GLOBAL
FIRE EQUIPMENT

Manufacturers of
Fire Detection Equipment
Building on a long tradition of excellence in the field of Fire Alarm Control Panels, Global Fire Equipment, founded in Denmark by João Paulo Ajami, has experienced a remarkable organic growth both in turnover and customer numbers since 1994 and is now a world player, supplying customers across 70 countries with state of the art equipment, installed in prestigious premises ranging from major airports to an Antarctic research base. Based in a 37.000 ft² manufacturing facility in the Algarve region of Portugal, GFE designs, manufactures and exports a complete range of Fire Detection Products and puts customer satisfaction at the top of its priorities.

The Team
GFE is currently a PLC with three major shareholders and an executive board with five Directors.
PROTECTING

St. Georges Hospital - Tooting, England
Hospital São José - Rio de Janeiro, Brazil
Hospital Sta Helena - São Paulo, Brazil
Dortcelik Children’s Hospital - Bursa, Turkey

Washington Hotel- London, England
Hilton Cebu Resort & Towers - Lapu-Lapu, Philippines
Dionysius Hotel - Antalya, Turkey
Plantation Hotel - Pte Aux Piments, Mauricius

University of Iceland - Reykjavik, Iceland
University of Pharmaceutics - Vitoria, Spain
Woldingham School - Woldingham, England
St. Vincent School - Dublin, Ireland

Taipei Airport - Taipei, Taiwan
Sheremetyevo International - Moscow, Russia
Abu Simbel Airport - Abu Simbel, Egypt
Brazil Airport Authority Passenger Terminals - 6 installations

Suzuki Motor Works - Esztergom, Hungary
Madrid Stock Exchange - Madrid, Spain
Torre Chateau Libertador - Buenos Aires, Argentina
General Motors - RS, Brazil

Abbey Road Studios - London, England
Presidential Palace Planalto - Brasilia, Brazil
Pena Palace - Sintra, Portugal
Music City - Rio de Janeiro, Brasil

Royal Victoria Place Shopping Centre - Tunbridge Wells, England
TKMaxx (All stores) - England
Carrefour / Continente / Pão de Açucar - 60+ stores, Brazil
Westfield Shopping Town - Kent, England
Our flagship control panel range, the market leading Juno-Net, is an analogue addressable control panel that can encompass the largest and most complex projects that you are likely to design or commission, with a fully expanded capacity of 12,000 addressable devices connected across 96 fully redundant loops.

The system may be configured as a standalone panel with up to 13 loops or as a distributed system spreading the intelligence (and thus the redundancy) over the system. This may be comprised of external sub-panels and repeaters, with or without loop connection capacity, in order to provide an extremely flexible system expansion.

The dedicated network communication ring supports RS422/485, fiber-optic and TCP/IP technologies. For added integrity, each element of the distributed system has its own fire detection processing facility, leaving the main panel free to handle the advanced programming functions. This allows full customization of the fire detection system and its operation, tailored to the building’s particular requirements.

System capacity is high, allowing 384 detection zones, 512 sounder groups and 512 24/7 groups which may be configured using the GFE Connector programming software to take advantage of the full potential of the cause-effect programming features. Loop calculator software provides further help in evaluating complex systems where even a small detail counts.

Plug-and-Play functionality ensures that the basic system is fully operational within two minutes of initial power-up!

A high level communications protocol allows integration with BMS and System Integration platforms via MODBUS or our own graphical supervision software ODYSSEY, which supports up to 64 complete Juno-Net systems. This network topology may include a wide range of interfacing technologies, namely RS485, Fiber-Optics or TCP/IP.

The Junior addressable control panel is a powerful unit for small to medium sized installations and provides a very cost effective solution. The system may be further expanded from one to two loops with a plug-in loop expansion card, giving good flexibility in the mid range project market.

This control panel shares the same advanced features of our high-end Juno-Net system, including PC configuration tools for programming and the communication technologies (RS422, TCP/IP and Fiber-Optics) used for repeater panel connection and the ODYSSEY graphical software system.

An intuitive user interface, combined with a powerful menu, makes system installation & commissioning a very simple matter. Control panel menus offer concise instructions and give clear information regarding panel, loop and device status.

Whilst multi protocol support is available, a clear advantage exists in utilizing the GFE loop communication protocol due to the development of a wide range of ancillary devices & functions that are optimized to work with our systems, ie. 100% synchronization of all sounders in any given loop, miniaturized Manually Addressable Modules (MAMs) ideal when updating conventional installations to addressable without the requirement to replace the existing conventional devices.

The Junior control panels, along with the rest of our control panel ranges, are third party approved, certified according to the Construction Products Directive and CE marked. Our lifetime warranty is the reflection of Global Fire Equipment’s commitment to develop and supply high quality, reliable panels with a traditional approach to customer care.

The Orion conventional control panel range offers a creatively designed and visually pleasing solution for smaller cost-conscious projects demanding simplicity of operation. Versions available include 2, 4 and 8 zone panels and two styles of repeater.

The outstanding programmable features included in this panel range supplement the facilities commonly available in this type of panel and include: programmable time delay by zone, Day/Night mode, selectable non-latching zones and coincidence detection.

Operation is extremely intuitive, offering simple control and one-button disablement facilities, as well as the one man test mode which provides simple and efficient testing of the system.

Advanced configuration solutions include a dedicated RS422 communication interface allowing connection of up to 4 remote repeater panels, addressable loop interface modules and multiplexed zonal output relays; giving one of the most highly advanced levels of system integration and compatibility existing on the market at this level.

This panel range can be fully integrated in an addressable detection system through the use of GFE-ADLI module.
The GFE range of fire detection devices covers both standard conventional models for compatibility with other systems, and fully analogue addressable models for use with our own advanced communications protocol.

In order to offer both high value and good reliability, the devices feature very simple electronics, highly advanced optical chamber design and advanced detection & discrimination algorithms.

Clean aesthetic low profile lines, dual LED indication, a good range of both discrete and combined variants along with a number of mounting accessories provide a sturdy platform on which to base a system design. Variants include optical smoke, programmable heat and combined optical/heat models, both traditional dip-switch address assignment and advanced auto-addressing options are also available.

Compliance to ENS4 pts 5 and 7 is third party approved by the Portuguese Notified Body CERTIF, in order to ensure CPR requirements are met.

**MANUAL CALL POINTS**

Our manual call point range features two important benefits:

1. The resettable design means that there is no glass to be replaced after activation.
2. A bi-colour LED status indicator for both addressable and conventional models gives a green flashing LED to signal normal operation and a steady red LED to indicate an alarm activation.

In addition, due to our advanced alarm recognition algorithms, activation response is within 1 second.

The range of options has been developed in order to meet the varied installation requirements encountered:

- Flush or surface mount versions including a low profile model.
- Protective flap to help avoid accidental or malicious activation.
- IP54 to IP67 ratings allow installation in demanding environmental conditions.
- Optional in-built loop short circuit isolator for addressable systems.
- Five available colors for specific applications.

**SOUNDERS**

Our stylish range of base-mount and wall-mount sounders offer optional visual indication beacons and are available in both Red and White. Due to the very low current consumption in alarm, which can be as low as 2.5 mA in addressable models, a maximum of 96 sounders may be connected to a single loop. All sounders have four selectable alarm tones and volume adjustment.

The Vulcan 2 base-mount range may be combined with a detector in order to reduce installation costs and improved aesthetics. The addressable versions feature three modes of operation selectable by DIP switch: Standard, Shadow and Auxiliary; giving huge flexibility in a total of 15 variations. For standalone use, coloured blanking covers are available to give either a discrete sounder, or a large surface area visual indication beacon. A maximum of 96 sounders or 64 combined sounder/beacon is connected to a single loop depending on the total loop loading.

The Valkyrie wall-mounted sounder is available in either Red or White and with IP65 rating. A maximum of 32 standard mode addressable sounders may be installed per loop (addresses 94 to 127), or available on request the shadow mode sounder may be utilized in order to free up addresses for additional detection devices. The traditional horn type sounder design offers a very high sound output level and directional sound projection.

The Valkyrie Vox sounder offers a powerful Voice Evacuation solution with up to 5 different voice messages controlled by the addressable panel. These voice messages can be easily customized to suit individual site requirements by recording to PC and downloading via USB. Loop powered power-amplifier (external speaker) versions are available for addressable or conventional systems.

Few manufacturers are able to offer such a powerful and flexible alarm signaling solution for your fire detection systems.

**MODULES**

We recognise that the interfacing requirements of a fire system to other types of system can vary massively from site to site, and following many years of client feedback our wide range now covers the following categories:

**Interface Modules:** mainly loop powered devices that allow connection of external equipment to the loop of our addressable panels, i.e., sprinkler flow switches, electrical distribution panels, fire doors, elevator disablement, gas shut off valves, HVAC control, etc. Our wide range of modules has been developed to provide an integration solution to the many real-world situations that may present themselves.

**Communication Modules:** these provide translation and control of the existing levels of data communication within our systems. With the exception of TCP/IP interfaces all modules of this class offer redundant communications and enhanced diagnostics facilities, both for data loop communication within the fire detection system and to PC based software tools used in Building Management and Integration Systems.

**Protection Modules:** system protection in the form of loop isolation in the case of short circuit is easily overlooked but is exceptionally important in order to achieve a high level of system integrity. The range of loop isolation devices available includes both stand-alone and integrated options built in to our call-points, sounders, I/O Modules and detectors.

**Power Modules:** in order to ensure correct operation in event the most demanding installations, our range of power supplies and battery charger modules have full operation & fault monitoring functions. In addition, we are also able to offer versions of our power supply units with inbuilt interface facilities to provide monitoring and control of external systems, all communicating via the addressable loop circuit for ease of connection.

Please contact us for further details and for our technical datasheets and product manuals.
Placed in the top level of our addressable system integration structure is the PC based software platform, that in conjunction with the panels advanced data output, offers a reliable solution of multi-system supervision and control. Such integration is put in place, with one ADV-COMS interface in each system main panel.

Advanced graphical capabilities available in ODYSSEY software and browser enabled Juno-Web control page, offers a solution to either day-to-day operation or maintenance and technical support purposes. From industrial sites to touristic, commercial, residential or telecommunication infrastructure support sites, that don’t have permanent human presence, all can be remotely managed.

Alternatively, it is also possible to integrate our systems with 3rd party BMS software packages, using well known industry protocols.

Today's building construction technology has an immense variety of resources that lets architects and civil engineers, elaborate the most complex edificiations, each one optimized for a very specific purpose. GFE had that into consideration while creating our middle communications layer, in which our systems have the necessary flexibility and intelligence to cope with those challenges. The ability to have up to 21120 addressable devices sharing the same cause-effect programming and using up to 32 networked sub-panels, secured by redundancy and local intelligence, is a truly remarkable achievement for the industry.

Such integration is possible using our J-NET-INT interface range, which opens the required flexibility to Fire System designers to provide a solution that accommodates virtually any building configuration.

This network level or Data-Loop, as we call it, apart from linking all networked panels into one single decentralized system, also supports active & passive repeater panels, remote printers and mimic panels. All the above communication platforms can be implemented with fiber-optics, RS485 or TCP/IP.

When it comes to field devices, the 96 loops capability in each Juno-Net system, our high end addressable system, warrants that there are no unprotected areas, whatever the building size.

On the other hand, our principle that systems should be as cost-effective as possible and that complexity should be adequate, seamless integration of GFE’s conventional systems with addressable panels detection loop is as simple as connecting any other addressable device.

In conclusion, Global Fire Equipment offers up to four integration levels, with bidirectional independent control, from the simplest conventional system, to the intuitive logical programming of multiple addressable systems, fully controlled from remote locations. These are the necessary means for a fast response to Fire alarm events, with the sole objective of saving human lives and decreasing property loss to a minimum.

The multi-language ODYSSEY graphical software gives you the possibility to control up to 64 Juno-Net systems. In multi-building installations like industrial parks, holiday resorts and many others, it is almost mandatory to have centralized control over the several fire detection systems and the graphical environment makes it simple to operate and monitor any installation of that type.

The configuration mode is password protected and device placement is made by drag & drop, with their associated descriptions being sent automatically by the panel. Interaction with each panel is made through a template of the panel fascia as if you were physically in front of it.

When a Fire or Fault occurs, the location of the incident is displayed in the PC monitor and with just two clicks of a mouse, the zoom to the zone in alarm is accomplished, providing information of the triggering device including selective disablement.

Using the built-in emergency phone number list, the operator can adequately respond to each situation. The printable event log will help you with any diagnostic and/or maintenance check.

A demo version is available where you can explore the software capabilities by operating a dummy installation, after all, ”seeing is believing”. 
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