

Compact Voice Alarm System

MAIN FEATURES

- Rated audio output: 100W (4101 / 4102) - 250W (4251 / 4252).
- Backlit 4.3" display with touch screen for selecting the alert and evacuation zones and enabling navigation for adjusting volume levels, configuring the equipment, and viewing failures.
- Handheld fireman's microphone (included).
- Sending out of pre-recorded EVACUATION and ALERT messages.
- 4 off controlled input contacts, configurable for playing the evacuation and/or alert messages to the zones, for resetting the messages, or for signaling the failure of an external equipment.
- 1 off music input for sound sources.
- 1 off auxiliary input configurable as a music source, a call with precedence activation, or a call with automatic activation (VOX).
- 2-off configurable relay outputs.
- Local button for placing the system in an emergency state, equipped with its own LED.
- Local button for resetting the fault acoustic signal and stopping playing out of alarm messages.
- EN 54-4 certified internal battery charger unit for 24Vdc secondary power supply (batteries not supplied).
- Possibility to connect up to 4 MBT 1000 series broadcasting microphone units or, as an alternative, up to 2 FMD series remote emergency units.
- An optional extension card can be used for broadcasting general calls towards other connected units or as an additional music input.
- Possibility to set a standby amplifier calls towards other connected units or as an additional music input.
- Possibility to set a standby amplifier.



EN 54-16:2008

EN 54-4:1997

EN 54-16:2008
EN 54-4:1997 + A1:2002 + A2:2006
Cert. Nr. 0068-CPR-163/2021

Declaration of Performance (DoP) available on the website: www.fbt.it

DESCRIPTION

The VAIE 4000 series has been specifically designed for wall-mounting and equipped with control units, certified in compliance with EN 54-16:2008 / EN 54-4:1997 standards.

Wall mounted voice alarm integrated equipment:

VAIE 4101: 100W | 1 zone (A+B)

VAIE 4102: 100W | 2 zones (A+B)

VAIE 4251: 250W | 1 zone (A+B)

VAIE 4252: 250W | 2 zones (A+B)

LIST OF OPTIONAL FUCTIONS

CLAUSE	DESCRIPTION
7.6.2	Manual muting of voice alarm condition
7.7.2	Manual resetting of voice alarm condition
7.9	Output for signalling a voice alarm condition
8.3	Indication of fault affecting the transmission paths
8.4	Indication of fault affecting the alarm zones
10	Manual control of voice alarms
11	Interface for external control device(s)
12	Emergency microphone(s)

LIST OF AUXILIARY FUCTIONS

DESCRIPTION
Broadcast calls
Background music

TECHNICAL SPECIFICATIONS

GENERAL	VAIE 4101	VAIE 4102	VAIE 4251	VAIE 4252
Rated audio output @230Vac	100W	100W	250W	250W
Rated audio output @24Vdc	85W (THD=10%)	85W (THD=10%)	200W (THD=10%)	200W (THD=10%)
Rated audio output @ 21,5Vdc	68W (THD=10%)	68W (THD=10%)	158W (THD=10%)	158W (THD=10%)
Display	4.3" / backlit with touch screen, 480 x 272 pixel	4.3" / backlit with touch screen, 480 x 272 pixel	4.3" / backlit with touch screen, 480 x 272 pixel	4.3" / backlit with touch screen, 480 x 272 pixel
N. of zones / amplifiers	1	2	1	2

INPUTS

Emergency microphone	Dynamic XLR -F w/P.T.T. (push to talk) on the front door	Dynamic XLR -F w/P.T.T. (push to talk) on the front door	Dynamic XLR -F w/P.T.T. (push to talk) on the front door	Dynamic XLR -F w/P.T.T. (push to talk) on the front door
• Sensitivity / Impedance	Signal level 20mV / 10kOhm	Signal level 20mV / 10kOhm	Signal level 20mV / 10kOhm	Signal level 20mV / 10kOhm
• Frequency response	110 ÷ 10kHz	110 ÷ 10kHz	110 ÷ 10kHz	110 ÷ 10kHz
• S/N ratio	61dB	61dB	61dB	61dB
Paging units / Emergency unit (UNIT)	1 off RJ45 for paging units (PA) or emergency units	1 off RJ45 for paging units (PA) or emergency units	1 off RJ45 for paging units (PA) or emergency units	1 off RJ45 for paging units (PA) or emergency units
• Sensitivity / Impedance	Signal level max 850mV / 8kOhm	Signal level max 850mV / 8kOhm	Signal level max 850mV / 8kOhm	Signal level max 850mV / 8kOhm
• Frequency response	60 - 20kHz	60 - 20kHz	60 - 20kHz	60 - 20kHz
• S/N ratio	84dB	84dB	84dB	84dB
AUX input (LINE-VOX) / MUSIC	Balanced with terminals (HOT/COM/GND) Programmable in ON/OFF/VOX with A.P.T. models Precedence Input with contact closing activation	Balanced with terminals (HOT/COM/GND) Programmable in ON/OFF/VOX with A.P.T. models Precedence Input with contact closing activation	Balanced with terminals (HOT/COM/GND) Programmable in ON/OFF/VOX with A.P.T. models Precedence Input with contact closing activation	Balanced with terminals (HOT/COM/GND) Programmable in ON/OFF/VOX with A.P.T. models Precedence Input with contact closing activation
• Sensitivity / Impedance	160mV / 40kOhm	160mV / 40kOhm	160mV / 40kOhm	160mV / 40kOhm
• Frequency response	40 ÷ 20kHz	40 ÷ 20kHz	40 ÷ 20kHz	40 ÷ 20kHz
• S/N ratio	73dB	73dB	73dB	73dB

OUTPUTS

Constant voltage outputs	1 zones A/B for 100V lines Minimum 100Ohm	2 zones A/B for 100V lines Minimum 100Ohm	1 zones A/B for 100V lines Minimum 40Ohm	2 zones A/B for 100V lines Minimum 40Ohm
Emergency controls	Programmable for normally active or normally inactive state	Programmable for normally active or normally inactive state	Programmable for normally active or normally inactive state	Programmable for normally active or normally inactive state
• Controlled inputs (IN1 + IN4)	4-off inputs with diagnostic	4-off inputs with diagnostic	4-off inputs with diagnostic	4-off inputs with diagnostic
• Outputs R1, R2	2-off relays for signalling, state of emergency and faults (24 Vdc / 1 A each) N.O-N.C- Exchange state	2-off relays for signalling, state of emergency and faults (24 Vdc / 1 A each) N.O-N.C- Exchange state	2-off relays for signalling, state of emergency and faults (24 Vdc / 1 A each) N.O-N.C- Exchange state	2-off relays for signalling, state of emergency and faults (24 Vdc / 1 A each) N.O-N.C- Exchange state

POWER SUPPLY	VAIE 4101	VAIE 4102	VAIE 4251	VAIE 4252
Mains power supply @230Vac	230Vac 50/60Hz +10/-15%	230Vac 50/60Hz +10/-15%	230Vac 50/60Hz +10/-15%	230Vac 50/60Hz +10/-15%
Consumption @230Vac	130W full load 22W quiescent	130W full load 22W quiescent	330W full load 33W quiescent	330W full load 33W quiescent
Secondary power supply	24Vdc (2 x 12 Vdc batteries)	24Vdc (2 x 12 Vdc batteries)	24Vdc (2 x 12 Vdc batteries)	24Vdc (2 x 12 Vdc batteries)
Consumption @24Vdc	4,2A full load 660mA quiescent 0,22A energy saving	4,2A full load 660mA quiescent 0,22A energy saving	9,8A full load 940mA quiescent 0,22A energy saving	9,8A full load 940mA quiescent 0,22A energy saving
Batteries	12Ah - Ri max 250mOhm / 24h in standby + 1/2h full power alarm message	12Ah - Ri max 250mOhm / 24h in standby + 1/2h full power alarm message	12Ah - Ri max 250mOhm / 24h in standby + 1/2h full power alarm message	12Ah - Ri max 250mOhm / 24h in standby + 1/2h full power alarm message
	18Ah - Ri max 167mOhm / 72h in standby + 1/2h full power alarm message	18Ah - Ri max 167mOhm / 72h in standby + 1/2h full power alarm message	18Ah - Ri max 167mOhm / 72h in standby + 1/2h full power alarm message	18Ah - Ri max 167mOhm / 72h in standby + 1/2h full power alarm message
Charger / Power supply unit	2,5A (I max a) / 5A (I max b) 21V (final voltage - detached battery) 27,2V (complete load voltage)	2,5A (I max a) / 5A (I max b) 21V (final voltage - detached battery) 27,2V (complete load voltage)	9A (I max a) / 11A (I max b) 21V (final voltage - detached battery) 27,2V (complete load voltage)	9A (I max a) / 11A (I max b) 21V (final voltage - detached battery) 27,2V (complete load voltage)

MECHANICAL SPECIFICATIONS

Code	44605	44606	44607	44608
Internal fuses	V ~ 2 AT / V ~ 10 AT	V ~ 2 AT / V ~ 10 AT	V ~ 2 AT / V ~ 10 AT	V ~ 2 AT / V ~ 10 AT
Environmental operating conditions	Temperature: +5°C ÷ +40°C / Relative humidity: 25% to 75% (non-condensing)	Temperature: +5°C ÷ +40°C / Relative humidity: 25% to 75% (non-condensing)	Temperature: +5°C ÷ +40°C / Relative humidity: 25% to 75% (non-condensing)	Temperature: +5°C ÷ +40°C / Relative humidity: 25% to 75% (non-condensing)
Type of mounting	Wall mounting	Wall mounting	Wall mounting	Wall mounting
Net dimensions (WxHxD)	360 x 495 x 193mm 14.17 x 19.48 x 7.59inch	360 x 495 x 193mm 14.17 x 19.48 x 7.59inch	360 x 495 x 193mm 14.17 x 19.48 x 7.59inch	360 x 495 x 193mm 14.17 x 19.48 x 7.59inch
Net weight	9.60 kg 21.16 lb	9.70 kg 21.38 lb	10 kg 22.04 lb	10.50 kg 23.14 lb

TYPICAL CONFIGURATION

