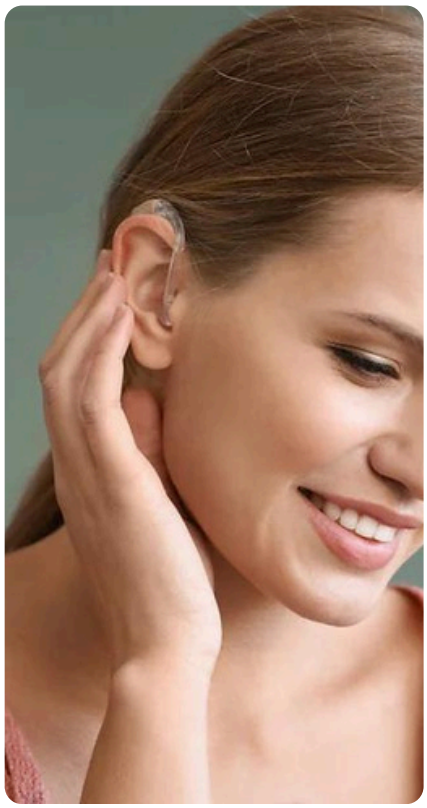
Professional Hearing Solutions

# Latest Hearing Aids







# DATA SHEET

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# Orion C&G RIC

Data Sheet

200 100 75 50




**S-Receiver**

- 45 dB / 108 dB SPL (2 ccm coupler)
- 56 dB / 119 dB SPL (Ear simulator)

**M-Receiver**

- 60 dB / 119 dB SPL (2 ccm coupler)
- 70 dB / 129 dB SPL (Ear simulator)

**P-Receiver**

- 70 dB / 124 dB SPL (2 ccm coupler)
- 80 dB / 134 dB SPL (Ear simulator)

**HP-Receiver**

- 75 dB / 130 dB SPL (2 ccm coupler)
- 82 dB / 138 dB SPL (Ear simulator)

Data sheet also applicable for Orion C&G RIC sDemo

# Orion C&G RIC | 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 | | — | 109 dB SPL | — | 123 dB SPL |
| OSPL 90 (peak) | | 108 dB SPL | 119 dB SPL | 119 dB SPL | 129 dB SPL |
| HFA OSPL 90 | | 102 dB SPL | — | 114 dB SPL | — |
| **Full-on gain** | | | | | |
| FOG at 1.6 kHz | | — | 44 dB | — | 56 dB |
| FOG (peak) | | 45 dB | 56 dB | 60 dB | 70 dB |
| HFA FOG | | 37 dB | — | 51 dB | — |
| Reference test gain | | 25 dB | 34 dB | 37 dB | 48 dB |
| **Frequency, noise and directivity** | | | | | |
| Frequency range | 200, 100, 75, 50 | 100 – 8200 Hz | 100 – 8300 Hz | 100 – 8200 Hz | 100 – 8300 Hz |
| Equivalent input noise | | 18 dB SPL | 22 dB SPL | 18 dB SPL | 23 dB SPL |
| Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz | | 1 / 1 / 1 / 1 % | 1 / 1 / 2 / — % | 1 / 1 / 1 / 1 % | 1 / 3 / 1 / — % |
| Tinnitus noiser broadband | 30 | 65 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 35 h | | up to 35 h | |
| Battery runtime (incl. streaming) | | — | | — | |
| **Cellphone compatibility** | | | | | |
| Microphone mode | | 0.65 – 0.96 GHz<br>1.4 – 2.7 GHz | | 0.65 – 0.96 GHz<br>1.4 – 2.7 GHz | |
| Telecoil mode | | — | | — | |

— not applicable

Refer to section “Further information” for additional information on the values.

# Orion C&G RIC | Technical Data

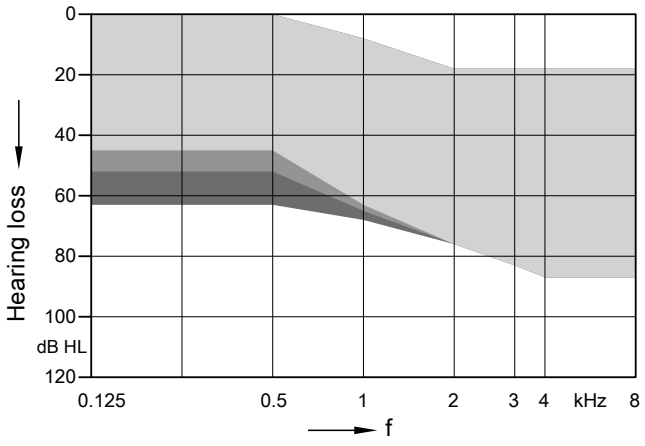
| Type | P-Receiver | | HP-Receiver | |
|---|---|---|---|---|
| | 2 ccm coupler | Ear simulator | 2 ccm coupler | Ear simulator |
| **Output sound pressure level** | | | | |
| OSPL 90 at 1.6 kHz | — | 128 dB SPL | — | 136 dB SPL |
| OSPL 90 (peak) | 124 dB SPL | 134 dB SPL | 130 dB SPL | 138 dB SPL |
| HFA OSPL 90 | 120 dB SPL | — | 125 dB SPL | — |
| **Full-on gain** | | | | |
| FOG at 1.6 kHz | — | 70 dB | — | 82 dB |
| FOG (peak) | 70 dB | 80 dB | 75 dB | 82 dB |
| HFA FOG | 63 dB | — | 68 dB | — |
| Reference test gain | 43 dB | 53 dB | 48 dB | 61 dB |
| **Frequency, noise and directivity** | | | | |
| Frequency range 200, 100, 75, 50 | 100 – 7800 Hz | 100 – 8100 Hz | 100 – 7700 Hz | 170 – 5300 Hz |
| Equivalent input noise | 16 dB SPL | 19 dB SPL | 18 dB SPL | 12 dB SPL |
| Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz | 1 / 2 / 1 / 1 % | 3 / 3 / 2 / — % | 1 / 1 / 1 / 1 % | 1 / 2 / 1 / — % |
| Tinnitus noiser broadband 30 | 75 dB SPL | — | 85 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 35 h | | up to 35 h | |
| Battery runtime (incl. streaming) | — | | — | |
| **Cellphone compatibility** | | | | |
| Microphone mode | 0.65 – 0.96 GHz<br>1.4 – 2.7 GHz | | 0.65 – 0.96 GHz<br>1.4 – 2.7 GHz | |
| Telecoil mode | — | | — | |

— not applicable

Refer to section “Further information” for additional information on the values.

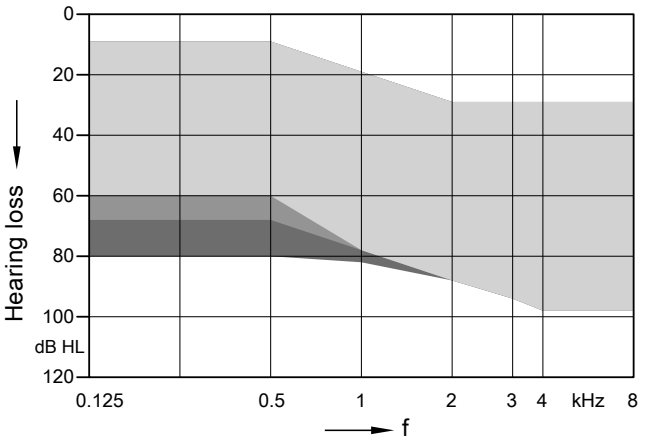
# Orion C&G RIC | Fitting range

## S-Receiver



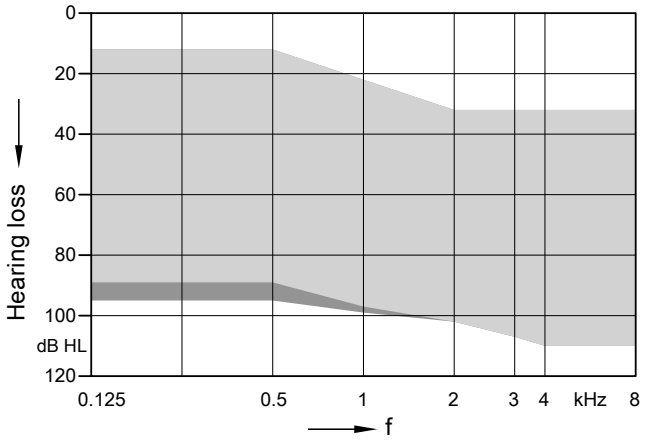

Open Click Domes
\+ Closed Click Domes
\+ + Click Mold (no vent)

## M-Receiver



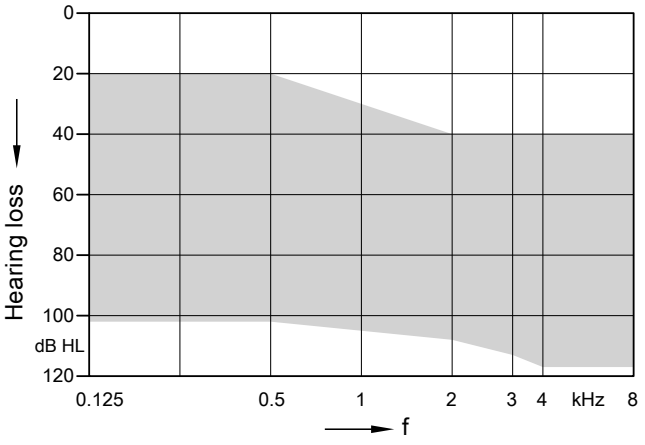

Open Click Domes
\+ Closed Click Domes
\+ + Click Mold (no vent)

## P-Receiver




Double Click Domes
\+ Click Mold (no vent)

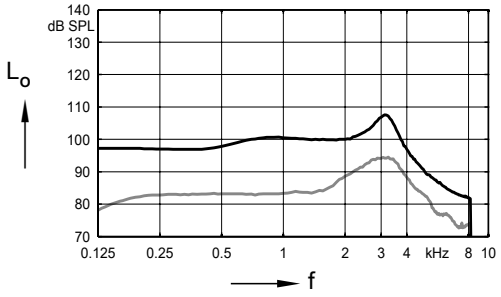
## HP-Receiver




Custom Shell (no vent)

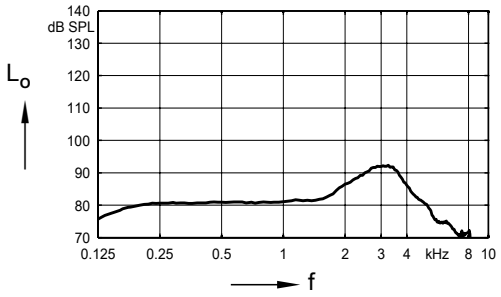
# S-Receiver (Closed Click Domes) | Basic Data

## 2 ccm coupler



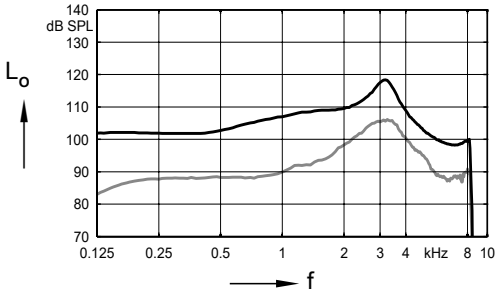

**Max. Output sound pressure level ($L_I$ = 90 dB)**

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



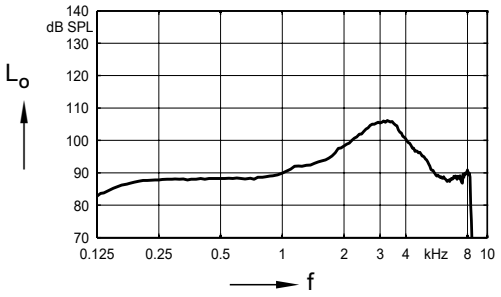

**Frequency response ($L_I$ = 60 dB)**

## Ear simulator




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

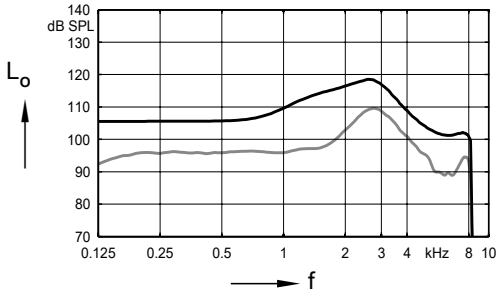
**Full-on gain ($L_I$ = 50 dB)**




**Basic acoustic response ($L_I$ = 60 dB)**

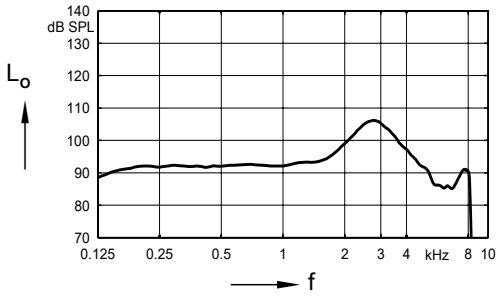
# M-Receiver (Closed Click Domes) | Basic Data

## 2 ccm coupler



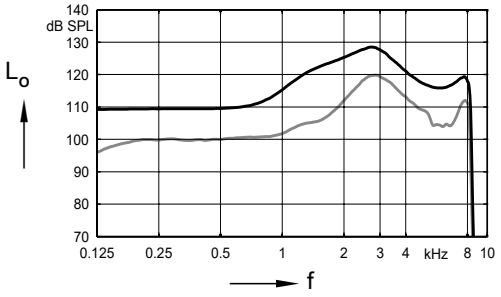

**Max. Output sound pressure level ($L_I$ = 90 dB)**

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



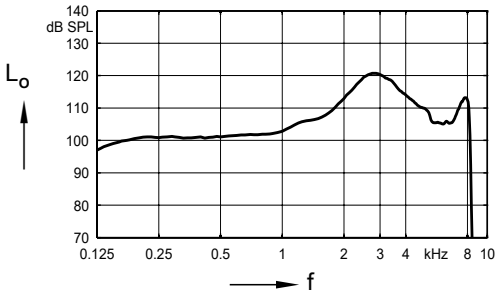

**Frequency response ($L_I$ = 60 dB)**

## Ear simulator




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

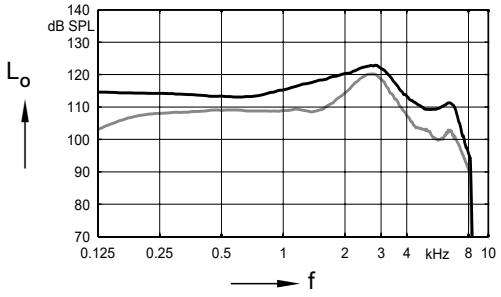
**Full-on gain ($L_I$ = 50 dB)**




**Basic acoustic response ($L_I$ = 60 dB)**

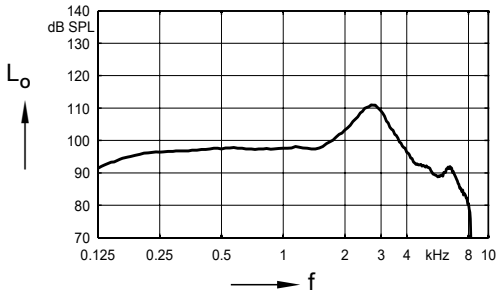
# P-Receiver (Click Mold) | Basic Data

## 2 ccm coupler



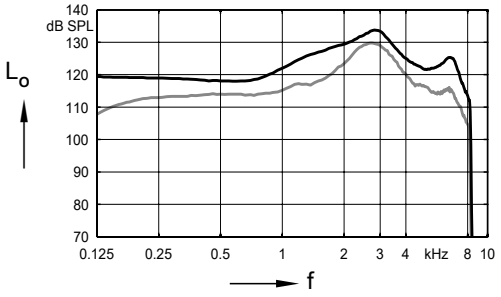

**Max. Output sound pressure level ($L_I$ = 90 dB)**

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



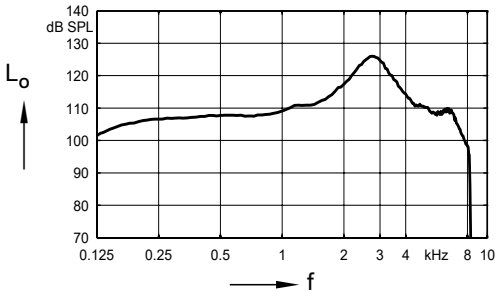

**Frequency response ($L_I$ = 60 dB)**

## Ear simulator




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

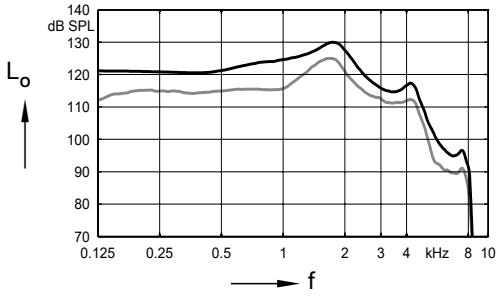
**Full-on gain ($L_I$ = 50 dB)**




**Basic acoustic response ($L_I$ = 60 dB)**

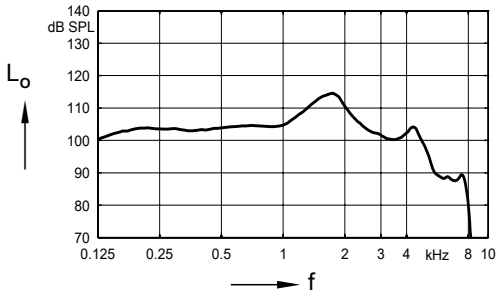
# HP-Receiver (Custom Shell) | Basic Data

## 2 ccm coupler



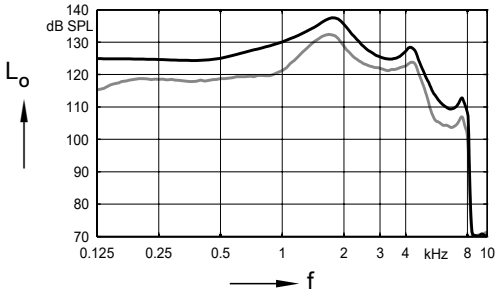

**Max. Output sound pressure level ($L_I$ = 90 dB)**

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



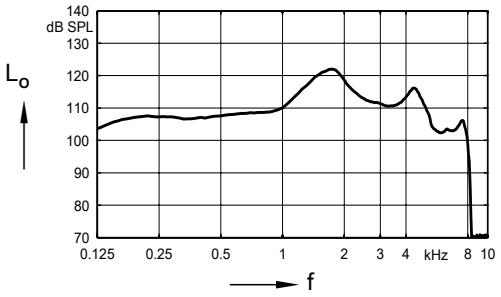

**Frequency response ($L_I$ = 60 dB)**

## 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)**

# Orion C&G P T | Further information

## Abbreviations

The following abbreviations are used in this data sheet:

| | |
|---|---|
| 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 Simulated 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 |
| ASHA | Audio Streaming for Hearing Aids |

## Standards and additional information

- All measurements with the 2 ccm coupler were performed according to ANSI S3.22:2014 and EN 60118-0:2015 if applicable.
- All measurements with an ear simulator were performed according to EN 60118-0:1993 + A1:1995 and to DIN 45605 (frequency range) if applicable.
- All Cellphone Compatibility measurements were performed according to EN IEC 60118-13:2020 and ANSI C63.19:2019.
- Cellphone Compatibility definition: It is expected that the hearing aid user can effectively use a compliant wireless device held in a talking position at the ear. Maximum achievable Cellphone Compatibility range: 0.65 – 0.96 GHz and 1.4 – 2.7 GHz.
- 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 aids 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 audio streaming from phone to hearing aid and from hearing aid to phone are considered.
- The following acoustic connections / ear pieces were used:
  - S-Receiver Unit and M-Receiver Unit: Closed Click Domes
  - P-Receiver Unit: Click Mold
  - HP-Receiver Unit: Custom Shell

## 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.

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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.