

Honeywell



FlexES Control

Flexible solutions with the modular fire detection system





APPROVAL REPORT

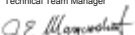
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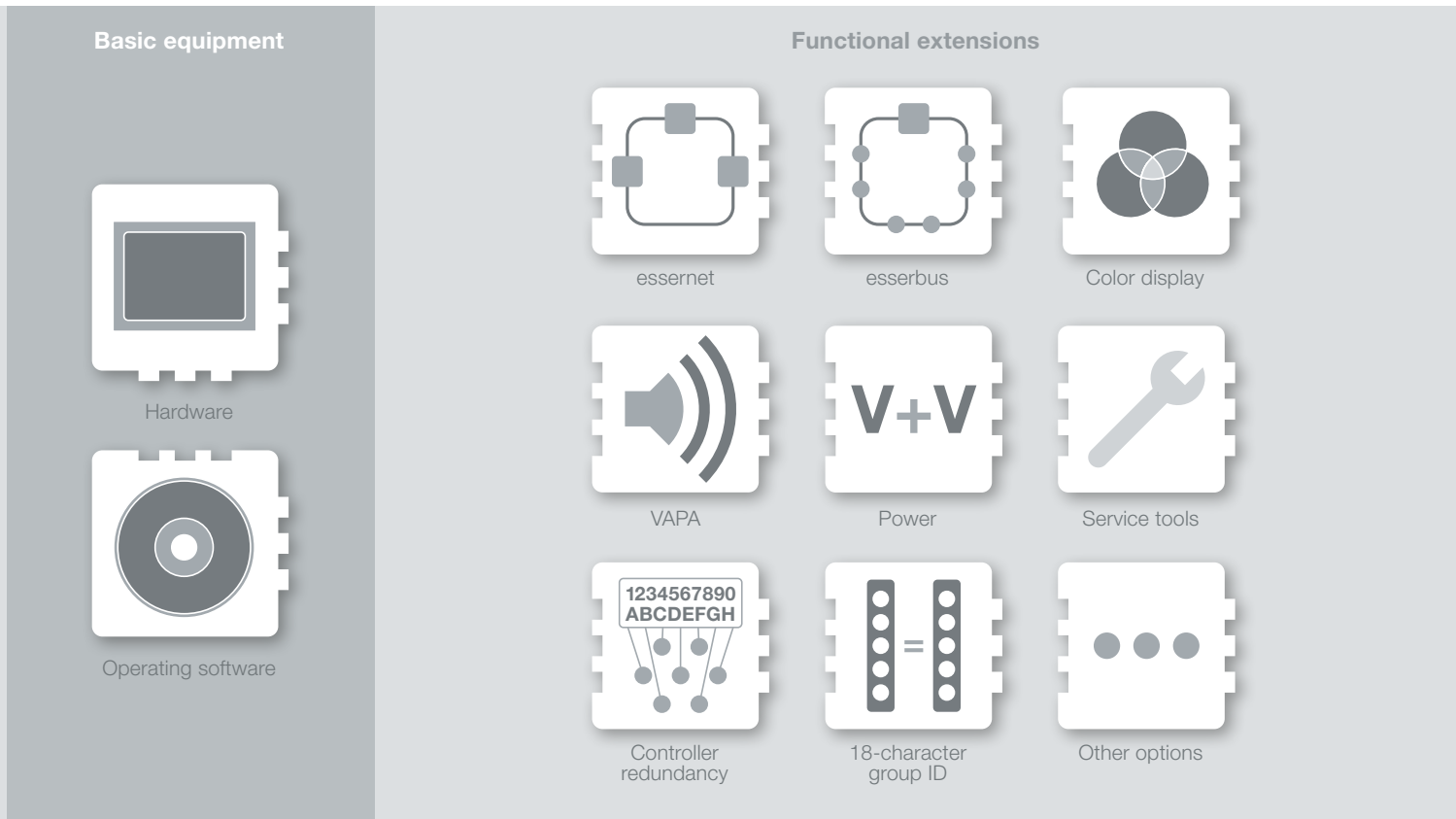
3 October 2014
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FlexES: new perspectives for the future

The FlexES concept: solutions for fire protection, individually designed from modular hardware and the right options



Fire detection systems that can adapt to the challenges of the future have to fulfill a wealth of complex requirements, including precise configuration, expansion to meet new demands, flexibility in adding new functions and components and backward compatibility. They should also feature good looks, ease of use and low life cycle and maintenance costs.

FlexES FACP (Fire Alarm Control Panel) or C.I.E. (Control and indicating equipment) gives you more freedom in planning, autonomy in budgeting and flexibility in operation.

Its modular hardware and software design lets you put together a fire detection system to meet your own individual specifications, and you can adapt it by adding modules which upgrade, extend and scale the system. With FlexES, we can give you exactly what you need, when you need it – solutions that aren't more than you require today but can be expanded tomorrow. Enjoy the benefits of our sophisticated FlexES product and service portfolio and plan cost-effective fire detection systems that are just right for you.

FlexES Control: options unlimited

The flexible central control unit is the basis of this pioneering fire detection technology.

Solutions for fire protection are as individual as the buildings they're planned for. With FlexES Control by Honeywell, fire detection systems can be tailored precisely to user requirements.

The functions of the control unit are based on six different plug-and-play modules which are fast and easy to install, replace or expand. This modular concept means you get a full range of functions without a lot of costly hardware.

Its intelligent hardware architecture reduces inventory expenses, optimizes the availability of spare parts and lowers maintenance costs. FlexES Control offers different types of housings for every stage of expansion, from economical solutions for small premises to large extensions of the system with up to 18 modules.

The new standard for industrial use:

The wide range of conditions that may prevail at large industrial facilities frequently call for special fire protection monitoring solutions.

A big solution in the smallest space

The FlexES central control unit housing comes in various sizes and modern designs. This gives you the option of keeping to a minimum of space or enjoying the most room for wiring. System expansions are supported with a number of housing and extension designs to operate from two to 18 modules.



Elegant and ergonomic, with intuitive operation

What's in it for you:

- Connection design optimized to reduce wiring
- Various housing designs, so you can economize on space or enjoy the greatest ease of wiring
- Modular, cascable power supply design with increased availability
- Integrated redundancy principle in design, adapted to your requirements and including redundant controllers when needed
- Intuitive, easy-to-use operating display panel with action-based background lighting and an operating menu adapted to the premises
- Extended group offset for up to 18 items
- Calculator for offline project planning
- Honeywell SAFE (Soft Addressed Firmware Encoded) addressing as a standard

Choose the look that works



Experience the ease of use and sophisticated design of FlexES Control

With night design, the control elements are limited to those relevant to the functions required, so even novice users can work intuitively without errors. Variable function keys provide extra convenience for operations such as lighting control. The FlexES Control panel can also be used for remote operation, providing comprehensive remote control functions for central control units and networks. But it's not just functional – with such attractively designed housing and compact dimensions, FlexES Control can even be used in public areas.

FlexES Control FX18

The largest design offers all the space you need for expansions up to 18 micro-modules, e.g. max. up to 18 esserbus analog loop cards (or 17 esserbus analog loop cards and one essernet network card) and expandable up to 127 loop devices (per loop). One system supports up to 2,286 digital loop addresses in total.

Features of the FlexES Control panel

- 18 module slots
- Night design
- Loops are started in parallel
- Plug-and-play hardware modules
- Hot plugging and automatic recognition of modules
- Designed for modular expansion
- Single-person inspections
- Cascadable power supply modules
- Software options
- Controller redundancy
- Color display





»FLEXES CONTROL
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CUSTOMIZED SYSTEM FOR
COMPREHENSIVE BUILDING
PROTECTION THAT IS
INNOVATIVE, FLEXIBLE AND
ECONOMICAL. «

Thorsten Koerting, planner

The FlexES concept



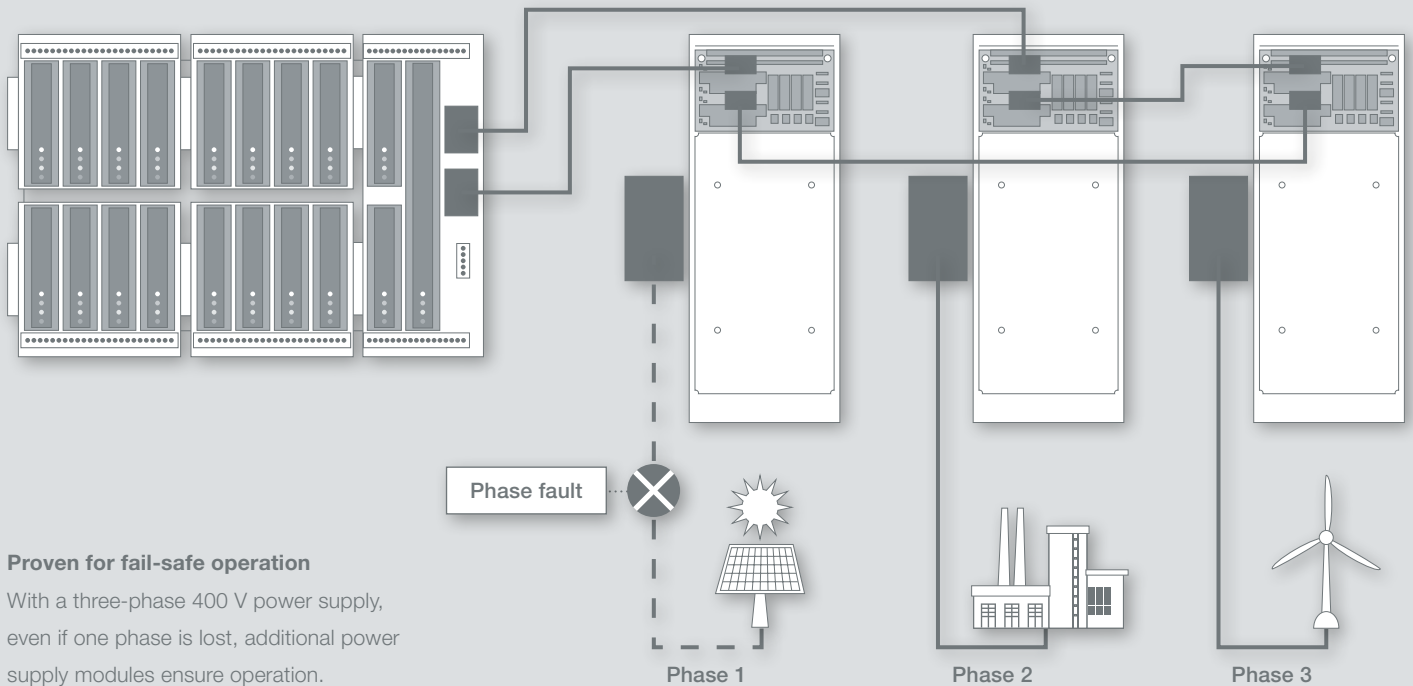
Customized fire protection solutions with modular hardware and a variety of software options

The FlexES system features an innovative hardware architecture and a software platform which supports modular expansion of the scope and functions at any time. The operating software is based on a standard solution for industry, so you enjoy the benefits of upgrades, additions and expansions with greater speed, stability and application to current requirements and have the best possible system at all times.

Don't replace—expand! Software options at a glance:

- essernet for connecting multiple control units
- esserbus for integrating up to 127 bus devices per loop
- Power systems dimensioned to handle system extension as needed
- Interface for voice alarms
- Controller redundancy for the greatest reliability and system security
- Service tools for optimal maintenance

Greater reliability and functionality



Reliable in every phase

The FlexES Control is the only central control unit on the market which has integrated, FM & VdS/EN 54 approved emergency redundancy. Maintaining important functions even if the master CPU fails enhances the operational capability of the system. This enables monitoring of up to 48,000m² or more than 512 detectors without controller redundancy.

Redundancy for greater availability

Redundancy of the control modules provides additional reliability and security. If the master control module fails during operation, the slave control module takes over all operations of the fire alarm control panel in almost no time.

Fast self-configuration

Automatic transfer of the system parameters from the master module ensures that the slave module assumes its role in the system with no further action required. After the autoconfiguration is concluded, the fire alarm control panel is ready to handle the greater demands for operation.

Three times secure for the power supply

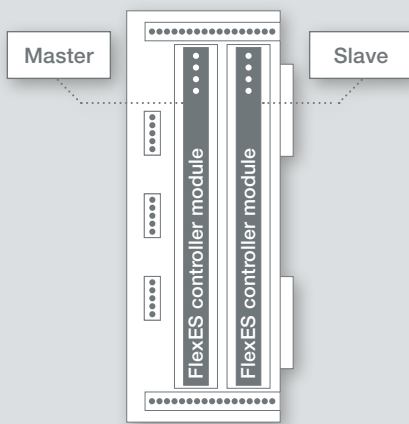
The FlexES Control power supply is particularly well protected against failure. It is designed to handle three phases in a loop. If one power supply module fails or a phase fault occurs, the remaining two power supplies ensure uninterrupted operation.

Individual key assignments

The F1 to F4 function keys on the FlexES Control can have individual switching functions assigned at three access levels. This assignment of functions can vary at the different levels. For example, if the F1 function key is configured for “User defined action or deactivation” of adjacencies at the first access level, it can be used for “Defined shutdown” at the second level. Organizational controls of the central unit can be provided with a simple button for authorized persons at various levels of access (such as the installer or service level).

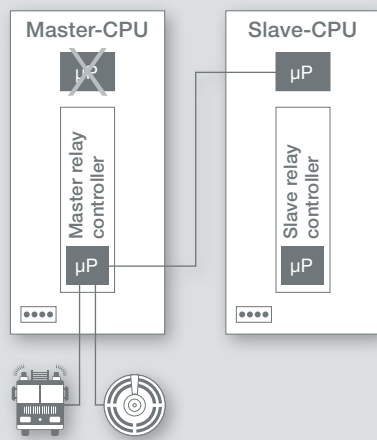
Standards-compliant redundancy

If the master control module fails, the slave module assumes all operating functions of the fire alarm control panel.



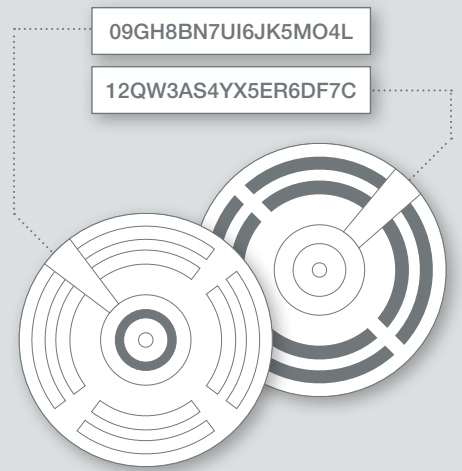
Switching for emergency operation

If the main CPU of the master module fails, the main CPU of the slave module can assume the function of the master relay controller.



Multi-character group number

The group offset now enables simultaneous expansion to as many as 18 alphanumeric characters.



Facility-specific function key assignment

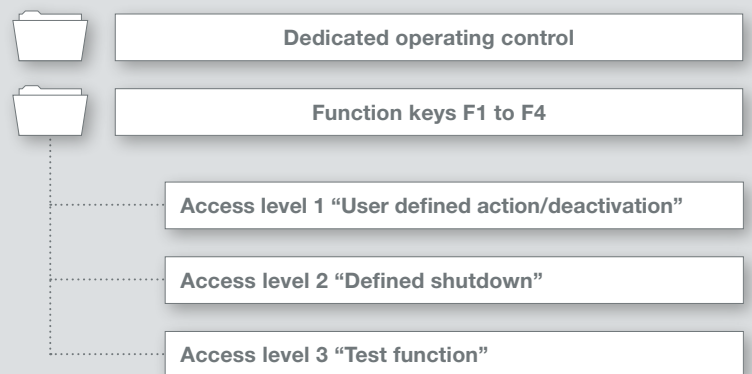
All switching and control functions which could previously be managed via control inputs are now available directly on the FlexES Control using the function keys and can be linked to a facility-specific text.

Dedicated operating menu

Each FlexES Control can have a dedicated operating menu created using tools 8000. It can be defined and used as required at each access level.

- Facility-specific operation controls
- Control functions, for example for sensors, detectors, zones and primary lines (on/off test)
- Enabling/disabling of signal templates for alarm devices

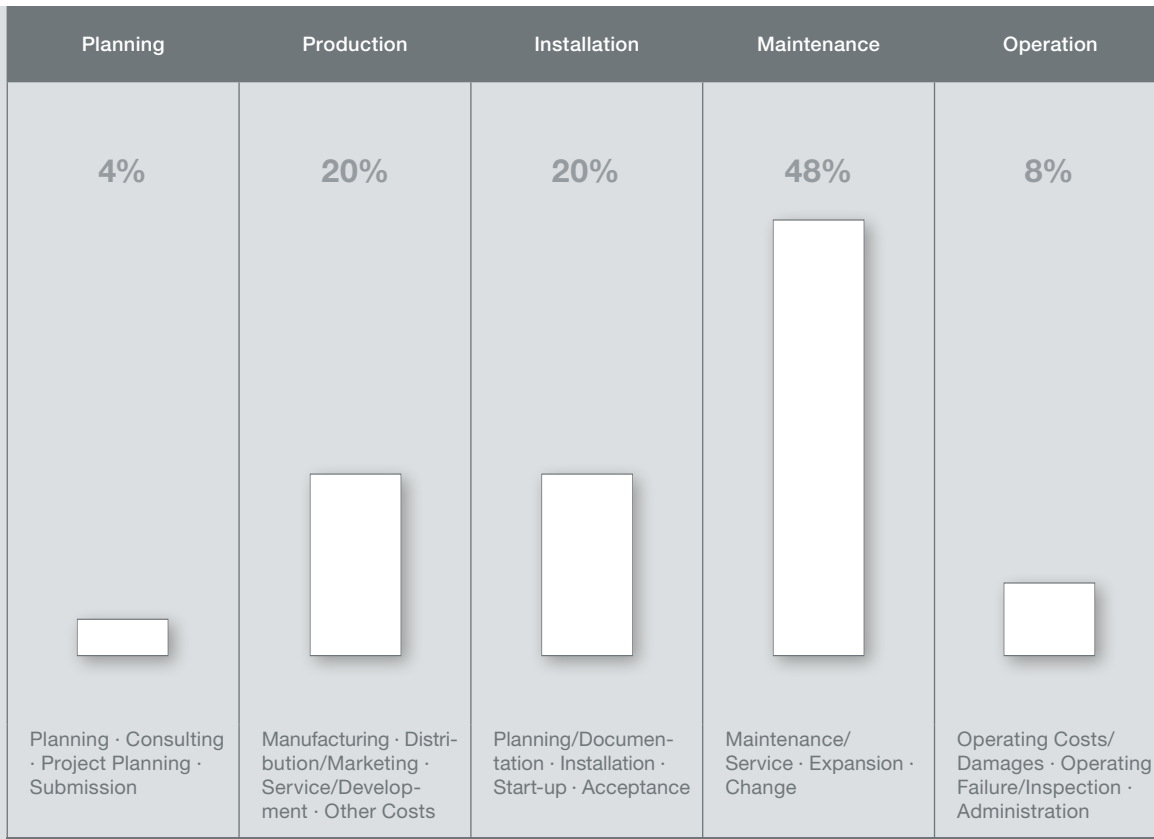
Application example for the three access levels





tools 8000 –
the all-in-one software

Cost per detector call point throughout the entire life cycle



The maintenance costs form the largest cost factor of a fire alarm system. Here the employment of tools 8000 effectively saves costs and effort.

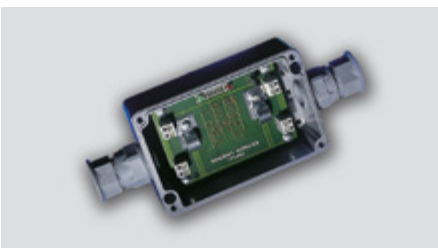
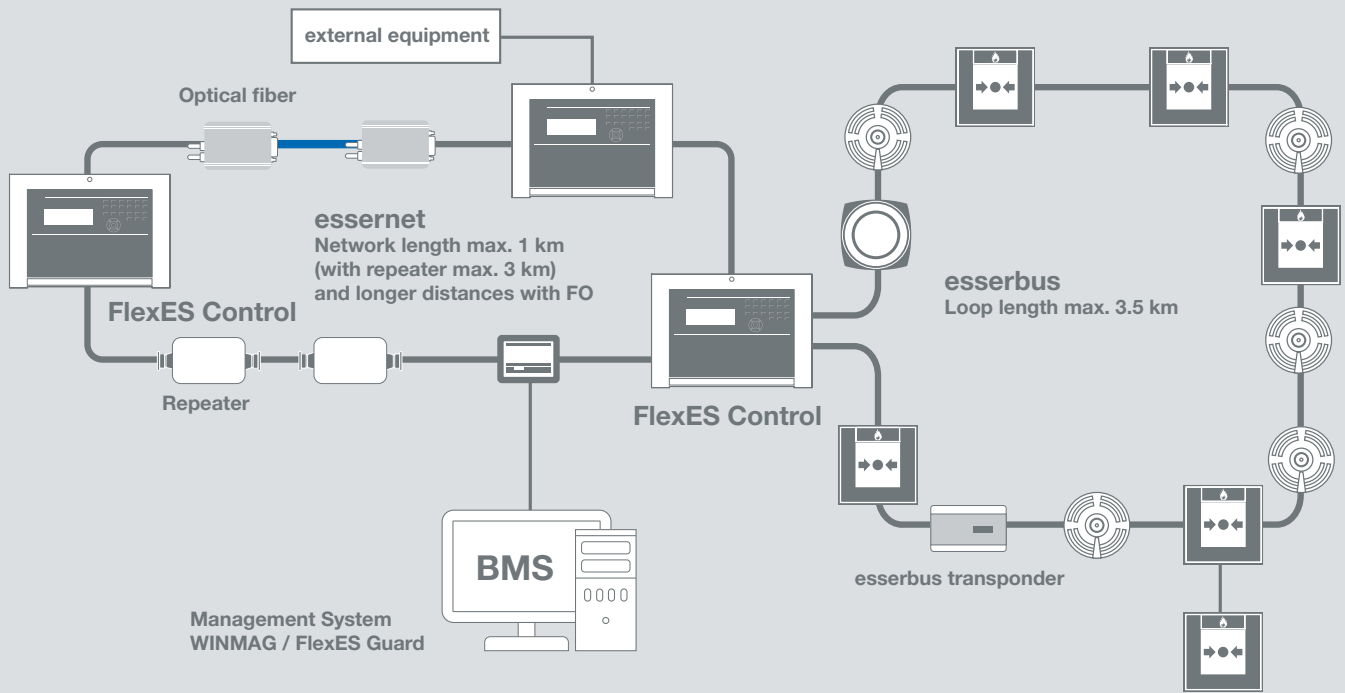
With tools 8000, you can act independently of place and time. You program your alarm system where and when you want to, even offline. After you have defined all configurations entered, you can easily transfer the data on site into the panel and to the bus devices via the loop, respectively.

Thus tools 8000 is both customer data editor and service software in one. It replaces three previously needed programs in Windows and additionally supports importing of old data created with the DOS editor. It raises the user comfort considerably and offers quick and concise programming – from installation to maintenance. With tools 8000, you not only configure the control unit, you also configure the loop. Even individual

diagnosis and parameterization of the detector are possible. Especially convenient: you hardly notice that you are sitting at the PC, as tools 8000 recreates the original control panel view on-screen and graphs all system components on a standard user interface. tools 8000 complements the FlexES Control panel and accompanies an alarm system through all of its life cycle phases.

Thus, using tools 8000, it is possible at any time to check and restore the configured desired state of a fire alarm control panel already in operation. Start-up, programming, loop diagnosis and maintenance – including a user-friendly event log, tools 8000 does not leave any wish unfulfilled in terms of system care and optimization.

The essernet – flexible and powerful



Top: Repeaters amplify the signal even over distances stretching kilometers.

Bottom: As a standard cable, the I-Y(ST)Y communication cable is a low-cost alternative.

The essernet connects multiple control units and network components to one non-hierarchical network for economic and convenient monitoring of extensively arranged building complexes. Depending on the object conditions, the essernet can be operated using all types of cable. Up to 31 panels can communicate in the network.

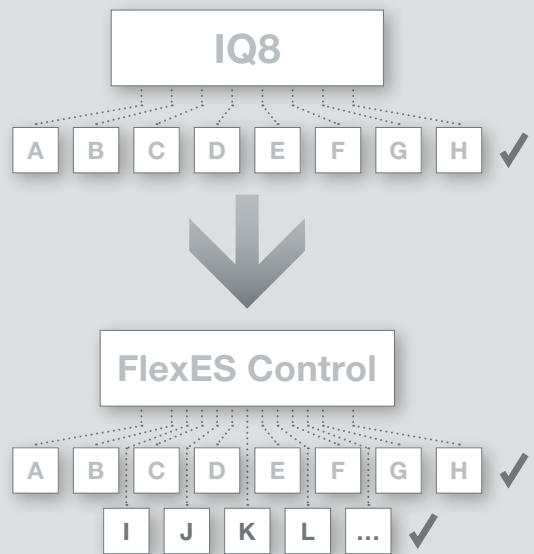
Because of the modular design, all changes can be quickly and uncomplicatedly programmed from one point. Synergy and symbiosis – multiple fire alarm control panels communicate via essernet and visualize their reports on one joint display and operating panel for integrated alarm systems.

essernet ranges

Distances of up to 700 m between two terminals can be bridged via a communication cable and with a data rate of 62.5kbaud. With twisted-pair data cables, up to 1,000m can be bridged: and with a data rate of 500kbaud. Through the usage of two repeaters, the distance between the terminals can be tripled. Even distances of up to 20km between two panels can be realized by using fiber-optics and corresponding converters.



Simple integration of existing systems



Ready for the future

The FlexES system lets you plan exactly as you need to and adapts to any stage in changing conditions, such as when additions are made to the facility. The modular expansion concept and the economical options for installation and maintenance mean cost savings and transparency for you over the system's entire life cycle.

- Precise system configuration with flexible options for conversion and upgrades
- System expansion up to 18 modules
- Backward compatibility supports integration of existing systems
- Controller redundancy if additional safety is required

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