

# Serenity DPC

The new top solution for dynamic hearing protection combined with communication



## Product Description

Serenity DPC is a dynamic hearing protection system with level dependent attenuation. Loud noises, like gun shots, crashes, industrial machines, etc. are instantaneously dampened to a comfortable level. Immediately after loud noises have dissipated, Serenity DPC readjusts, so that normal sounds (conversations, warning signals, etc.) can be heard.

Serenity DPC can be connected to many communication systems; enabling the user to communicate, even in the harshest environments. For use with portable radios, a rugged press-to-talk button is integrated into the system.

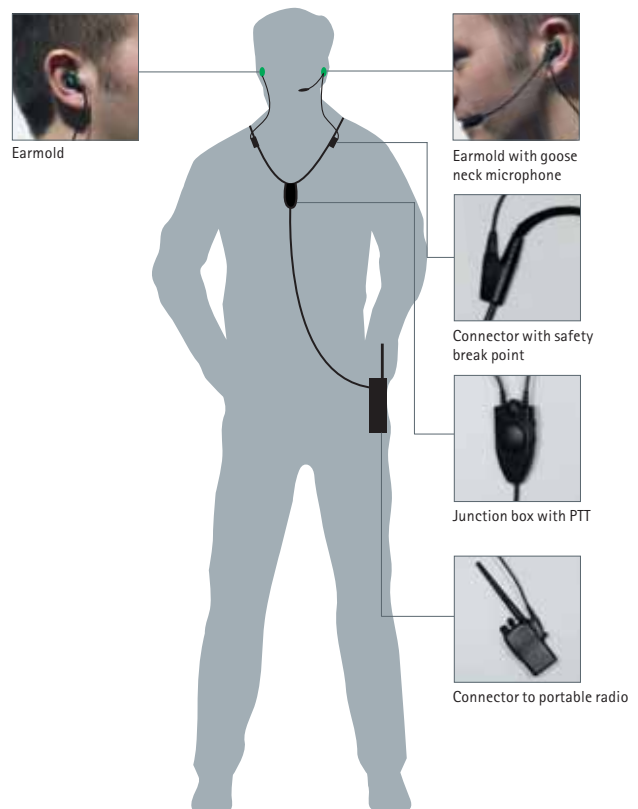
## Most important benefits

1. Dynamic, noise-dependent hearing protection
  - In quiet: full transparency to ensure ambient awareness
  - In noise: safe attenuation of noise levels
2. Miniature, binaural ear microphones for excellent localization of life-saving signals
3. Protection against constant and impulse noises, verifiable using the PAC system
4. Clear speech transmission – even in noise or during vigorous body movement
5. Flexible connectivity to most portable radios
6. Integrated push-to-talk button (PTT)
7. Rugged design for use in harsh environments
8. Powered by a radio system or standard AAA battery
9. Interchangeable ear molds for multiple system users
10. No interference with other protective equipment

## Typical fields of application

- Special intervention teams
- Special investigation organizations
- Rescue services
- Building and construction
- Exploration and mining
- Airports, traffic and logistics
- Recreational and military shooting
- Security firms and event control

Where impulse noises or unpredictable changes in noise levels occur and where ambient awareness and reliable communication is crucial.





## Certification

Phonak Serenity DPC hearing protection complies with EU directive 89/686/EEC for personal protective equipment and has been tested and approved according to EN 352-7:2002 for Hearing Protectors – General Requirements – Part 7: Ear-plugs with level-dependent attenuation.

Serenity DPC is in conformity with EN 55022:1998 + A1:2000 + A2:2003 class B and EN 55024:1998 + A1:2001 + A2:2003 implementing the provisions of the EMC directive, 89/336/EEC.

## Hearing Protection

Passive attenuation values for Serenity DPC hearing protection, according to EN 352-2:2002, i.e. when dynamic attenuation is switched off:

Frequency Hz	Mean Attenuation dB	Standard Deviation dB	Assumed Protection dB
125	21.9	5.2	16.7
250	21.9	5.2	16.7
500	21.1	5.8	15.3
1000	26.7	4.0	22.7
2000	32.7	3.5	29.2
4000	29.8	3.4	26.4
8000	31.7	4.7	27.0
<b>SNR = 24</b>	<b>L = 18</b>	<b>M = 20</b>	<b>H = 27</b>

Key: H High-frequency attenuation value  
 M Medium-frequency attenuation value  
 L Low-frequency attenuation value  
 SNR Single Number Rating attenuation value

Criteria levels for Serenity DPC hearing protection, according to EN 352-7:2002, i.e. when the dynamic attenuation is switched on:

H	108 dB
M	105 dB
L	98 dB

## Technical Specifications

Limitation of ambient sound	80(±2)dB(A) free field equivalent
Volume control range	-14dB ... +7dB vs. natural hearing
Sound level limitation for communication	95(±2)dB(A) free field equivalent
Transmission microphone Type	Electret, close talk, noise canceling, mountable on left or right ear mold
Microphone sensitivity	-44(±3)dB re. 1V/Pa at 1kHz
Microphone feed voltage	1.5 ... 10 V
Power consumption from radio	Typical 3.8mA
Radio supply voltage	3.4 ... 10 V
Power consumption, when running off the battery	Typical 2mA max 2.5mA
Battery size	LR03 (AAA)
Battery life time	min 500 h
Battery supply voltage	1.2 V ... 1.5 V
System weight	100 g
Housing category	IP 54
Drop test on concrete floor	5 drops from 1.8m
Cable pull force	50 N
Connector opening force	8 ... 16 N, 4000 cycles
Neck cord snapper opening force	12 ... 25 N, 4000 cycles
Operational temperature range	-20 ... +60°C
Inflammability as per EN 13819-1 ch. 5.6	Pass