

GENT
by Honeywell

Section 8.1:

Vigilon Voice Alarm System



8.1: VIGILON VOICE ALARM SYSTEM

GENT
by Honeywell

System Overview

Vigilon Voice is a voice alarm system, which supports the needs of large buildings and complex sites. The system enables a number of Distributed Amplifier Units (DAU's), to be controlled by Audio Control Units (ACU's).

A Master ACU allows additional Slave ACU's or microphone units to be supported. This Slave acts as a second VA control panel and mimics the controls of the Master. No keypad or LCD for programming is provided at the Slave.

The Master ACU can be supplied as either a blank version or complete with a user interface and integral emergency microphone. A Master ACU is always required when more than one DAU is to be used on the same system.

The ACU enables paging announcements to be made to the distributed systems. An interface is provided to allow inputs from the Vigilon control panel(s) to control Digital Voice Announcements (DVA's) from the distributed systems.

Control Network Operation

The control network acts as a transparent transmission medium for the control protocol to be transmitted from the ACU to the DAU's.

The network is configured as a loop and is tolerant to open or short circuit cable faults between nodes of the loop. This is achieved by the network normally operating in a preferred transmission direction, should a fault be detected, the originating node shall effectively transmit in both directions around the ring. Receiving DAU's are able to detect the new data direction.

Audio Distribution

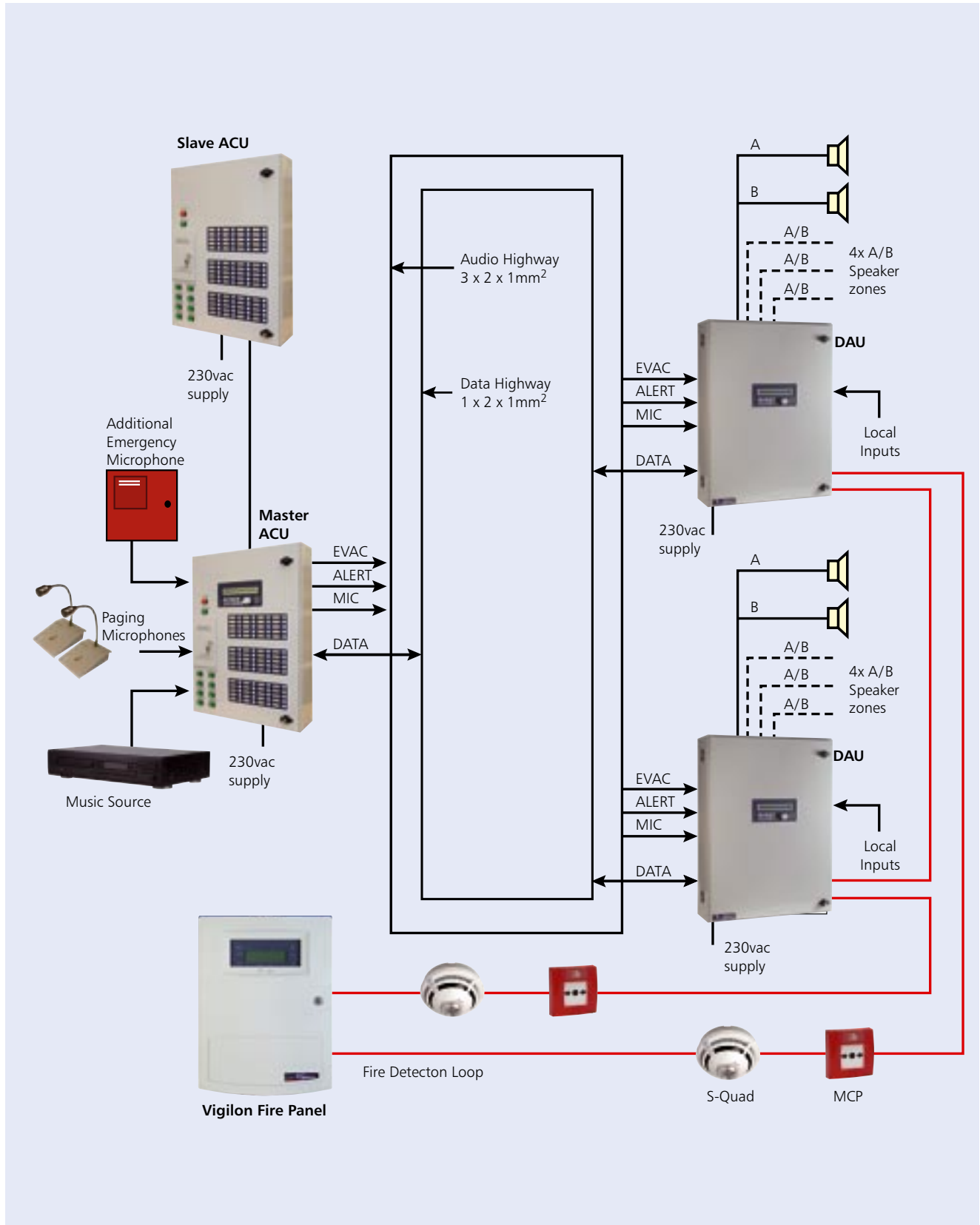
Baseband Audio will require one copper pair per channel. Three audio channels are supported as a minimum to enable simultaneous 'Alert', 'Evacuate' and emergency microphone audio to be broadcast. In non-emergency conditions the audio channels may be used for background music and routine paging functions. The audio loops are fault-tolerant.

As well as distributing the audio, it is required that a master microphone, Press-to-talk, signal is also conveyed over the audio link. This is to fulfil the BS 5839-8 requirement that an "All-Call Fireman's Microphone" operation is supported even if control processors fail.

It is possible for multiple ACU microphones to contend for a single audio channel for emergency microphone announcements. A simple global priority is implemented between microphones for granting access.



System Architecture



8.1: VIGILON VOICE ALARM SYSTEM

GENT
by Honeywell

10 Reasons to specify Vigilon Voice

- 1** **Safe evacuation** High quality intelligible voice messages reduce confusion and panic.
- 2** **State of the art technology** High quality audio with full digital signal processing, continuous audio path surveillance and DVA message monitoring.
- 3** **Save on space** Fully featured wall mounted control panel, easier to accommodate than conventional rack systems.
- 4** **Simple configuration and upgrades** All functions software configurable with no hardware links etc to set. Configuration can be readily archived and restored. Functionality upgrades involve only software not hardware.
- 5** **Full compliance with relevant standards** Complies fully with BS 5839-8, which is widely called for in project specifications.
- 6** **Ideal for large Multi-storey premises** System can be networked, with a central Audio Control Unit (ACU) controlling up to 30 Distributed Amplifier Units (DAU).
- 7** **System reliability** The network is tolerant to open or short circuit faults between any two units on data or audio busses, automatically recovering and pinpointing the location of the fault. Even if all the processors in the system fail, an All-Call announcement is still possible from the ACU Emergency Microphone.
- 8** **Site wide audio synchronisation** 3 audio channels plus data, allows simultaneous distribution of Alert and Evacuation messages to allow site wide audio synchronisation in addition to Emergency Microphone audio. When no emergency audio is present these channels may support routine paging or background music functions.
- 9** **No data degradation** Data is re-clocked at each DAU to ensure there is no data degradation as the size of the system increases.
- 10** **Easy to maintain** Detailed full system fault status can be viewed at the central ACU, meaning that remote units do not need to be inspected to diagnose the exact fault.

