# Voice Alarm Controller

**EN 54-16**

## MAIN FEATURES

- Controlled emergency microphone
- 2-channel broadcast system
- Built-in message generator to broadcast pre-recorded messages (EVAC and ALERT)
- USB input for background music source
- Backup power amplifier management
- Secondary emergency power supply input (24Vdc)
- 7 controlled input contacts
- 3 relay outputs
- 6 control lines for DPU digital amplifiers and/or router VAR 2006 and/ or integrated voice evacuation system
- 4 redundant lines to connect other VAC 2006 in daisy chain (max. 6)
- 2 redundant lines for emergency microphone consoles, MBT range (max. 7)
- 2 lines for call stations MBT range (max. 16 with 7 priority levels)
- Graphic display 128 x 64 pixel monochrome, for display multiple windows management
- Complete diagnostic of system fault events
- Standard rack mounting 19" (2 units)



## DESCRIPTION

This new range of products has been designed and engineered to offer the most innovative solutions in the realization of alarm systems, in order to manage emergency situations and to permit guided evacuation, according to current regulations (EN 54-16, ISO 7240-19, EN 60849). The complete architecture of the VAIE2250 system is based on the controller VAC2006, the management and diagnostic unit. It is highly recommended for both big and small installations, where high performance of security, flexibility, and easiness are required. CAT-5e SF/UTP network ensures easy connection of the several units, controllers, routers, digital amplifiers, and emergency and/or paging call stations. This solution performs efficient and economical installation, allowing the usage of both local and centralized equipment.

## TECHNICAL SPECIFICATIONS

| POWER SUPPLY | VAC 2006 |
|---|---|
| Mains power supply @230Vac<br>Consumption @230Vac | 230Vac 50/60Hz ± 10%<br>10W |
| External power supply @24Vdc<br>Consumption @24Vdc | 24Vcc (Min 22Vcc ÷ Max 28Vcc)<br>0.3A |

### MECHANICAL SPECIFICATIONS

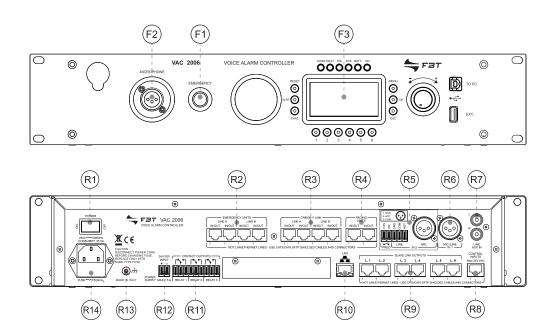| | |
|---|---|
| Code | 37712 |
| Environmental operating conditions | Temperature: +5°C - +40°C<br>Relative humidity: 25% to 75% (non-condensing) |
| Type of mounting | Direct to rack 19" (2U) |
| Net dimensions (WxHxD) | 482 x 88 x 220mm<br>18.97 x 3.46 x 8.66inch |
| Transport dimensions (WxHxD) | 525 x 150 x 330mm<br>20.67 x 5.91 x 12.99inch |
| Net weight | 5.40 kg<br>11.90 lb |
| Transport weight | 6.70 kg<br>14.77 lb |

## TECHNICAL SPECIFICATIONS

| GENERAL | VAC 2006 |
|---|---|
| Display | 3", backlit, 128 x 64 dots |

### INPUTS

| USB - EXT | Powered USB input on the front panel - Type A socket |
|---|---|
| **Emergency microphone** | **Balanced XLR-F on the front panel** |
| • Sensitivity / Impedance | Signa level 20mV / 10kW |
| • Frequency response | 60 ÷ 20kHz |
| • S/N ratio | 72dB |
| **IN. 1** | **Programmable for the following modes: ON / OFF / Precedence / VOX with A.P.T** |
| **Socket (MIC)** | **Balanced XLR-F (with possibility of activating 24V phantom power supply)** |
| • Sensitivity / Impedance | Signal level Min. 3mV - Max 100mV / 1.8kW |
| • Frequency response | 240 ÷ 20kHz |
| • S/N ratio | 63dB |
| **IN. 2** | **Programmable for following modes: ON / OFF / Precedence / VOX with A.P.T.** |
| **Socket (MIC)** | **Balanced XLR-F (with possibility of activating 24V phantom power supply)** |
| • Sensitivity / Impedance | Signal level Min. 3mV - Max 100mV / 1.8kW |
| • Frequency response | 240 ÷ 20kHz |
| • S/N ratio | 63dB |
| **Socket (LINE)** | **Balanced with terminals (HOT - COM - GND)** |
| • Sensitivity / Impedance | Max signal level 1800mV / 31kW |
| • Frequency response | 60 ÷ 20kHz |
| • S/N ratio | 84dB |
| **AUX** | **RCA stereo socket for source of sound (BGM) - Conversion to mono** |
| • Sensitivity / Impedance | Max signal level 1800mV / 31kW |
| • Frequency response | 60 ÷ 20kHz |
| • S/N ratio | 84dB |
| **Paging units** | **2 RJ45 for calling (PA) units ranges** |
| • Sensitivity / Impedance | Max signal level 1400mV / 85kW |
| • Frequency response | 60 ÷ 20kHz |
| • S/N ratio | 83dB |
| **EMERGENCY UNITS** | **RJ45 for connection to a dedicated emergency microphone station** |

### OUTPUTS

| SLAVE LINK OUTPUT | RJ45 for connection to an VAR 2006 / DPU / VAIE 2250 unit |
|---|---|
| • Output level / Impedance | Max 2000mV / 40W |
| **CR8506-V LINK** | RJ45 for connection to a VAC 2006 unit |
| • Output level / Impedance | Max 2000mV / 400W |
| • Sensitivity / Input impedance | 2000mV / 50kW |
| **Emergency controls** | **Programmable as Normally Activated or Normally De-activated** |
| • Controlled inputs CONTACT | 7 inputs with diagnostics |
| • Outputs R1, R2, R3 | 3 relays for signalling emergency conditions and failures, NO-NC-Changeover terminals |
| **Precedence IN 1 - IN 2** | **Precedence input with terminals with common +12Vdc** |
| **LAN** | **Presa LAN RJ45 per collegamento TCP / IP a web server** |

## CONTROLS & FUCTIONS



**F1.** Flush-mounted push-button for activating the Manual emergency mode.

**F2.** Hand-held microphone with a Push-to-Talk (PTT) key for live emergency announcements.

**F3.** Backlit black-and-white graphic display, 128x64 pixels.

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**R1.** ON/OFF switch

**R2.** Inputs for connecting remote emergency microphone stations (MBT).

**R3.** Sockets for connection between VAC2006 controllers (up to 6 units).

**R4.** Input for connecting broadcast paging units.

**R5.** Balanced input for a microphone or outside source / Terminal block for connecting a precedente contact.

**R6.** Input for external microphone.

**R7.** Input for connecting an external source of music.

**R8.** 7 monitored digital inputs for control via external peripheral units.

**R9.** 6 output lines for connection to amplifiers of the DPU range and / or VAIE2250 compact system and / or VAR2006 routers.

**R10.** Socket for connecting a Local Area Network with TCP/IP protocol for an Ethernet 10/100network.

**R11.** 3 relay outputs for signalling towards external peripheral units.

**R12.** Terminals for 24Vdc external power supply.

**R13.** Frame earthing connection.

**R14.** Plug for 230Vac mains power supply, with built-in fuse.

## TYPICAL CONFIGURATION

Digital Amp

I/0 CONTACTS
FIRE UNIT

VAC 2006
Voice Alarm Controller

LINEA A

LINEA B

Z. 1 (125W)

DPU 1125C

LINEA A

LINEA B

Z. 2 (375W)

DPU 1125C

CAT5 SFPT

MUSIC

LINEA A

LINEA B

DPU 1250C

LINEA A

LINEA B

Z. 6 (500W)

DPU 1500C

MBT 1106
MBT 1112
(Up to 7)

BACKUP 100V

24VDC OUT
TO ALL
SECONDARY PSU IN

DPU 1500C

FMD 2001
FMD 2012
(Up to 7)

SON 24V 6A MS40
Battery Charger