MSA
The Safety Company

Flexible Microphone Headset, Gallet F1 XF helmet

Specification	Description
Overview	Communication headset for integration in Gallet F1 XF fire helmet • One or two loudspeakers, in plastic housing with mounting clips. • Flexible microphone, adjustable in length (80 mm) to optimize position in front of the mouth or in front of the speech diaphragm (BA face piece) • Downlead Cable with anti-tearing, LEMO connecting plug (green cover).
Interoperability	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through an anti-tearing LEMO plug with color codification. • PTT module with Yellow connector: non ATEX system • PTT module with Green connector: ATEX system (for use with approved ATEX radios only)
Technical specifications	• Microphone: noise cancelling Electret, 100Hz-10kHz, distortion < 3% • Loudspeaker: 32 Ω, 20 Hz – 3 kHz, max power 100 mW • Amplifier: adjustable gain (0 to 26 dB), 300 Hz – 3 kHz Nominal output 50 mV RMS, Harmonic distortion 5% • Down lead Cable: Fire retardant, shielded cable • Housing: Polyamide (PA6), Fire resistant (V0) • Operation Temperature: -20°C to +65°C, humidity < 98%
Weight	• Standard version (1 speaker): 100 ± 10g • Premium version (2 speakers): 125 ± 10g
Approval	• EMC performance: ESD/EMI: 10 V/m • Ingress Protection testing: IP56 (tested inside the helmet) • ATEX (when used with an ATEX certified PTT module) • ATEX level: II 2G Ex ia IIC T4
Ordering Information	Part number (when ordered separately from the helmet) • GA010002B3X – Headset, Gallet F1XF, Flexible Microphone 1 Speaker • GA010002B3AX – Headset, Gallet F1XF, Flexible Microphone 2 Speakers

Headset, 1 speaker

Headset, 2 speakers

Microphone standby position

Headset, in-use position

Headset, standby position

Connecting plug, headset to PTT

1

Bone conductive Microphone Headset, Gallet F1 XF helmet

Specification	Description
Overview	Communication headset for integration in Gallet F1 XF helmet • One or two loudspeakers, in housing with mounting clips. • Bone conductive microphone, inserted in the front headband padding. • Downlead Cable with anti-tearing, LEMO connecting plug (blue cover).
Interoperability	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through an anti-tearing LEMO plug with color codification. • PTT module with Red connector: non ATEX system • PTT module with Blue connector: ATEX system (for use with approved ATEX radios only)
Technical specifications	• Microphone: Accelerometer, 20 Hz – 20 kHz, Sensitivity 1 mV / mG • Loudspeaker: 32 Ω, 20 Hz – 3 kHz, max power 100 mW • Down lead Cable: Fire retardant, shielded cable • Housing: Polyamide (PA6), Fire resistant (V0) • Operation Temperature: -20°C to +65°C, humidity < 98%
Weight	• Standard version (1 speaker): 75 ± 10g • Premium version (2 speakers): 100 ± 10g
Approval	• EMC performance: ESD/EMI: 10 V/m • Ingress Protection testing: IP56 (tested inside the helmet) • ATEX (when used with an ATEX certified PTT module) • ATEX level: II 2G Ex ia IIC T4
Ordering Information	Part number (when ordered separately from the helmet) • GA010002A3X – Headset, Gallet F1XF, Bone conductive Microphone 1 Speaker • GA010002A3AX – Headset, Gallet F1XF, Bone conductive Microphone 2 Speakers

Headset, 1 speaker

Headset, 2 speakers

Headset mounted inside helmet (chinstrap not shown)

Bone conductive sensor (inserted in headband padding)

Left Speaker module (optional)

Connecting plug, headset to PTT

2

Push-to-Talk Module

Specification	Description
Overview	Push-to-Talk Module (PTT) including: • Housing with large size, easy to handle push button • Downlead cable to the PMR radio with connection plug • Headset connection cable with anti-tearing LEMO plug • Belt / Strap attachment through clip of pincer
Interoperability	Operates with an MSA Headset, in particular helmet mounted headsets for Gallet F1 XF fire helmets. • PTT with Yellow connector: for flexible microphone headsets • PTT with Green connector: for flexible microphone headset, ATEX (for use with ATEX radios only) • PTT with Red connector: for Bone conductive microphone headsets • PTT with Blue connector: for Bone conductive microphone headset, ATEX (for use with ATEX radios only)
Technical specifications	• Amplifier: Adjustable gain (0-26 dB), bandwidth 300Hz-3kHz • Nominal output: 50mV RMS, harmonic distortion 5% • Housing Material: High Temperature Thermoplastic (PA) • Operation Temperature: -20°C to +65°C, humidity < 98%
Weight	• Pincer version: approx. 200 g • Clip Version: approx. 160 g *Note: Weight may vary depending on radio plug and cable type*
Approval	• EMC performance: ESD/EMI: 10 V/m • On selected models, compliance to ATEX directive • ATEX (when used with an ATEX certified PTT module, blue or green plug) • ATEX level: II 2G Ex ia IIC T4
Ordering Information	Ordering information depends on type of headset and type of radio. *Please consult MSA for exact configuration.*

PTT Module, with headset plug (left) and radio plug (right) – Shown with Motorola GP 3x0 series connector

PTT module, pincer version (also available with belt clip)

Headset connecting plug Color varies with configuration

Radio connecting plug Ex: Motorola GP3x0 series

3

Hearing Protection with flexible Microphone

Specification	Description
Overview	Active Hearing Protection headset with built-in communication capabilities, including: • Two ear muffs with padding and noise attenuation foam • Ear cup height adjustment system for optimal wearing position • Flexible microphone attached to the left muff • Downlead Cable with anti-tearing, LEMO connecting plug (green).
Interoperability	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through LEMO plug with color codification. • PTT module with Yellow connector: non ATEX system • PTT module with Green connector: ATEX system (for use with approved ATEX radios only)
Technical specifications	• Microphone: Noise cancelling electret, 100Hz-10kHz, sensitivity -61 dB (nominal) at 50% humidity • Loudspeaker: 32 Ω, 100Hz-20kHz, max power 100mW • Material: Cup: PC/ABS, Cushion: Synthetic leather • Down lead Cable: Fire retardant, shielded cable • Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions), • Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L • Operation Temperature: -20°C to +65°C, humidity < 98%
Weight	390 g ± 10g (including batteries)
Approval	• EMC performance: ESD/EMI: 10 V/m • Fully watertight – equivalent to IP67 • ATEX (when used with an ATEX certified PTT module) • ATEX level: II 2G Ex ia IIC T4 • SNR value : 26 dB / H=26 / M=23 / L=18
Ordering Information	Part number (*when ordered separately from the helmet*) • GA010002D3X – Headset, Gallet F1XF, Hearing Protection, boom microphone

Headset general view

Headset mounted inside the helmet

Connecting plug, headset to PTT

Ambient sound microphone

Battery compartment

Button (on/off and Volume +/-)

4

Gallet F1 XF

Hearing Protection with Bone conductive Microphone

Specification	Description
Overview	Active Hearing Protection headset with built-in communication capabilities, including: • Two ear muffs with padding and noise attenuation foam • Built-in, level dependent function with amplification volume adjustment • Ear cup height adjustment system for optimal wearing position • Flexible microphone attached to the left muff • Downlead Cable with anti-tearing, LEMO connecting plug (blue).
Interoperability	Operates with an MSA Push-to-Talk (PTT) module enabling connection to the PMR radio. Connection through LEMO plug with color codification. • PTT module with red connector: non ATEX system • PTT module with blue connector: ATEX system (for use with approved ATEX radios only)
Technical specifications	• Microphone: Accelerometer, 20 Hz – 20 kHz, Sensitivity 1 mV / mG • Loudspeaker: 32 Ω, 100Hz-20kHz, max power 100mW • Material: Cup: PC/ABS, Cushion: Synthetic leather • Down lead Cable: Fire retardant, shielded cable • Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions), • Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L
Weight	370 g ± 10g (including batteries)
Approval	• EMC performance: ESD/EMI: 10 V/m • Fully watertight – equivalent to IP67 • ATEX (when used with an ATEX certified PTT module) • ATEX level: II 2G Ex ia IIC T4 • SNR value : 26 dB / H=26 / M=23 / L=18
Ordering Information	Part number (when ordered separately from the helmet) • GA010002C3X – Headset, Gallet F1XF, Hearing Protection, bone conductive

Headset general view

Headset mounted in helmet

Connecting plug, headset to PTT

Ambient sound microphone

Battery compartment

Button (on/off and Volume +/-)

5

Hearing Protection with level dependant function

Specification	Description
Overview	Active circum aural headset enabling the user to be in contact with the surroundings but still protect the hearing, including: • Two ear muffs with padding and noise attenuation foam • Built-in, level dependent function with amplification volume adjustment • Ear cup height adjustment system for optimal wearing position
Technical specifications	• Loudspeaker: 32Ω, 100Hz-20kHz, max power 100mW • Material: Cup: PC/ABS, Cushion: Synthetic leather • Battery: 2xAAA batteries, Duracell, Varta, Energizer (ATEX versions), • Surrounding sound amplifiers: Omnidirectional, sensitivity -38±2dB, Max input 110dB S.P.L
Weight	330 g ± 10g (including batteries)
Approval	• EMC performance: ESD/EMI: 10 V/m • Fully watertight – equivalent to IP67 • ATEX Approval according to directive • ATEX level: II 2G Ex ia IIC T4 • SNR value : 26 dB / H=26 / M=23 / L=18
Ordering Information	Part number (when ordered separately from the helmet) • GA010002E3X – Headset, Gallet F1XF, Hearing Protection

Headset general view

Headset mounted in helmet

Ambient sound microphone

Battery compartment

Button (on/off and Volume +/-)