

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 :

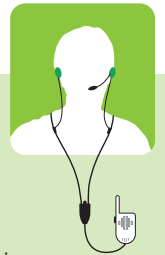
- Electronic, level-dependent protection
- Binaural microphones and speakers within earJacks for localization of warning signals
- Volume control for enhanced perception
- Custom molded (eShells) or generic ear shells
- Protection level verifiable with SafetyMeter
- Compatible with helmets, masks and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



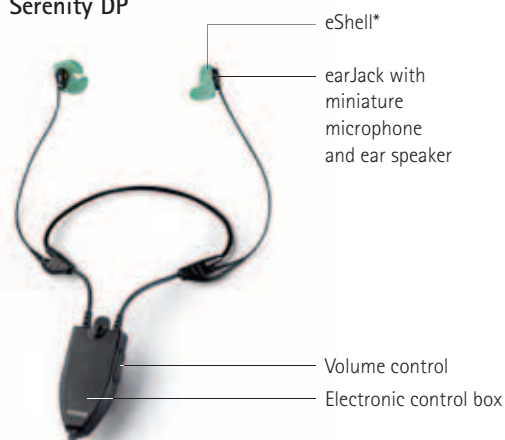
Serenity DPC (with communication)

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

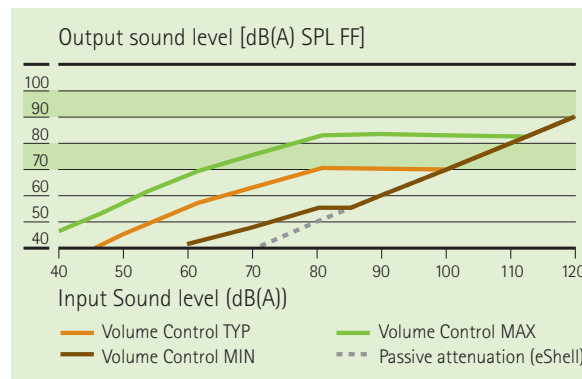


Serenity DP / DPC

General Features

Weight	Serenity DP	61g
	Serenity DPC	113 g
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

