Technical Datasheet

Peltor™ Optime™ II

Product Description

The Peltor Optime II range passive earmuffs are available in headband, neckband, foldable or helmet mounted version. These products are designed to provide 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 helps reduce pressure around the ears and improves comfort and wearability
- Easy to replace cushions and inserts helps 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
Schuberth	BEN	BB	SNL
Schuberth	BER80/WPC80	EA	SNL
Schuberth	BER S	E	SNL
Schuberth	BOP R	B	SNL
Schuberth	PIONIER	B	SNL
Schuberth	SH91/WP91	EB	SNL
Schuberth	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 earmuffs are ideal for protection against noise arising from a wide range of applications in the workplace and leisure activity. 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 earmuffs are 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

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) = -2dB)

M = Medium-frequency attenuation value (predicted noise level reduction for noise with L(C) – L(A) = +2dB)

L = Low-frequency attenuation value (predicted noise level reduction for noise with L(C) – L(A) = +10dB)

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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