# BGH-12 RADIO CONTROL UNIT

## Description

The BGH-12 is an FM RADIO CONTROL UNIT. It controls up to three separate FM radios and connects them to the audio system of the rotorcraft. The radio channels on each of the radios are quickly selectable via a rotary pushbutton. The BGH-12 supports SELCAL. The SELCAL table can easily be transferred via a USB port and freely arranged according to favourite section, recent selcalls or in alphabetical order. The list can also be entered manually.

Text and data messages can also be sent and received via the BGH-12. Target coordinates can be received from a home base and sent to the navigation system directly. And the aircraft's position can be continuously transmitted to the home base from an external GPS source, which allows an aircraft tracking from the home base.

The BGH-12 unit features an aural signal for incomming calls, text messages and unsuccessful transmissions.
An integrated emergency function is activated when the two emergency buttons are pushed simultaneously. This includes sending a distress SELCAL, a distress message and setting the position reporting interval to the highest rate.

The FM RADIO CONTROL UNIT comes also with a display which is NVIS friendly and sun-readable. The robust buttons are designed to be operable with gloves. For configuration and maintenance, it features an RJ45 and an RS232 service interface.

The BGH-12 meets aviation standards and requirements and is delivered with an EASA Form 1.
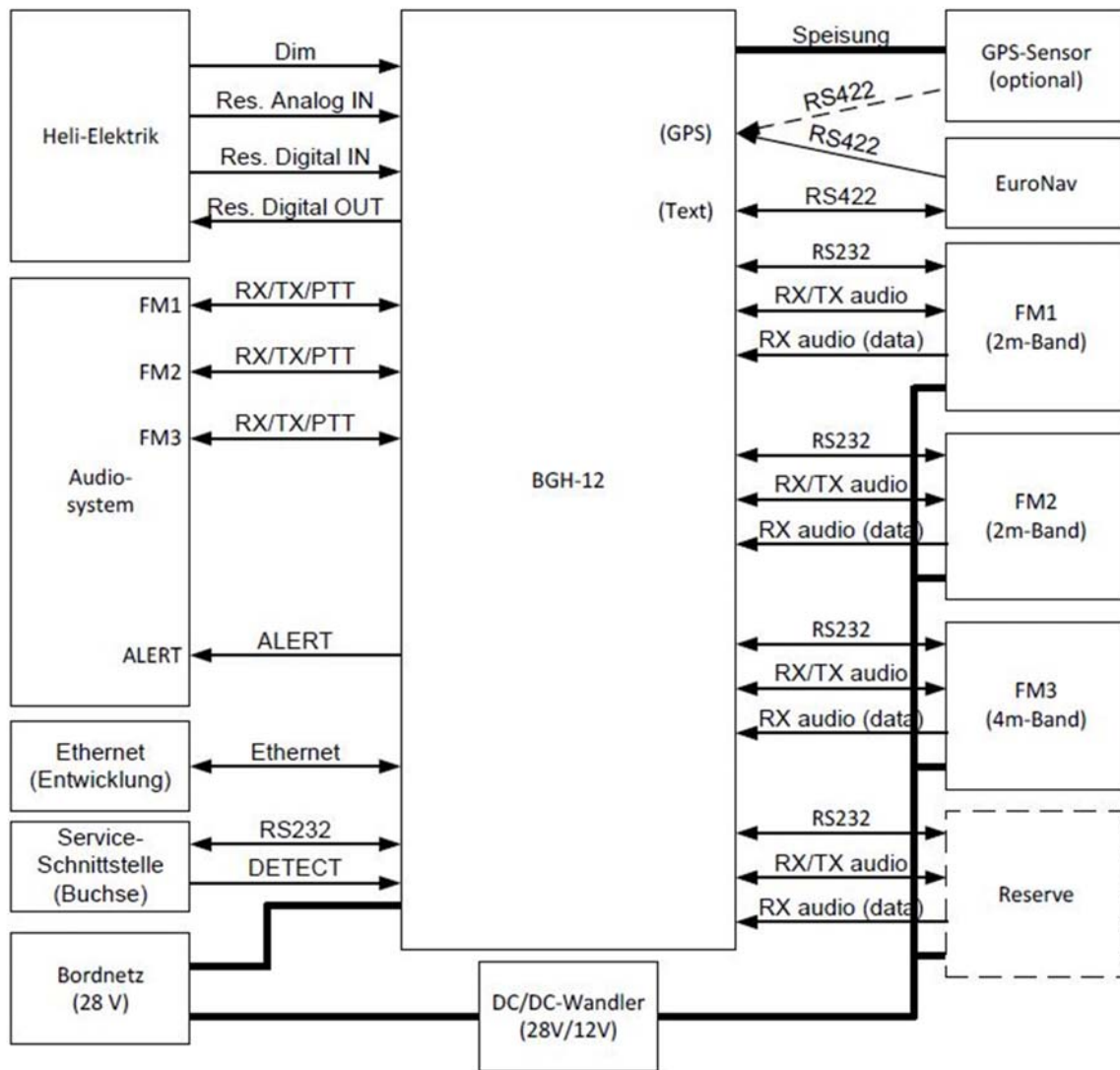The applicable approval can be provided by us specifically for your aircraft type.

## Features

- 3 FM radios
- Add received coordinates to EuroNav
- Receive and send messages to base
- Position reporting
- SELCAL function
- Emergency call
- USB port, RJ45 & RS232 interface

## Application example

The BGH-12 installation in the Swiss search and rescue operator (REGA) helicopters allows for permanent monitoring and operation of three radios, EuroNav data transmission and messaging with the touch of a button.
The system can also be laid out to your individual requirements and needs.

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## Principle Diagram



## Technical Specifications

| Nominal Operating Input Voltage | 28.00 V |
|---|---|
| Max Operating Voltage | 36VDC |
| Min Operating Temperature | -55°C (see DO-160G Section 4 and 5) |
| Max Operating Temperature | +85°C |
| DO / ED Approval | DO-160G, DO-178B |
| Pressure Limitation | 25'000ft |
| Flammability | Proven avionics material, no risk of fire |

## Environmental Specifications according DO-160 / ED-14

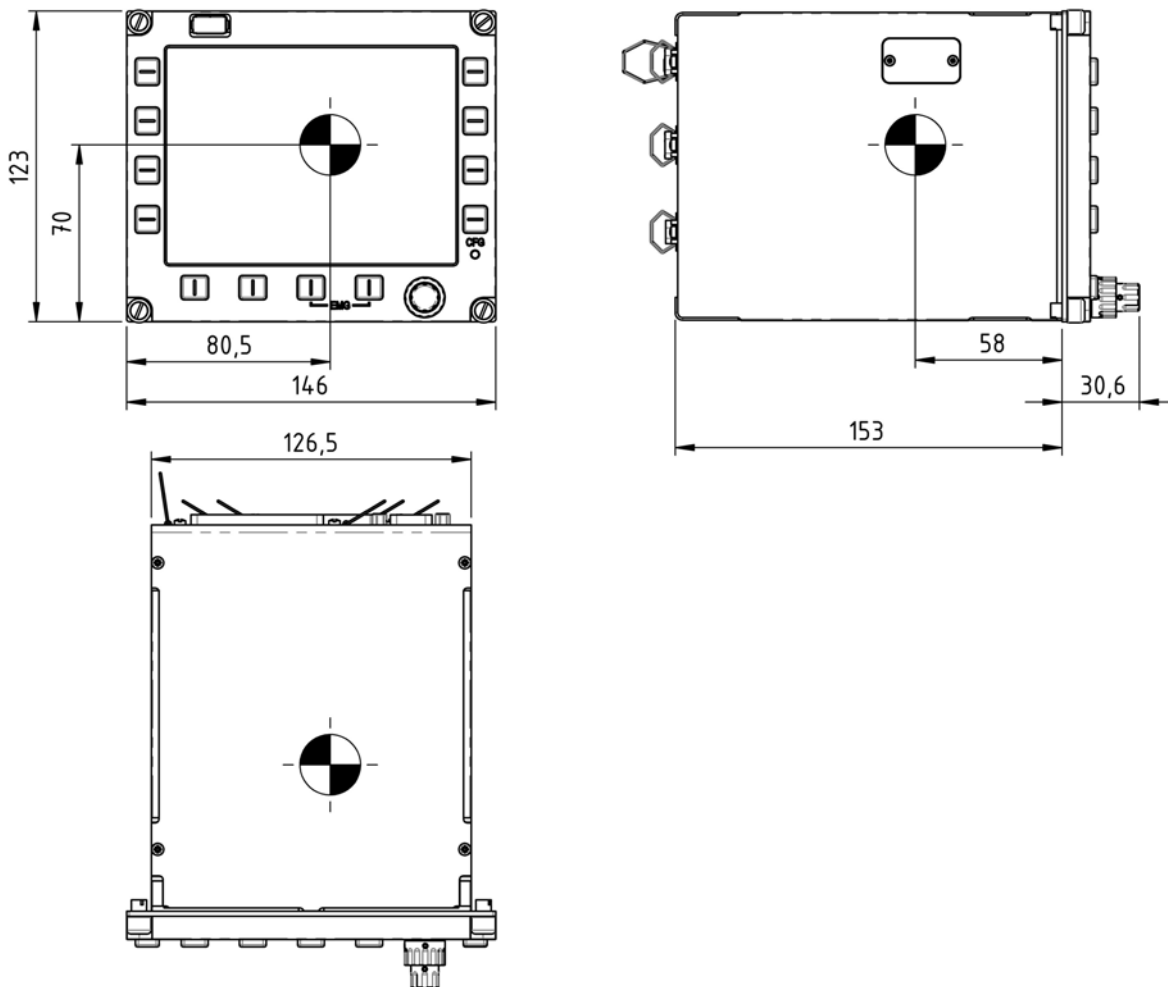| Temperature and Altitude | DO-160G Section 4 Cat. B1 |
|---|---|
| Temperature Variation | DO-160G Section 5 Cat. C |
| Humidity | Designed to DO-160G Section 6 Cat. A |
| Operational Shock and Crash Safety | Designed to DO-160G Section 7 Cat. A |

| Vibration | DO-160G Section 8 Cat. R |
|---|---|
| Waterproofness | Designed to DO-160G Section 10 Cat. W |
| Magnetic Effect | DO-160G Section 15 Cat. Z |
| Power Input | Designed to DO-160G Section 16 Cat. B |
| Voltage Spike | Designed to DO-160G Section 17 Cat. B |
| Audio Frequency Conducted Susceptibility - Power Inputs | Designed to DO-160G Section 18 Cat. B |
| Induced Signal Susceptibility | Designed to DO-160G Section 19 Cat. B |
| Radio Frequency Susceptibility (Radiated and Conducted) | Designed to DO-160G Section 20 Cat. S |
| Emission of Radio Frequency Energy | DO-160G Section 21 Cat. M |
| Lightning Induced Transient Susceptibility | Designed to DO-160G Section 17 Cat. B3, D3 |
| Electrostatic Discharge | Designed to DO-160G Section 25 Cat. A |
| Fire, Flammability | Designed to DO-160G Section 26 Cat. C |

## Mechanical Dimensions

Weight of the unit                                                     1.30   Kg
Weight of the unit including required installation materials (w/o wiring)     1.76   Kg

All dimensions [mm]

# Configuration / Ordering Data

**Part Number**      **Type**                              **Description**

1111396.1            BGH-12                                BGH-12 FM radio control unit for 3 FM radios, GPS tracking, SELCAL, USB, RS232

## Additional Parts for installation:

| Qty | Part Number | Description |
| --- | --- | --- |
| 2 | RD50F00000 | D-SUB, SOCKET, 50POL |
| 1 | RD15M10000 | D-SUB, PIN, 15POL |
| 2 | D50000JVL0 | D-SUB, CASE PLASTIC, 50POL |
| 1 | D15000JVL0 | D-SUB, CASE PLASTIC, 15POL |