

Sonix™ PA/GA public address general alarm



Overview

Designed to enhance modern communication philosophies, the Sonix™ Public Address and General Alarm System has been developed, manufactured and tested in line with the modern requirements of the oil & gas, petro and power generation markets of today and tomorrow. Sonix™ PA/GA is able to offer fully compliant communications solutions, to meet the most demanding applications for onshore, offshore and industrial installations.

Features

- Engineered to significantly reduce cabinet complexity, size and weight
- Greater than 92% efficient using Sonix™ patented parallel amplifier design
- Connectivity via copper twisted pair, RJ45, SM/MM fibre optic
- Common equipment design for single or networked solution
- User configurable using Sonix™ software application
- Up to 32 (350 W) amplifiers per system
- Up to 12 speech and alarm address zones
- Increase safety with fully duplicated internal and external cabling
- Up to 24 Hmi panels per system
- 6 manual alarm tones
- 16 built standard library alarms user selectable
- Up to 12 fire and gas alarms
- Up to 12 independent 10 A channels of beacon control
- COTS rapid fit CAT6A cabling
- Remote monitoring and system diagnostics via Sonix™ software
- Comprehensive certificates and Type approvals (DNV, ABS, BV ATEX, IECEx).



Next generation solutions

The Sonix™ PA/GA system is designed around a highly secure & flexible architecture, that removes the need for lengthy engineering cycles, bespoke and costly software, custom field engineering or expensive on site support. This results in a highly effective and flexible communications solution for the next generation.

The Sonix™ system is rigorously designed for installation in both safe area or potentially explosive environments, using latest protection philosophies including EExe, d, i, m and p to ensure the highest levels of safety whilst increasing operational features.

The Sonix™ PA/GA System is designed to meet and surpass the requirements of ATEX, IECEx, DNV, BV, ABS, IMO and PFEER, with other regional certifications pending.

Along with Eaton MEDC signaling devices, Eaton FHF telephones and Eaton Hernis CCTV, Sonix provides an end to end telecoms solution from a single OEM manufacturer.

System adaptability

Adaptively designed to operate in a number of system architectures: standalone system (A), fully duplicated galvanic isolated cabinets (A+B), duplicated input (N+1). The system is developed to ensure that, in the event of an unlikely outage of the 2Mx matrix, all local amplifiers and beacons are controlled and managed from an independent, remote 2Mx device (A+B Plus technology). This is achieved without the need for max 50% loading on each system as seen on alternative products. (see 2Mx data sheet for further information).

In all cases, these design architectures are efficiently applied to suit the smallest stand alone, through to the largest multi-matrix networked system, without additional engineering. Utilising RS422 / Fibre technology, provides Sonix with a fully adaptable and robust network interface to suit most applications and allows for truly distributed architecture.

The Sonix PA/GA system seamlessly and reliably interfaces into all site wide peripherals such as F&G, DCS, SCADA, PABX, CCTV, UHF radio, entertainments, disaster warning COMAH, drillers intercoms, page party and existing PA/GA System without the need for modification or unproven custom designs.

Connectivity

Within the Sonix™ PA/GA system, all internal cabling utilises the benefits of rapid fit CAT6A connectivity. This ensures efficient system manufacture, rapid site installation, immediate fault diagnosis, guarantees that standard off-the-shelf components are used for future product support in the field.

All internal and external communication paths are fully monitored to provide early warning of degradation or potential cable failures within the system. As standard all internal and most external wiring can be configured either as radial or self-healing rings to add additional flexibility and security to the system architecture and ensuring that no system outage is experienced.

Configuration

Sonix™ software provides the ability to configure, re-configure, monitor and diagnose the entire system via a local engineer's PC, remote touch screen, LAN, WAN. Sonix™ software, critically the software is not used to operate the system once configuration is complete, ensuring that the PA/GA system remains non-software dependable and functional at all times.

Sonix™ software can be equally used on standalone systems or to configure and monitor multiple globally dispersed sites, reporting full operational / status details back to the users chosen central location.

Customisation

Configurations outside of the standard feature set are likely to be possible, please contact your local Eaton sales representative to discuss customisation/engineer to order options.

Efficiency

Due to its unique 1U compact design, Sonix™ is designed to save up to 66% vertical and 50% horizontal space within the PA/GA System, compared to alternative products. This enables Eaton to combine PA/GA, VMS, intercom and other sub systems into single cabinets if needed.

Core to the design of Sonix™ PA/GA is efficiency and providing a sustainable future. Utilising the latest proven technology, the PA/GA system offers the best power efficiency available today, whilst ensuring system integrity and fail-safe operation. All Sonix™ products have been designed to significantly reduce operating, standby, full operation power consumption and in life maintenance costs.

With a greater than 92% efficiency (Patent GB 1300553.3), the Sonix amplifiers' quiescent and peak power usage is reduced and critically, heat emissions are significantly lower than available alternatives. This reduced power consumption and heat dissipation makes for highly improved environmental conditions within system cabinets and enclosures providing extended life expectancy.

Specifications

Mechanical/environmental	
Enclosures	Industrial 19" rackmount, Ex enclosures, other upon request
Architectures	A, A+B, N+1 with automatic system amplifier and beacon switchover
Internal system connectivity	Modular with rapid fit CAT6A connectivity (spur or self healing loop)
External system connectivity	Standard twisted pair and fibre-optic cables
Areas / zones	Safe, Ex Zone 0, 1 & 2, indoor and outdoor locations
Operating temp	See specific datasheets
Operating relative humidity	See specific datasheets
Ingress protection rating	See specific datasheets
Certifications	ATEX, IECEx, DNV, ABS, BV, IEC90645
Electrical / operational	
Power supply	48 Vdc supply, 110/230 Vac 50-60 Hz
No of power inputs	2 x AC inputs & 1 x DC battery back-up input (with auto changeover facility see Pm10 datasheet)
PA address zones	12
Alarm tones (global)	6 (Auto and manual initiate)
Max amplifiers	32 (expandable on request)
Max Hmi panels	24
Other I/O	Multiple, see Io Tu, Pbx & Ms12 datasheets
Additional services provided	
Project management	Project specific management, drawings and support to suit the level of your needs and system complexity
Design documentation	Either product based or system based documentation will be provided dependent upon client / project requirements
Acoustic surveys, design and reports	To maximise your system solution either feed, pre or post installation acoustic surveys can be undertaken with full report and design recommendations provided for consideration
Installation services	Fully qualified and trained engineers available to assist via Eaton regional offices with commissioning services prior to SAT services on site
Commissioning services	Fully qualified and trained engineers available to assist via Eaton regional offices with pre commissioning, commissioning and handover to client post FAT/SAT
Local in country technical support	Eaton can offer local sales, technical and component supply via our many overseas sales / technical facilities
FAT/SAT	FAT/SAT testing can be completed either at Eaton HAC headquarters, at any of the regional Eaton facilities or even at clients location if required
System training	Expert training on products either at Eaton's Hazardous Area Communications headquarters, at any of the Eaton overseas facilities or even at clients facilities if required