TECHNICAL DATA SHEET

VAA VOICECOM AMPLIFIER

COMMUNICATIONS

Applications

The Voicecom Amplifier (VAA) is the field communication module for the Ampcontrol VoiceCom System. The module is approved to Ex ia Intrinsically Safe Standards for use in Group I, Zone 0 hazardous areas.

Typical applications of the communication system include Longwall and conveyor communications, point-to-point intercom and messaging systems. The system provides pre-start warning alarms, push to talk voice intercom and pre-recorded voice message paging functions.
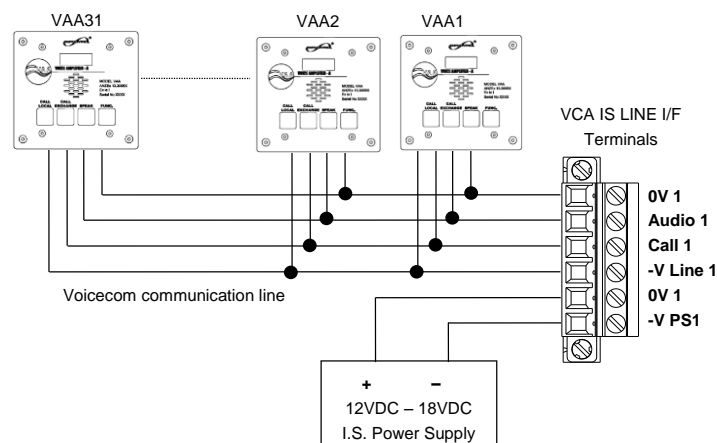

Features

- LCD indication for Line Voltage, Battery Voltage, Battery Current, VAA Address, Communications Status, Amplifier Status and Low Battery Warning
- Local generation of pre-start warning alarm tones and call function tones
- Adjustable pre-start warning alarm pass/fail monitoring
- Digital communication of VAA status back to VCA Controller
- Remote diagnostics (Modbus RTU communications via VCA)
- Settings configurable locally (at VAA) or remotely (via VCA)
- High quality weather proof loudspeakers (Mylar cone)
- Long battery life due to efficient Class-D amplification and low power circuitry design
- Replaceable battery pack
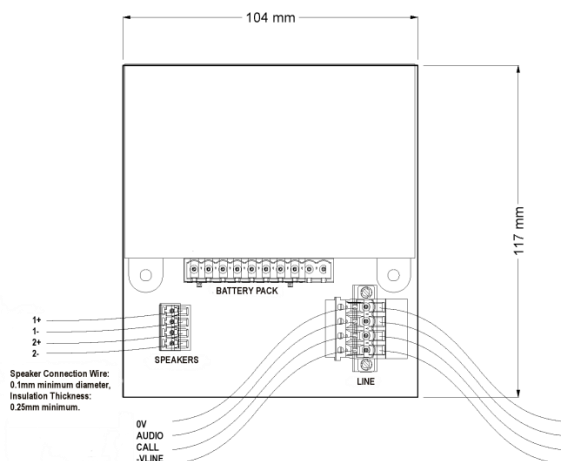
Product description

The VAA has an integral microphone and connections for two loud speakers. Four push buttons provide calling functions and a LCD display provides status indication.

The VAA is available as a sub-assembly suitable for panel mounting or as standard unit housed in a specialised stainless steel enclosure with integral speaker grills and options for plug and socket or glanded cable entries.
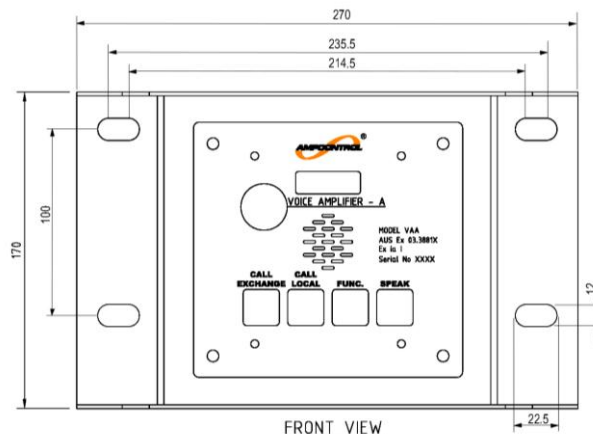
Typical Connection Diagram (refer to VoiceCom Product Manual for detailed information)

VAA TECHNICAL DATASHEET
VCOMB003 REV7
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General Arrangement

Panel Mount VAA Sub-assembly

(rear view - terminals)

Standard VAA in Steel Enclosure

Specifications	
Certificates/Approvals	
Type	Ex ia I (Intrinsically Safe)
Certificate Number	ANZEx 13.3005X
Power Supply	
Voltage	-10VDC to -19VDC
Charge Current	Selectable from 5mA to 40mA in 1mA increments (per VAA)
Environmental Conditions	
Temperature Range	0°C to +50°C
IS Parameters[1] **(LINE connector terminals: 0V, AUDIO, CALL, -VLINE)**	
Maximum Input Voltage (Ui)	19V
Maximum Input Current (Ii)	3A
Maximum Input Capacitance (Ci)	Negligible
Maximum Input Inductance (Li)	Negligible
[1] Refer to Certificate of Conformity ANZEx 13.3005X for all conditions of certification.	
Battery	
Type	Sealed Lead Acid (SLA)
Voltage	6V
Capacity	1200mAh
Typical Battery Loads	Pre-start Warning Alarm: 150mA approx. Voice Message Playback: 20mA avg approx. Stand-by (no audio output): 2mA approx. Sleep Mode: 20μA approx.
Sound Output	
Output	90dB approx. at 1m for pre-start warning
Mechanical	
Dimensions (panel mount sub-assembly)	137 x 145 x 57mm (depth with battery pack installed 98mm) (H x W x D)
Dimensions (standard enclosure)	170 x 270 x 121.5mm (H x W x D)
Dimensions (battery pack)	78 x 104 x 50mm (H x W x D)

IP Rating (panel mount sub-assembly)	IP66 (fascia seal) Note: fascia must be installed in a minimum IP55 enclosure
IP Rating (standard enclosure)	IP66

Ordering Information

Panel Mount VAA

Part Number	Description
168799	S/ASSY VAA PANEL MNT V3 ANZEx
120281	MODULE VAA BATTERY PACK ANZEx
120712	KIT VCOM SPEAKER 8ohm 12W 400mm LEAD & GSKT
144372	KIT VCOM SPEAKER 8ohm 12W 400mm LEAD & GSKT & GRILL

Standard Enclosure VAA

Longwall

Part Number	Description	
101178	VAA NEW MACEY LSRS# ANZEx	
120284	VAA NEW MACEY LBRB# ANZEx	
121006	VAA NEW MACEY LSRB# ANZEx	**(P/N 101178 shown)**

Conveyor

Part Number	Description	
120756	VAA GLND LBRB# ANZEx	
120996	VAA WEILAND LSRS# ANZEx	
121493	VAA BULGIN LSRS# ANZEx	
121382	VAA GLND LSRS# HORN SPKRS NON-IS	**(P/N 121493 shown)**

Accessories

Part Number	Description
Replacement Battery	
120281	MODULE VAA BATTERY PACK ANZEx
Replacement Speaker	
120712	KIT VCOM SPEAKER 8ohm 12W 400mm LEAD & GSKT
Interconnect Cable[2]	
121113	CABLE VCOM V2 2x50ohm COAX 2x4mm2
161480	CABLE VCOM V2 LS0H 2x50ohm COAX 2x4mm2

[2] *Please contact Ampcontrol customer service to discuss your specific cabling requirements. Cables are available in a multitude of standard lengths pre-terminated with lugs or socket plugs.*

DISCLAIMER

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