-70	60-70	60-70

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 10 - IEC PR70.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels.

- Default
- Not included

OpenSound Navigator™ continuously analyzes the environment and attenuates the disturbing noise.

Oticon Opn is built on the Velox™ platform, providing frequency resolution in 64 channels (Opn 1).

Fully programmable with updatable firmware, the Velox platform is ready for the future.



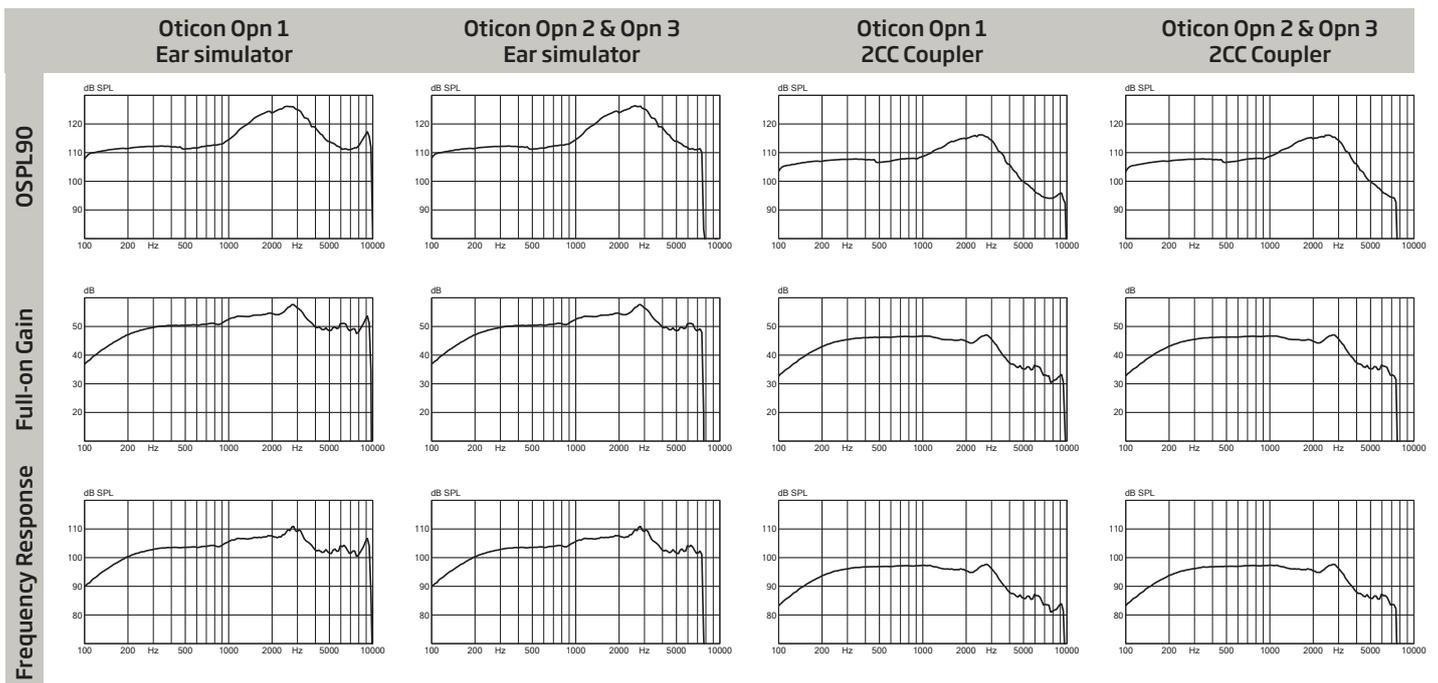
IP68

Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn IIC 85		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-9500	100-7500	100-7500	100-9200	100-7500	100-7500
OSPL90	Peak	126 dB SPL			116 dB SPL		
	1600 Hz	123 dB SPL			114 dB SPL		
	HFA-OSPL90	121 dB SPL			113 dB SPL		
Full-on gain*	Peak	58 dB			47 dB		
	1600 Hz	54 dB			45 dB		
	HFA-FOG	54 dB			46 dB		
Reference test gain		47 dB			37 dB		
Telecoil output (1600 Hz)	1 mA/m field	-			-		
	10 mA/m field	-			-		
	SPLITS L/R	-			-		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			< 2 %		
	800 Hz	3 %			2 %		
	1600 Hz	2 %			< 2 %		
Equivalent input noise level		Omni 18 dB SPL			18 dB SPL		
Battery consumption**	Typical	1.1 mA			1.4 mA		
	Quiescent	1.0 mA			1.0 mA		
Battery life, calculated, hours***		90			70		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 19/11/10 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.

\*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

#### Operating conditions

Temperature: +1°C to +40°C

#### Relative humidity:

5% to 93%, non-condensing

#### Storage and transportation conditions

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

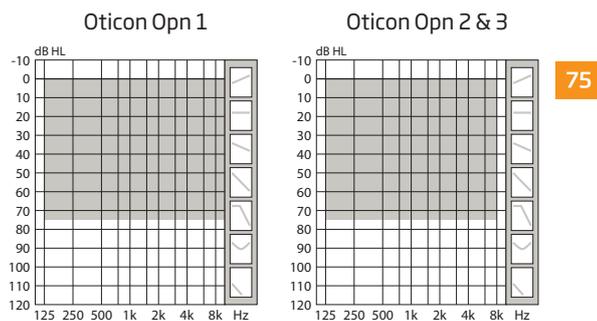
Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

# Technical data sheet

OTICON | **Opn**

CIC 75



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3
<b>Speech Understanding</b>			
OpenSound Navigator™	Level 1	Level 2	Level 3
Max. noise removal	9 dB	5 dB	3 dB
Speech Guard™ LX	Level 1	Level 2	Level 3
Spatial Sound™ LX***	4 estimators (o)	2 estimators (o)	2 estimators (o)
Soft Speech Booster LX	•	•	•
Speech Rescue™ LX	•	•	•
<b>Sound Quality</b>			
Clear Dynamics	•	•	-
Spatial Noise Management***	o	o	-
Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
Processing Channels	64	48	48
<b>Listening Comfort</b>			
Transient Noise Management	4 configurations	On/Off	On/Off
Feedback shield LX	•	•	•
Binaural Coordination****	o	o	o
<b>Personalization &amp; Optimizing Fitting</b>			
YouMatic™ LX	3 configurations	2 configurations	1 configuration
Fitting Bands	16	14	12
Adaptation Management	•	•	•
Oticon Firmware Updater	•	•	•
Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
Acoustic Notifications	•	•	•
Tinnitus SoundSupport™****	o	o	o
<b>Battery life, hours**</b>	70-80	70-80	70-80

OpenSound Navigator™ continuously analyzes the environment and attenuates the disturbing noise.

NFMI wireless technology is optional and provides binaural communication

Oticon Opn is built on the Velox™ platform, providing frequency resolution in 64 channels (Opn 1).

Fully programmable with updatable firmware, the Velox platform is ready for the future.



IP68

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 10 - IEC PR70.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels.

\*\*\* If NFMI is choosen

\*\*\*\* If NFMI and push button is choosen

• Default

o Optional

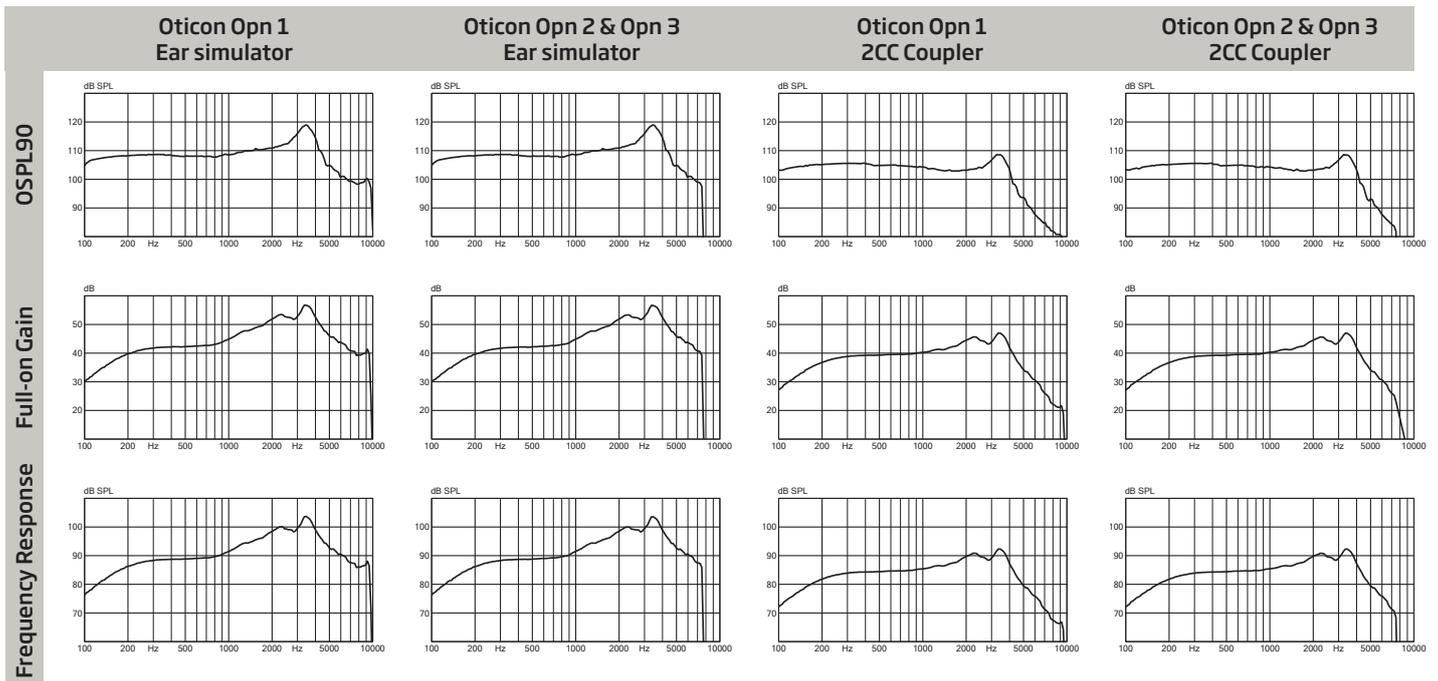
- Not included

Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn CIC 75		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-9500	100-7500	100-7500	100-7000	100-7000	100-7000
OSPL90	Peak	119 dB SPL			109 dB SPL		
	1600 Hz	110 dB SPL			103 dB SPL		
	HFA-OSPL90	110 dB SPL			104 dB SPL		
Full-on gain*	Peak	57 dB			47 dB		
	1600 Hz	49 dB			42 dB		
	HFA-FOG	49 dB			42 dB		
Reference test gain		36 dB			27 dB		
Telecoil output (1600 Hz)	1 mA/m field	-			-		
	10 mA/m field	-			-		
	SPLITS L/R	-			-		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			< 2 %		
	800 Hz	2 %			< 2 %		
	1600 Hz	3 %			2 %		
Equivalent input noise level		20 dB SPL			19 dB SPL		
Battery consumption**	Typical	1.0 mA			1.0 mA		
	Quiescent	1.0 mA			1.0 mA		
Battery life, calculated, hours***		100			100		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 18/12/11 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.

\*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

#### Operating conditions

Temperature: +1°C to +40°C

#### Relative humidity:

5% to 93%, non-condensing

#### Storage and transportation conditions

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

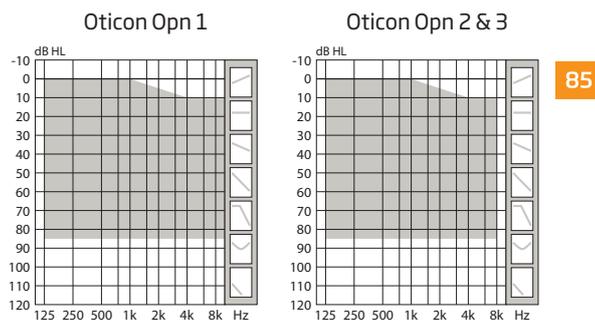
Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

# Technical data sheet

OTICON | **Opn**

CIC 85



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3
<b>Speech Understanding</b>			
OpenSound Navigator™	Level 1	Level 2	Level 3
Max. noise removal	9 dB	5 dB	3 dB
Speech Guard™ LX	Level 1	Level 2	Level 3
Spatial Sound™ LX***	4 estimators (o)	2 estimators (o)	2 estimators (o)
Soft Speech Booster LX	•	•	•
Speech Rescue™ LX	•	•	•
<b>Sound Quality</b>			
Clear Dynamics	•	•	-
Spatial Noise Management***	o	o	-
Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
Processing Channels	64	48	48
<b>Listening Comfort</b>			
Transient Noise Management	4 configurations	On/Off	On/Off
Feedback shield LX	•	•	•
Binaural Coordination****	o	o	o
<b>Personalization &amp; Optimizing Fitting</b>			
YouMatic™ LX	3 configurations	2 configurations	1 configuration
Fitting Bands	16	14	12
Adaptation Management	•	•	•
Oticon Firmware Updater	•	•	•
Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
Acoustic Notifications	•	•	•
Tinnitus SoundSupport™****	o	o	o
<b>Battery life, hours**</b>	60-70	60-70	60-70

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NFMI wireless technology is optional and provides binaural communication

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Fully programmable with updatable firmware, the Velox platform is ready for the future.



IP68

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 10 - IEC PR70.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels.

\*\*\* If NFMI is choosen

\*\*\*\* If NFMI and push button is choosen

• Default

o Optional

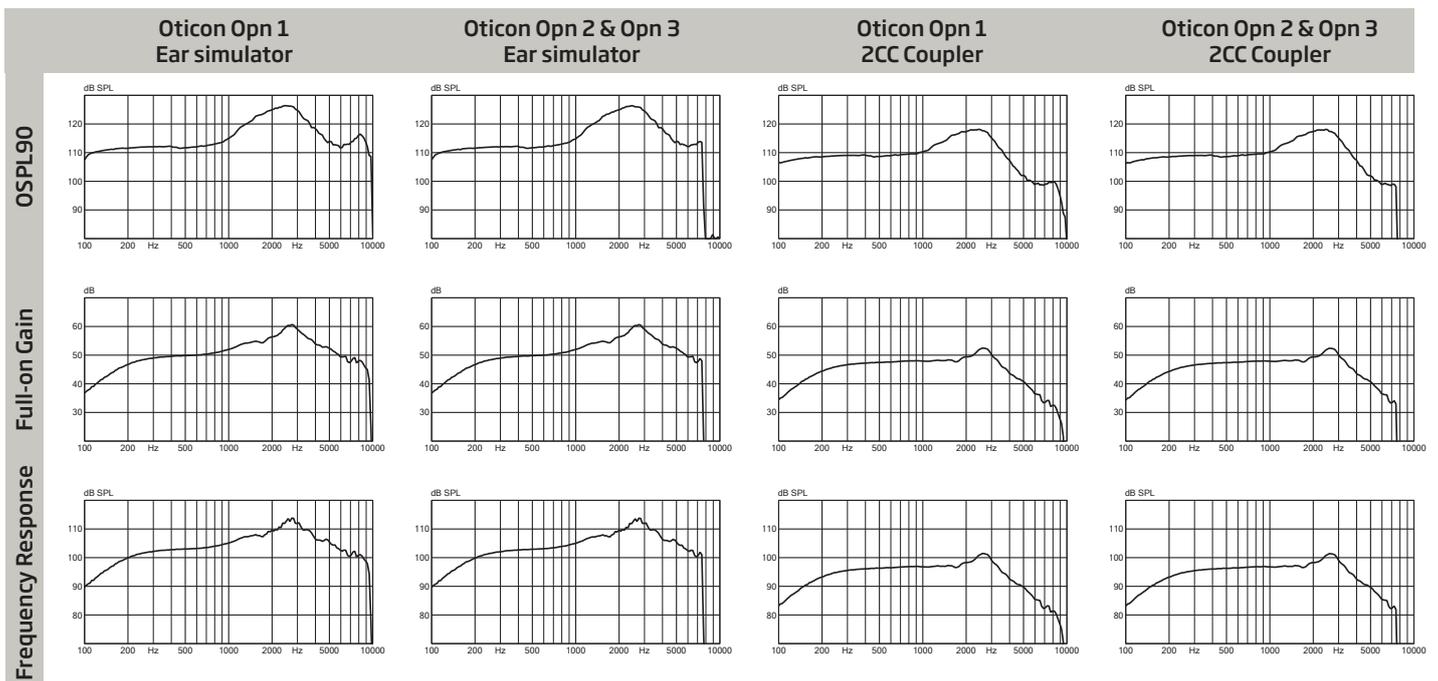
- Not included

Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn CIC 85		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-9500	100-7500	100-7500	100-9000	100-7500	100-7500
OSPL90	Peak	126 dB SPL			118 dB SPL		
	1600 Hz	123 dB SPL			116 dB SPL		
	HFA-OSPL90	121 dB SPL			115 dB SPL		
Full-on gain*	Peak	61 dB			52 dB		
	1600 Hz	55 dB			48 dB		
	HFA-FOG	56 dB			49 dB		
Reference test gain		48 dB			38 dB		
Telecoil output (1600 Hz)	1 mA/m field	-			-		
	10 mA/m field	-			-		
	SPLITS L/R	-			-		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			< 2 %		
	800 Hz	3 %			< 2 %		
	1600 Hz	4 %			2 %		
Equivalent input noise level		20 dB SPL			17 dB SPL		
Battery consumption**	Typical	1.1 mA			1.3 mA		
	Quiescent	1.0 mA			1.0 mA		
Battery life, calculated, hours***		90			80		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 19/11/26 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.

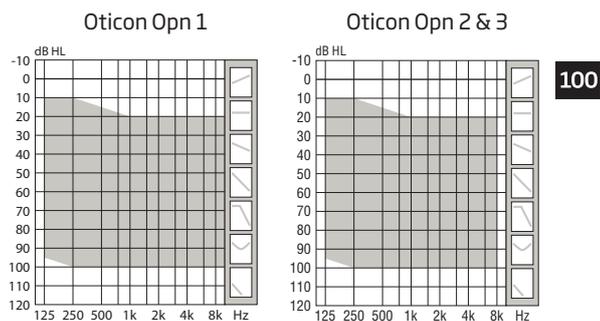
\*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

<b>Operating conditions</b> Temperature: +1°C to +40°C  Relative humidity: 5% to 93%, non-condensing	<b>Storage and transportation conditions</b> Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.  Temperature: -25°C to +60°C Relative humidity: 5% to 93%, non-condensing
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# Technical data sheet



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
Speech Understanding	OpenSound Navigator™	Level 1	Level 2	Level 3
	Balancing power effect	100%	50%	50%
	Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
	Speech Rescue™ LX	•	•	•
Sound Quality	Clear Dynamics	•	•	-
	Spatial Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
Listening Comfort	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
Personalization & Optimizing Fitting	Wind Noise Management	•	•	•
	Binaural Coordination***	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
Connecting to the World	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
	Acoustic Notifications	•	•	•
Connecting to the World	Stereo streaming (2.4 GHz)	○	○	○
	Oticon ON App	○	○	○
	ConnectClip	○	○	○
	Remote Control 3.0	○	○	○
	TV Adapter 3.0	○	○	○
	Autophone	○	○	○
Tinnitus SoundSupport™***	•	•	•	
Battery life, hours**	50-60 / 90-115	50-60 / 90-115	50-60 / 90-115	

\* Bandwidth accessible for gain adjustments during fitting  
 \*\* Battery size 312 - IEC PR41 / Battery size 13 - IEC PR48.  
 Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).  
 \*\*\* If push button is choosen  
 • Default ○ Optional - Not included

## OTICON | Opn ITC, ITE HS & FS 100



Oticon Opn™ ITC, ITE HS & FS introduce an updated faceplate design.

OpenSound Navigator™ provides better speech understanding by continuously analyzing the environment, balancing all sound sources and attenuating the dominating noise.

TwinLink™ wireless technology combines binaural communication and 2.4 GHz connectivity in stereo directly to external digital devices with very low power consumption. 2.4 GHz is an optional.

Oticon Opn is a Made for iPhone® hearing aid.

Oticon Opn is built on the Velox™ platform, providing frequency resolution in 64 channels (Opn 1).

Fully programmable with updatable firmware, the Velox platform is ready for the future.



For information on compatibility, please visit [www.oticon.com](http://www.oticon.com)

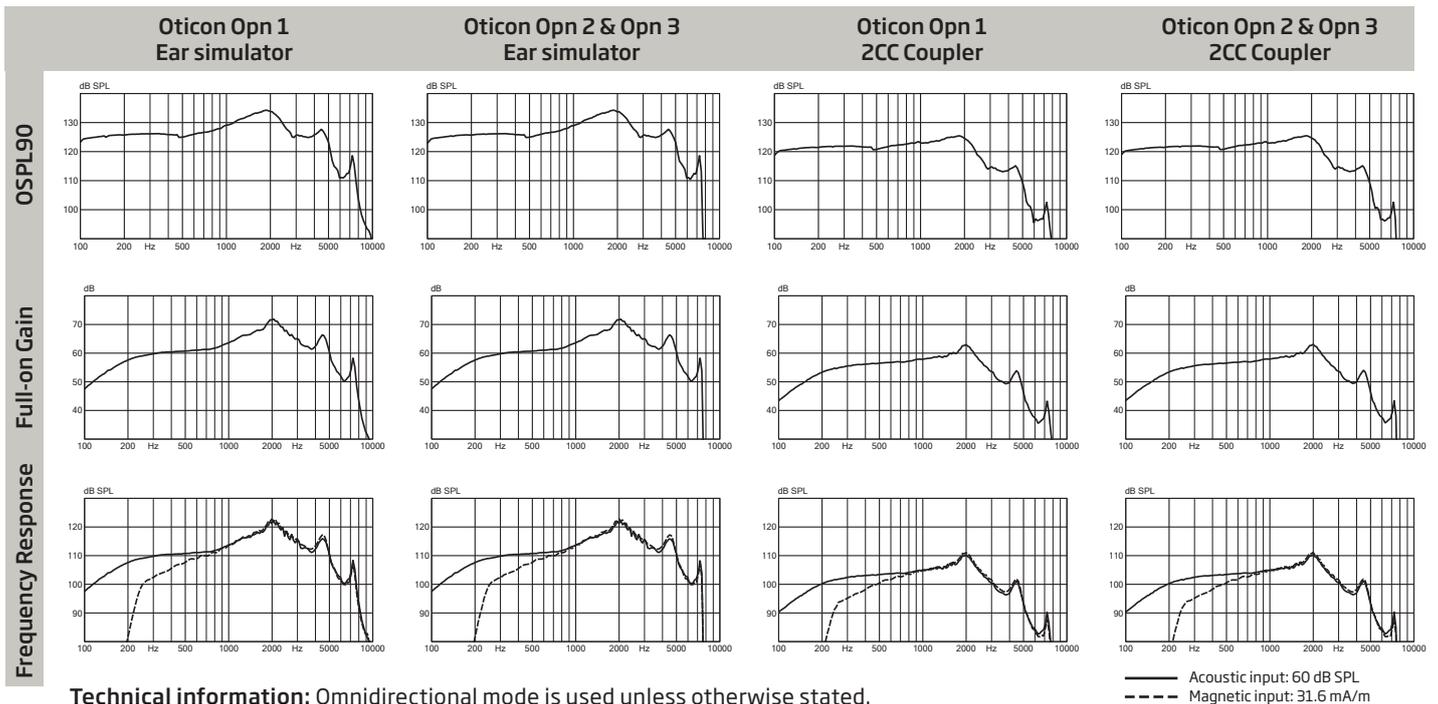


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22:2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn ITC ITE HS & FS 100		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-7500	100-7500	100-7500	100-7100	100-7100	100-7100
OSPL90	Peak	134 dB SPL			125 dB SPL		
	1600 Hz	133 dB SPL			125 dB SPL		
	HFA-OSPL90	130 dB SPL			122 dB SPL		
Full-on gain*	Peak	72 dB			63 dB		
	1600 Hz	68 dB			60 dB		
	HFA-FOG	67 dB			58 dB		
Reference test gain		58 dB			45 dB		
Telecoil output (1600 Hz)	1 mA/m field	98 dB SPL			-		
	10 mA/m field	118 dB SPL			-		
	SPLITS L/R	-			103/103 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			< 2 %		
	800 Hz	2 %			< 2 %		
	1600 Hz	3 %			< 2 %		
Equivalent input noise level	Omni	14 dB SPL			15 dB SPL		
	Dir	26 dB SPL			28 dB SPL		
Battery consumption**	Typical	1.8 mA			1.8 mA		
	Quiescent	1.7 mA			1.7 mA		
Battery life, calculated, hours 312 and 13***		105 / 175			100 / 170		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 19/12/6 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

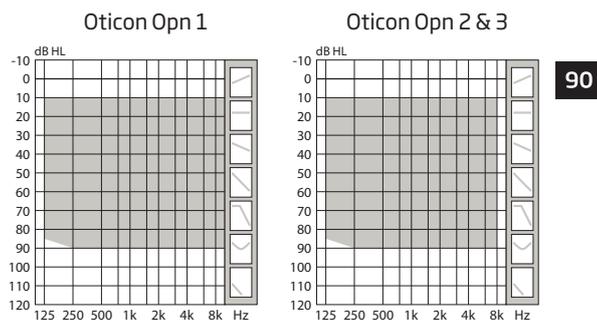
\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.

\*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



<b>Operating conditions</b> Temperature: +1°C to +40°C  Relative humidity: 5% to 93%, non-condensing	<b>Storage and transportation conditions</b> Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.  Temperature: -25°C to +60°C Relative humidity: 5% to 93%, non-condensing	<b>Instrument warning</b> The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing aid user.
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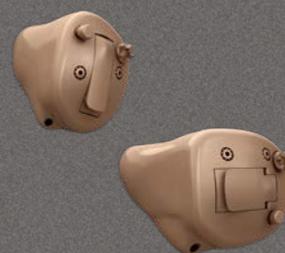
# Technical data sheet



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	Balancing power effect	100%	50%	50%
	Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
	Speech Rescue™ LX	•	•	•
<b>Sound Quality</b>	Clear Dynamics	•	•	-
	Spatial Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
	Bass Boost (streaming)	•	•	•
<b>Listening Comfort</b>	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
	Wind Noise Management	•	•	•
	Binaural Coordination***	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
	Acoustic Notifications	•	•	•
<b>Connecting to the World</b>	Stereo streaming (2.4 GHz)	○	○	○
	Oticon ON App	○	○	○
	ConnectClip	○	○	○
	Remote Control 3.0	○	○	○
	TV Adapter 3.0	○	○	○
	Autophone	○	○	○
	Tinnitus SoundSupport™***	•	•	•
<b>Battery life, hours**</b>	55-60 / 105-115	55-60 / 105-115	55-60 / 105-115	

\* Bandwidth accessible for gain adjustments during fitting  
 \*\* Battery size 312 - IEC PR41 / Battery size 13 - IEC PR48.  
 Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).  
 \*\*\* If push button is choosen  
 • Default ○ Optional - Not included

## OTICON | Opn ITC, ITE HS & FS 90



Oticon Opn™ ITC, ITE HS & FS introduce an updated faceplate design.

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Fully programmable with updatable firmware, the Velox platform is ready for the future.



For information on compatibility, please visit [www.oticon.com](http://www.oticon.com)

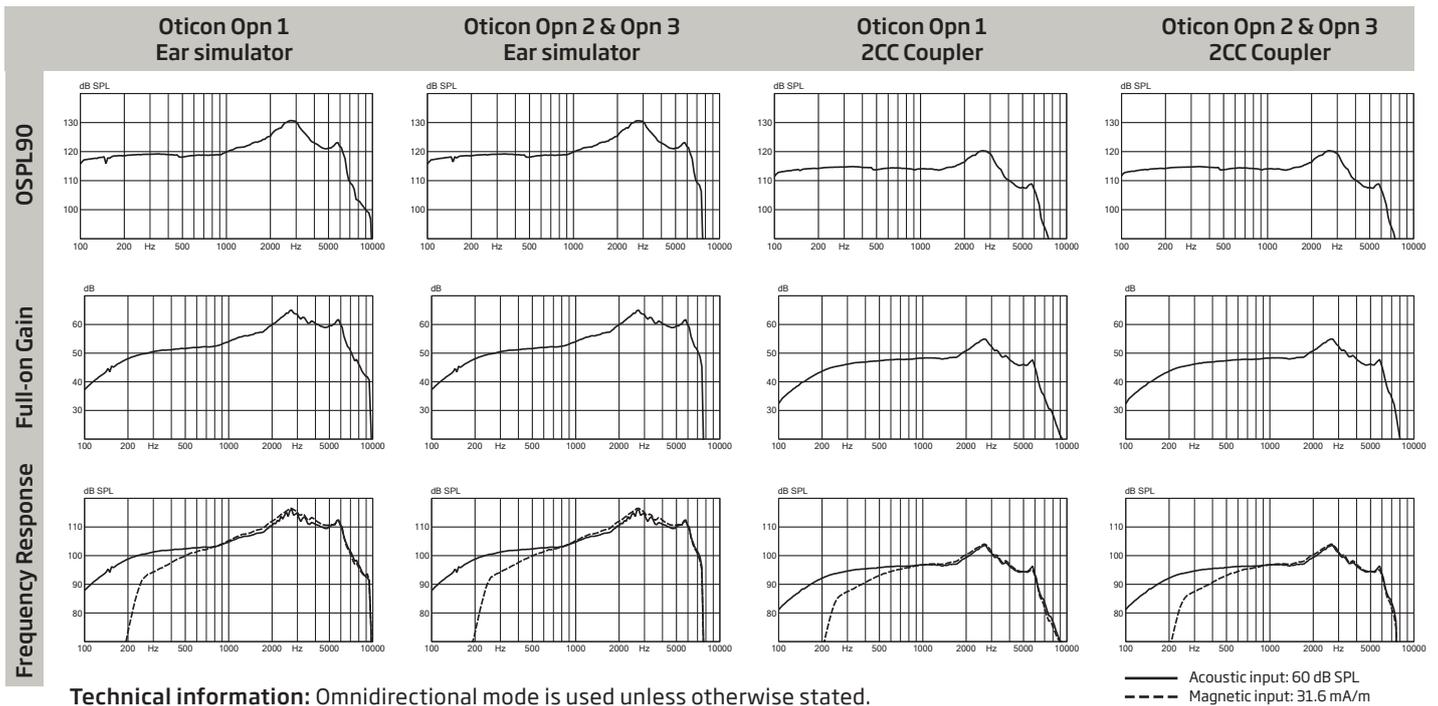


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn ITC ITE HS & FS 90		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		110-9500	110-7500	110-7500	100-7900	100-7500	100-7500
OSPL90	Peak	131 dB SPL			120 dB SPL		
	1600 Hz	123 dB SPL			115 dB SPL		
	HFA-OSPL90	124 dB SPL			116 dB SPL		
Full-on gain*	Peak	65 dB			55 dB		
	1600 Hz	57 dB			48 dB		
	HFA-FOG	58 dB			50 dB		
Reference test gain		48 dB			39 dB		
Telecoil output (1600 Hz)	1 mA/m field	87 dB SPL			-		
	10 mA/m field	107 dB SPL			-		
	SPLITS L/R	-			96/96 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			< 2 %		
	800 Hz	2 %			< 2 %		
	1600 Hz	2 %			< 2 %		
Equivalent input noise level	Omni	18 dB SPL			15 dB SPL		
	Dir	28 dB SPL			27 dB SPL		
Battery consumption**	Typical	1.8 mA			1.8 mA		
	Quiescent	1.7 mA			1.7 mA		
Battery life, calculated, hours 312 and 13***		100 / 175			100 / 170		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 20/12/6 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.

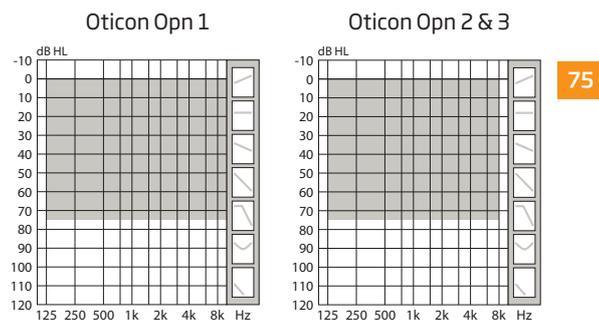
\*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



<b>Operating conditions</b> Temperature: +1°C to +40°C  Relative humidity: 5% to 93%, non-condensing	<b>Storage and transportation conditions</b> Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.  Temperature: -25°C to +60°C Relative humidity: 5% to 93%, non-condensing
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# Technical data sheet

OTICON | **Opn**  
IIC 75



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
Speech Understanding	OpenSound Navigator™	Level 1	Level 2	Level 3
	Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Soft Speech Booster LX	•	•	•
	Speech Rescue™ LX	•	•	•
Sound Quality	Clear Dynamics	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
Listening Comfort	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
Personalization & Optimizing Fitting	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
	Acoustic Notifications	•	•	•
Battery life, hours**	70-80	70-80	70-80	

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 10 - IEC PR70.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels.

- Default
- Not included



OpenSound Navigator™ continuously analyzes the environment and attenuates the disturbing noise.

Oticon Opn is built on the Velox™ platform, providing frequency resolution in 64 channels (Opn 1).

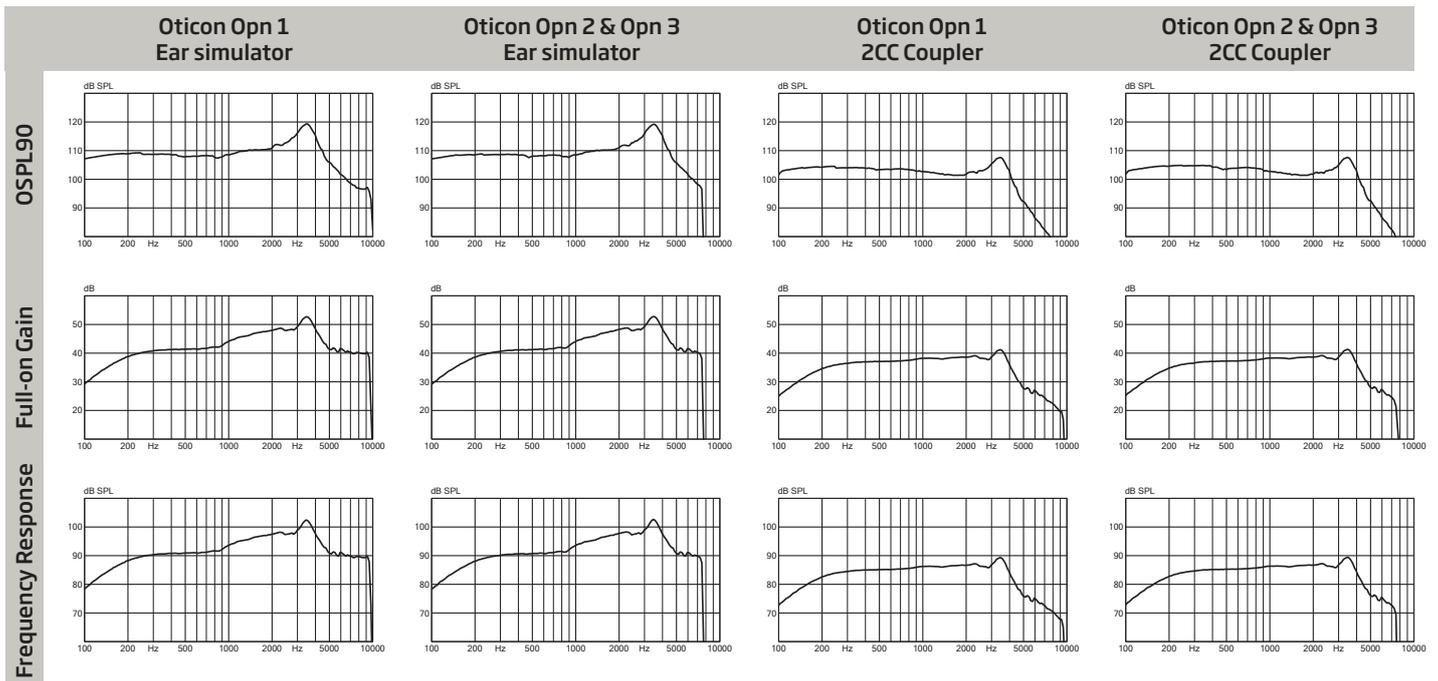
Fully programmable with updatable firmware, the Velox platform is ready for the future.



IP68

Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn IIC 75		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-9500	100-7500	100-7500	100-9200	100-7500	100-7500
OSPL90	Peak	119 dB SPL			108 dB SPL		
	1600 Hz	110 dB SPL			102 dB SPL		
	HFA-OSPL90	111 dB SPL			102 dB SPL		
Full-on gain*	Peak	53 dB			41 dB		
	1600 Hz	47 dB			38 dB		
	HFA-FOG	46 dB			38 dB		
Reference test gain		37 dB			26 dB		
Telecoil output (1600 Hz)	1 mA/m field	-			-		
	10 mA/m field	-			-		
	SPLITS L/R	-			-		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	2 %			2 %		
	800 Hz	2 %			2 %		
	1600 Hz	3 %			2 %		
Equivalent input noise level		19 dB SPL			18 dB SPL		
Battery consumption**	Typical	1.0 mA			1.1 mA		
	Quiescent	1.0 mA			1.0 mA		
Battery life, calculated, hours***		100			90		
IRIL (IEC 60118-13:2016)		700/1400/2000 MHz: 40/33/11 dB SPL					

- \* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.
- \*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of minimum 3 minutes.
- \*\*\* Based on the standardised battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

**Operating conditions**  
Temperature: +1°C to +40°C

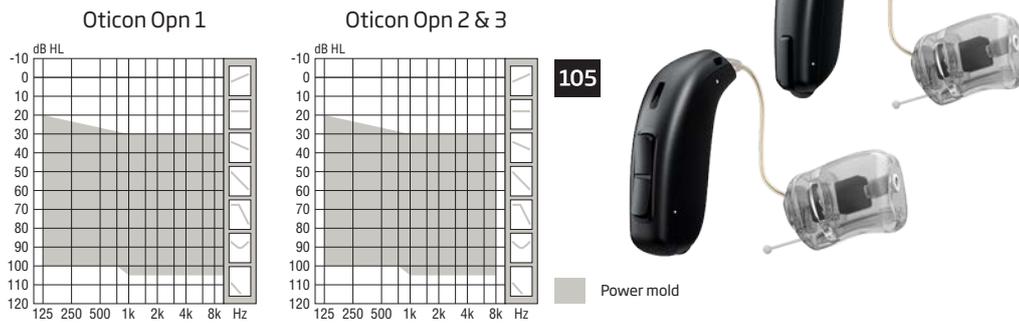
Relative humidity:  
5% to 93%, non-condensing

**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Temperature: -25°C to +60°C  
Relative humidity: 5% to 93%, non-condensing

# Technical data sheet



	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3	
<b>Speech Understanding</b>	OpenSound Navigator™	Level 1	Level 2	Level 3
	- Balancing power effect	100%	50%	50%
	- Max. noise removal	9 dB	5 dB	3 dB
	Speech Guard™ LX	Level 1	Level 2	Level 3
	Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
	Soft Speech Booster LX	•	•	•
<b>Sound Quality</b>	Speech Rescue™ LX	•	•	•
	Clear Dynamics	•	•	-
	Binaural Noise Management	•	•	-
	Fitting Bandwidth*	10 KHz	8 KHz	8 KHz
	Processing Channels	64	48	48
<b>Listening Comfort</b>	Bass Boost (streaming)	•	•	•
	Transient Noise Management	4 configurations	On/Off	On/Off
	Feedback shield LX	•	•	•
<b>Personalization &amp; Optimizing Fitting</b>	Wind Noise Management	•	•	•
	YouMatic™ LX	3 configurations	2 configurations	1 configuration
	Fitting Bands	16	14	12
	Multiple Directionality Options	•	•	•
	Adaptation Management	•	•	•
<b>Connecting to the World</b>	Oticon Firmware Updater	•	•	•
	Fitting Formulas	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0	VAC+, NAL-NL1 + 2, DSL v5.0
<b>Connecting to the World</b>	Stereo streaming (2.4 GHz)	•	•	•
	Oticon ON App	•	•	•
	ConnectClip	•	•	•
	Remote Control 3.0	•	•	•
	TV Adapter 3.0	•	•	•
<b>Connecting to the World</b>	Tinnitus SoundSupport™	•	•	•
	Expected battery life, hours**	45-65	45-65	45-65

\* Bandwidth accessible for gain adjustments during fitting

\*\* Battery size 312 - IEC PR41.

Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time).

## OTICON | Opn

miniRITE 105  
miniRITE-T 105

Oticon Opn™ miniRITE is a discreet design with a smart single push button.

Oticon Opn miniRITE-T is a discreet style based on the popular miniRITE. It features a telecoil and a convenient double push button for easy operation of the volume and program controls.

OpenSound Navigator™ provides better speech understanding by continuously analyzing the environment, balancing all sound sources and attenuating the dominating noise.

TwinLink™ wireless technology combines binaural communication and 2.4 GHz connectivity in stereo directly to external digital devices with very low power consumption.

Fully programmable with updatable firmware, the Velox™ platform is ready for the future.

Oticon Opn is a Made for iPhone® hearing aid.

Oticon Opn is built on the new Velox platform, providing frequency resolution in 64 channels (Opn 1).



Oticon Opn is compatible with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, 9.7-inch iPad Pro, 12.9-inch iPad Pro, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, and iPod touch (5th and 6th generation). Devices must be running iOS 9.3 or later. Please visit [www.oticon.com/connectivity](http://www.oticon.com/connectivity) for more details on compatibility.

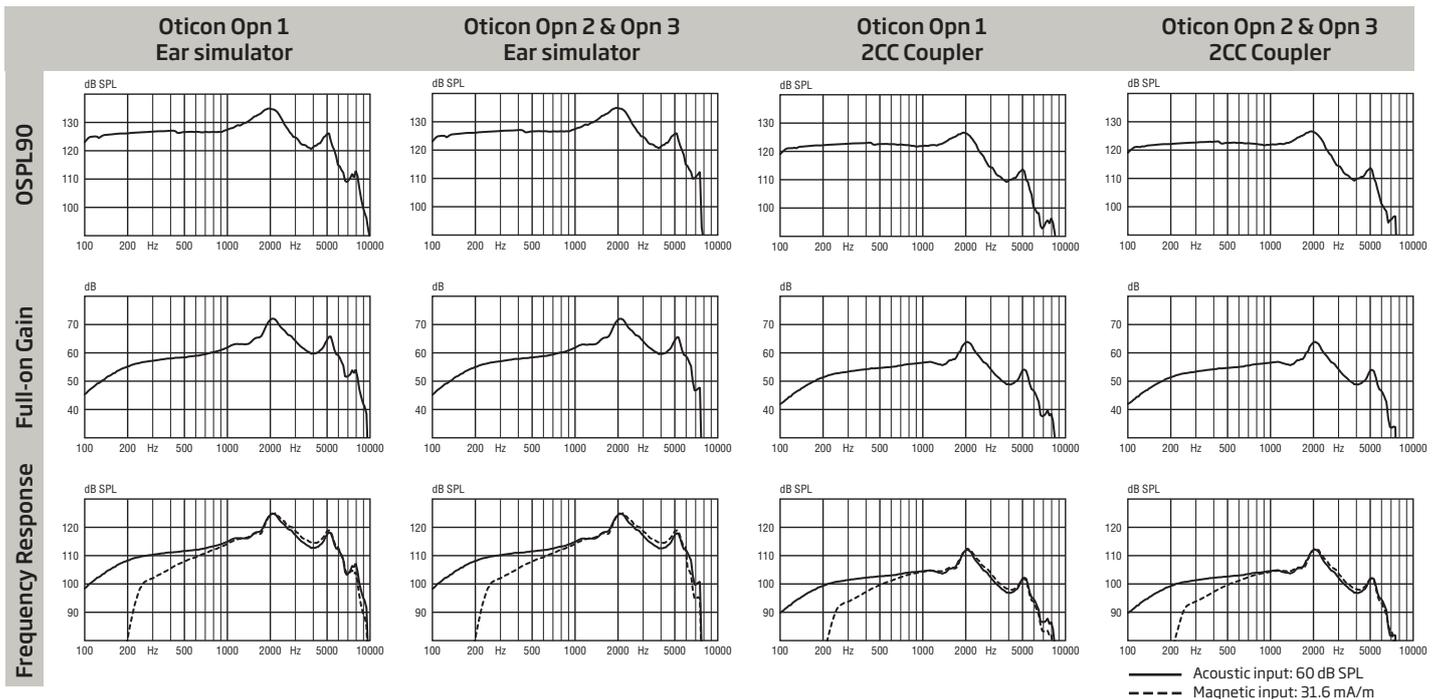


Technical data Measured according to		Ear Simulator IEC 60118-0:1983/AMD1:1994, IEC 60118-0:2015, IEC 60118-1:1995+AMD1:1998 CSV and IEC 60318-4:2010			ZCC Coupler ANSI S3.22:2014, IEC 60118-0:2015 and IEC 60318-5:2006		
Oticon Opn miniRITE/miniRITE-T		Opn 1	Opn 2	Opn 3	Opn 1	Opn 2	Opn 3
Frequency range Hz		100-8200	100-7500	100-7500	100-7800	100-6500	100-6500
OSPL90	Peak	135 dB SPL			127 dB SPL		
	1600 Hz	132 dB SPL			125 dB SPL		
	HFA-OSPL90	130 dB SPL			122 dB SPL		
Full-on gain*	Peak	72 dB			64 dB		
	1600 Hz	65 dB			57 dB		
	HFA-FOG	65 dB			57 dB		
Reference test gain		58 dB			46 dB		
Telecoil output (1600 Hz) (miniRITE-T)	1 mA/m field	96 dB SPL			-		
	10 mA/m field	116 dB SPL			-		
	SPLITS L/R	-			105/105 dB SPL		
Total harmonic distortion (Input 70 dB SPL)	500 Hz	< 2 %			< 2 %		
	800 Hz	< 2 %			< 2 %		
	1600 Hz	< 3 %			< 2 %		
Equivalent input noise level	Omni	18 dB SPL			18 dB SPL		
	Dir	28 dB SPL			29 dB SPL		
Battery consumption**	Typical	1.6 mA			1.7 mA		
	Quiescent	1.5 mA			1.5 mA		
Battery life, artificial measurement, hours***		110			105		
IRIL (IEC 60118-13:2011) miniRITE		800/1400/2000 MHz: 31/<16/<16 dB SPL					
IRIL (IEC 60118-13:2016) miniRITE-T		700/1400/2000 MHz: 38/18/39 dB SPL					

\* Measured with the gain control of the hearing aid set to its full-on position minus 20 dB and with an input SPL of 70 dB. This is to obtain a gain response equal to the full-on gain response from e.g. IEC 60118-0+A1:1994 but without influence of feedback.

\*\* Battery current is measured according to IEC 60118-0:1983/AMD1:1994 §7.11, IEC 60118-0:2015 §7.7 and ANSI S3.22:2014 §6.13 after a settling time of a minimum of 3 minutes.

\*\*\* Based on the standardized battery consumption measurement (IEC 60118-0:1983/AMD1:1994). The actual battery life depends on battery quality, use pattern, active feature set, hearing loss and sound environment.



Technical information: Omnidirectional mode is used unless otherwise stated.

**Operating conditions**

Temperature: +1°C to +40°C

Relative humidity:

5% to 93%, non-condensing

**Storage and transportation conditions**

Temperature and humidity should not exceed the following limits for extended periods during transportation and storage.

Temperature: -25°C to +60°C

Relative humidity: 5% to 93%, non-condensing

**Instrument warning**

The maximum output capability of the hearing instrument may exceed 132 dB SPL (IEC 711). Special care should be exercised in selecting and fitting the instrument as there may be risk of impairing the remaining hearing of the hearing instrument user.