

Technical Datasheet

Peltor™ Optime™ II



Product Description

The Peltor Optime II range of passive earmuffs is available in headband, neckband, foldable or helmet mounted versions. These products are designed to provide a moderate to high level of attenuation that meets the needs of many industrial applications where high levels of noise may be encountered.

When correctly selected and worn these products help reduce exposure to hazardous levels of noise and loud sounds.

The helmet mounted version is designed to fit a wide range of industrial safety helmets (see below for further details).

NOTE: Two options are available in the Optime II range; high visibility and dielectric.

Key Features

- Modern, stylish slim line cup design
- Liquid sealing rings for improved comfort
- Unique low profile headband design helps maintain constant pressure thus providing confidence in protection
- Large space inside cup helps reduce moisture and heat build-up
- Soft wide cushions help reduce pressure around the ears and improve comfort and wearability
- Easy to replace cushions and inserts help keep them hygienically clean
- Easy to understand attenuation symbol to help ensure correct product selection
- Helmet mounted version fits directly to many industrial safety helmets without the need for an adapter.

Helmet mounted approved combination:

| Helmet Manufacturer | Model | Combination size range according to EN352-3 | |
|---------------------|------------------|---|------------------|
| | | P3 Adaptor | H520 (Optime II) |
| 3M | 1465 | E | NL |
| Auboueix | Brennus | F | SNL |
| Auboueix | Fondelec | F | SNL |
| Auboueix | Iris | E | NL |
| Auboueix | Iris 2 | E | NL |
| Sofop Taliaplast | Oceanic | E | NL |
| Sofop Taliaplast | Opus | E | NL |
| Berendsen Safety | Balance HD | N | SNL |
| Centurion | 1125/ARCO Plus | H | SNL |
| Centurion | 1100/ARCO Type 2 | H | SNL |
| Centurion | 1540/ARCO | A | NL |
| Evert Larsson | Robust | E | SNL |
| Evert Larsson | Balance | E | NL |
| Evert Larsson | Balance AC | E | NL |
| Kemira | Top Cap | A | SNL |
| LAS | LP2002 | E | SNL |
| LAS | LP2006 | E | SNL |
| MSA | Super V-Gard II | E | SNL |
| MSA | V-Gard | E | SNL |
| Peltor | G2000 | K,E | SNL |
| Peltor | G22 (Basic Set) | E | SNL |

*Protector Style 300 includes all 300-versions of this helmet.

| Helmet Manufacturer | Model | Combination size range according to EN352-3 | |
|---------------------|--------------------------|---|------------------|
| | | P3 Adaptor | H520 (Optime II) |
| Peltor | G3000 | E | SNL |
| Petzl | Vertex | E | SNL |
| Protector | Style 300* | E | SNL |
| Protector | Style 600 | G | SNL |
| Protector | Tuffmaster II | E,G | NL |
| Romer | Bravo 2 Nomaz | B | SNL |
| Romer | Marcus Top 2 Atlas Nomaz | B | SNL |
| Romer | N2 Atlas Nomaz | BB | SNL |
| Romer | Profi Expo | E | SNL |
| Romer | Profi Nomaz | E | SNL |
| Romer | Top Expo Atlas | B | SNL |
| Schubert | BEN | BB | SNL |
| Schubert | BER80/WPC80 | EA | SNL |
| Schubert | BER S | E | SNL |
| Schubert | BOP R | B | SNL |
| Schubert | PIONIER | B | SNL |
| Schubert | SH91/WP91 | EB | SNL |
| Schubert | SW1 | EB | NL |
| Uvex | Airwing | E | SNL |
| Voss | Inap 88 | E | SNL |
| Voss | Inap Master | E | NL |
| Voss | Inap Star | E | NL |
| Voss | Inap PCG | G | NL |

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Applications

The Peltor Optime II range of earmuffs is ideal for protection against noise arising from a wide range of applications in the workplace and leisure activities.

Examples of typical applications include:-

- Airports
- Automotive
- Cement manufacture Construction
- Chemical & pharmaceutical manufacture
- Construction
- Heavy engineering
- Metal processing
- Printing
- Textile manufacture
- Woodworking

Standard & Approval

The Peltor Optime II range of earmuffs has been tested and CE approved against the European Standard EN352- 1:1993 (headband, neckband and foldable version) and EN352-3:2002 (helmet mounted version). These products meet the Basic Safety Requirements as laid out in Annex II of the European Community Directive 89/686/EEC. These products have been examined at the design stage by the Finnish Institute of Occupational Health (FIOH), Topeliuksenkatu 41aA, FIN- 00250 Helsinki, Finland (Notified Body number 0403).

Materials

The following materials are used in the manufacture of this product.

| | Component | Material |
|---|----------------------------|---|
| Headband, Neckband and Foldable version | Headband/Neckband/Foldable | Stainless Steel Wire, PVC, Acetal |
| | Headband padding | PVC |
| | Cups | ABS |
| | Inserts | Polyether |
| | Cushions | Polyether |
| | Cushion cover | PVC |
| Helmet mounted version | Helmet attachment arm | Stainless Steel Wire, PVC, Acetal, Polyamid |
| | Cups | ABS |
| | Inserts | Polyether |
| | Cushions | Polyether |
| | Cushion cover | PVC |

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Attenuation values

Optime II Headband Version (H520A)

| | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|
| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| Mf (dB) | 16.2 | 14.6 | 20.2 | 32.5 | 39.3 | 36.4 | 34.4 | 40.2 |
| sf (dB) | 1.9 | 1.6 | 2.5 | 2.3 | 2.1 | 2.4 | 4.0 | 2.3 |
| APVf (dB) | 14.3 | 13.0 | 17.7 | 30.2 | 37.2 | 34.0 | 30.4 | 37.9 |

SNR = 31dB H = 34dB M = 29dB L = 20dB



Optime II Neckband Version (H520B)

| | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|
| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| Mf (dB) | 15.9 | 14.7 | 20.4 | 32.3 | 39.6 | 36.2 | 35.4 | 40.2 |
| sf (dB) | 2.1 | 1.8 | 2.6 | 2.5 | 2.2 | 2.4 | 4.2 | 2.4 |
| APVf (dB) | 13.8 | 12.9 | 17.8 | 29.8 | 37.4 | 33.8 | 31.2 | 37.8 |

SNR = 31dB H = 34dB M = 29dB L = 20dB



Optime II Foldable Version (H520F)

| | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|
| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| Mf (dB) | 16.1 | 14.5 | 20.3 | 32.6 | 39.1 | 35.1 | 34.7 | 39.8 |
| sf (dB) | 2.0 | 1.8 | 2.6 | 2.4 | 2.5 | 2.3 | 2.7 | 2.5 |
| APVf (dB) | 14.1 | 12.7 | 17.7 | 30.2 | 36.6 | 32.8 | 32.0 | 37.3 |

SNR = 31dB H = 34dB M = 28dB L = 20dB



Optime II Helmet Mounted Version (H520P3)

| | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|
| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| Mf (dB) | 15.1 | 14.1 | 19.4 | 32.0 | 39.9 | 36.2 | 35.4 | 39.2 |
| sf (dB) | 2.1 | 2.3 | 2.7 | 2.7 | 2.4 | 2.6 | 4.4 | 2.6 |
| APVf (dB) | 13.0 | 11.8 | 16.7 | 29.3 | 37.5 | 33.6 | 31.0 | 36.6 |

SNR = 30dB H = 34dB M = 28dB L = 19dB



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Accessories/Replacement Parts

The cushions and inserts on the Optime range II can be replaced with the HY52 Hygiene Kit for improved comfort and reassured protection.

The HY100A and HY100A-01 Hygiene Pads can be placed on the cushions to help absorb moisture and sweat.

Key

APVf = Assumed Protection Value

Mf = Mean attenuation value

sf = Standard deviation

H = High-frequency attenuation value (predicted noise level reduction for noise with $L(C) - L(A) = -2\text{dB}$)

M = Medium-frequency attenuation value (predicted noise level reduction for noise with $L(C) - L(A) = +2\text{dB}$)

L = Low-frequency attenuation value (predicted noise level reduction for noise with $L(C) - L(A) = +10\text{dB}$)

SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, $L(C)$ in order to estimate the effective A-weighted sound pressure level inside the ear).



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