



## Hearing Protection with flexible Microphone

Specification	Description	
<b>Overview</b>	Active Hearing Protection headset with built-in communication capabilities, including: <ul style="list-style-type: none"> <li>• Two ear muffs with padding and noise attenuation foam</li> <li>• Built-in, level dependent function with amplification volume adjustment</li> <li>• Ear cup height adjustment system for optimal wearing position</li> <li>• Flexible microphone attached to the left muff</li> <li>• <b>Downlead Cable with anti-tearing, NEXUS connecting plug</b></li> </ul>	
<b>Interoperability</b>	<ul style="list-style-type: none"> <li>• Operates with various Push-to-Talk (PTT) modules, such as MSA HandyCom, enabling connection to the PMR radio. Connection through a NEXUS type plug</li> </ul>	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: Noise cancelling electret, 100Hz-10kHz, sensitivity -61 dB (nominal) at 50% humidity</li> <li>• Loudspeaker: 32 Ω, 100Hz-20kHz, max power 100mW</li> <li>• Material: Cup: PC/ABS, Cushion: Synthetic leather</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions),</li> <li>• Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	390 g ± 10g (including batteries)	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Fully watertight – equivalent to IP67</li> <li>• SNR value : 26 dB / H=26 / M=23 / L=18 (attenuation data in appendix)</li> </ul>	
<b>Ordering Information</b>	Part number ( <i>when ordered separately from the helmet</i> ) <ul style="list-style-type: none"> <li>• GAY30103222123000X – Headset, Gallet F1XF, Hearing Protection, boom microphone</li> </ul>	
 <p>Headset general view</p>	 <p>Headset mounted inside the helmet</p>	 <p>Connecting plug, headset to PTT</p>
 <p>Ambient sound microphone</p>	 <p>Battery compartment</p>	 <p>Button (on/off and Volume +/-)</p>

## Hearing Protection with Bone conductive Microphone

Specification	Description	
<b>Overview</b>	Active Hearing Protection headset with built-in communication capabilities, including: <ul style="list-style-type: none"> <li>• Two ear muffs with padding and noise attenuation foam</li> <li>• Built-in, level dependent function with amplification volume adjustment</li> <li>• Ear cup height adjustment system for optimal wearing position</li> <li>• <b>Bone microphone</b></li> <li>• Download Cable with anti-tearing, NEXUS connecting plug</li> </ul>	
<b>Interoperability</b>	Operates with various Push-to-Talk (PTT) modules, such as MSA HandyCom, enabling connection to the PMR radio. Connection through a NEXUS type plug	
<b>Technical specifications</b>	<ul style="list-style-type: none"> <li>• Microphone: Accelerometer, 100 Hz – 10 kHz, Sensitivity 1 V / 0.5G</li> <li>• Loudspeaker: 32 Ω, 20Hz-3kHz, max power 100mW</li> <li>• Material: Cup: PC/ABS, Cushion: Synthetic leather</li> <li>• Down lead Cable: Fire retardant, shielded cable</li> <li>• Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions),</li> <li>• Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L</li> <li>• Operation Temperature: -20°C to +65°C, humidity &lt; 98%</li> </ul>	
<b>Weight</b>	370 g ± 10g (including batteries)	
<b>Approval</b>	<ul style="list-style-type: none"> <li>• EMC performance: ESD/EMI: 10 V/m</li> <li>• Fully watertight – equivalent to IP67</li> <li>• SNR value : 26 dB / H=26 / M=23 / L=18 (attenuation data in appendix)</li> </ul>	
<b>Ordering Information</b>	Part number (when ordered separately from the helmet) <ul style="list-style-type: none"> <li>• GAY30103232123000X – Headset, Gallet F1XF, Hearing Protection, bone conductive</li> </ul>	
 <p><i>Headset general view</i></p>	 <p><i>Headset mounted in helmet</i></p>	 <p><i>Connecting NEXUS plug, headset to PTT</i></p>
 <p><i>Ambient sound microphone</i></p>	 <p><i>Battery compartment</i></p>	 <p><i>Button (on/off and Volume +/-)</i></p>

## Appendix : Attenuation Data

The tests were made for the 3 following references :

**GA010002E3X – Active listening headset, Gallet F1XF**

**GA010002D3X – Hearing Protection with boom microphone**

**GA010002C3X – Hearing protection with bone conductive microphone (replaced by GAY30103232123000X)**

When we made the tests, the hearing protection with the new bone conductive microphone (**GAY30103232123000X**) did not yet exist but the ear muffs are the same (only the bone conductive sensor changed) so the values of attenuation data should be comparable with the ones shown below.

Tested to EN352-3:2002, §4.3.12; EN 13819-1, § 4.1.3.10, EN 13819-2, §4.2

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Mean attenuation, $M_f$ (dB)	18,4	18,4	17,9	24,4	28,5	26,8	48,6	49,6
Stand. Deviation, $s_f$ (dB)	3,6	3,8	2,8	2,7	2,8	4,0	2,4	2,4
APV ( $M_f - s_f$ ) (dB)	14,8	14,6	15,1	21,7	25,7	22,8	46,2	47,2

SNR=26 dB; H=26 dB, M=23 dB, L=18 dB