

Technical Data

Modular dynamic hearing protection

Serenity DP+ is a dynamic hearing protection system with level-dependent attenuation. It instantly dampens loud noises such as machine sounds or gun shots down to a comfortable level. Immediately after these noises dissipate, Serenity DP+ re-adjusts so that normal sounds such as conversations and warning signals can be heard as normal. Serenity DPC+ adds an integrated communication headset with boom microphone, which can be connected to most professional radios.

Serenity DP+

Features :

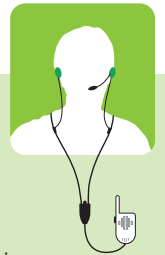
- Electronic, level-dependent protection
- Binaural microphones and speakers within earJacks for localization of warning signals
- Volume control for enhanced perception
- Custom molded (eShells) or generic ear shells
- Protection level verifiable with SafetyMeter
- Compatible with helmets, masks and glasses



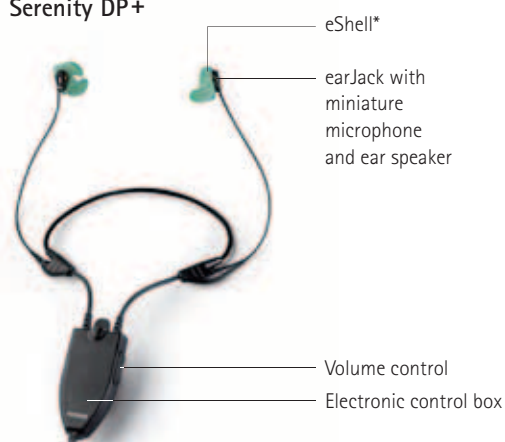
Serenity DPC+ (with communication)

Serenity DPC+ offers the same level-dependent hearing protection features as Serenity DP+, and :

- Communication headset integrated in the earJack
- Clear speech transmission – even in noise
- Excellent speech comprehension in noisy environments
- Connection to professional radios
- PTT integrated in the control box (wireless PTT optional)
- Uninterrupted hearing protection during calls



Serenity DP+



Serenity DPC+

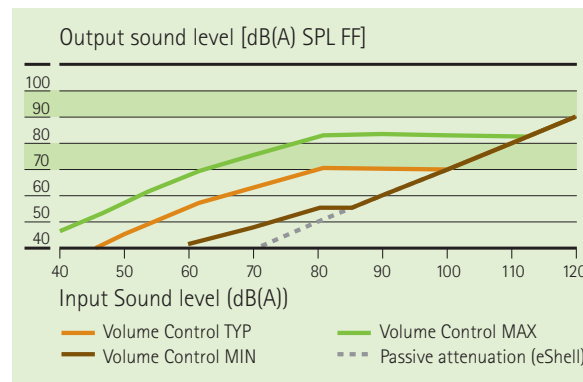


Serenity DP+ / DPC+

General Features

Weight	Serenity DP+ 61g Serenity DPC+ 113g
Misc	Unique user ID marking on each custom molded eShell Fixing clip (adjustable)
Optional	Metal detection (for eShells) Generic ear shells
	For 'Serenity DPC+ AC Radio' only: Tailorable neck cord and cable lengths Radio-specific connector Wireless PTT

Acoustic Gain Model



Hearing Protection Specifications (Serenity DP+/DPC+)

Serenity DP+ and DPC+ comply with EU directive 89/686/EEC and are tested and certified according to EN 352-7.

Passive attenuation	SNR = 24 dB (electronic attenuation switched off)
Level-dependent attenuation	H : 108 dB / M : 105 dB / L : 99 dB *

* High H, medium M and low L criteria levels at which in-ear sound pressure first exceeds 85 dB(A) with electronic attenuation switched on.

Technical Specifications

Serenity DP+ and Serenity DPC+	
Max. level of ambient sound at ear speaker	83 (± 2) dB(A) free field equivalent
Attack / Release time	0 ms / 200 ms
Volume control range	-15 dB - +12 dB vs. natural hearing
Battery size, supply voltage, life	LR03 (AAA), 1.2 V - 1.5 V, min. 200 h
Power consumption (internal battery)	Typ. 6 mA
Operational temperature range	-20°C ... +60°C
Housing category	IP 54
Cable pull force	50 N
Cord opening force (security break)	25 N
Electromagnetic compatibility (EMC)	EN 55022, EN 55024
Inflammability	EN 13819-1 ch5.6
Additional Serenity DPC+ specifications	
Incoming radio signal	Default: dual mono (in left and right ears). Optional: single side only (in left or right ear).
Max. level of radio signal at ear speaker	98 (± 2) dB(A) free field equivalent
Transmission microphone	Electret noise canceling (mountable on left or right ear shell)
Microphone sensitivity	-44 (± 3) dB re. 1 V/Pa at 1 kHz
Power consumption from radio	Typ. 10 mA @ 5 V / max. 30 mA @ 5 V
Radio supply voltage	2.6 V - 28 V

