

FIRE DETECTION DIGITAL FAP500 SYSTEM





FAP500 SYSTEM

High system flexibility

FAP500 is a smart modular system, compliant with EN54 standard, which relies on the most technologically advanced solutions on the market. It can connect via network with other control units, interface with extinguishing systems and features device teach-in functionality, available in any installation mode.

It guarantees excellent performance, straightforward installation and simple daily event management.

The system is modular, flexible and includes 4 control unit models:

- digital control unit with 1 loop, mod. FAP541
- digital control unit with 2 loops expandable up to 4, mod. FAP544
- digital control unit with 4 loops expandable up to 8, mod. FAP548
- digital control unit with 8 loops expandable up to 16, mod. FAP5416

The line can be connected in 3 different modes, with automatic device teach-in (detector, push-button, interface, etc.) and built-in short circuit isolator:

- closed loop line
- open line (in/out connection)
- open line (parallel connection)



FAP500 SYSTEM



→ SHOPS



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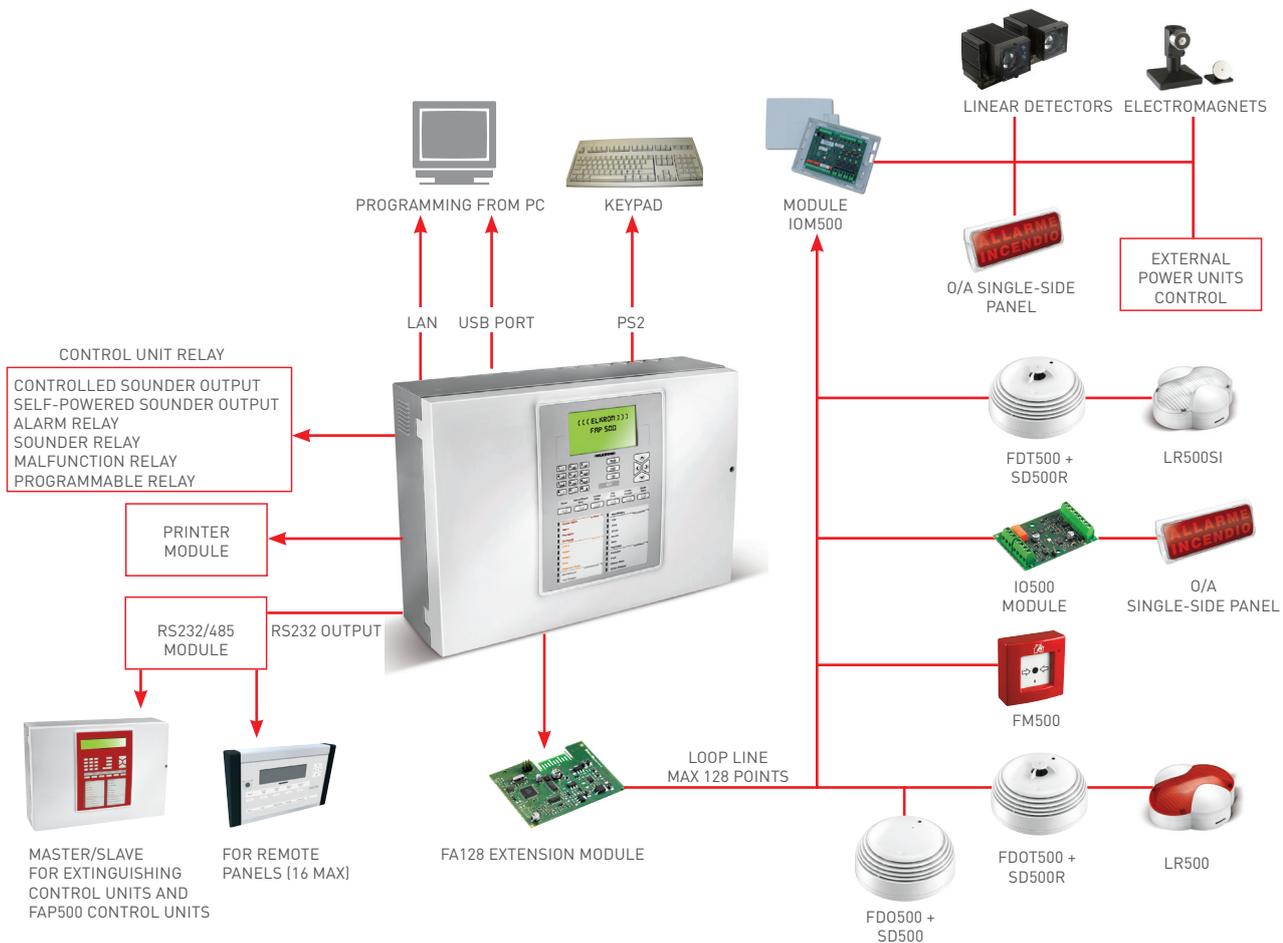
FAP500 SYSTEM

Easy programming

Thanks to its inherent flexibility, this system allows to meet all installation needs, making for a simple and fast setup. Each configuration type can be easily programmed via either control unit keypad or PC. All control units are prearranged for communicating within the network through a LAN TCP/IP interface, a communication port for Master/Slave functions, a printer connection port, an optically isolated RS485 port for interfacing repeater panels and extinguishing control units, a USB port for downloading data and system configuration via PC, a communication interface for transmitting events via GPRS/GSM/PSTN. Everything can be kept under control even remotely, thanks to the new software platform allowing communication between Elkron systems and remote transmission of system data.

Connectivity

- RS485 communication port
- Communication port for LAN TCP/IP network
- Printer connection port
- Communication port for MASTER/SLAVE connection
- Connection for 16 remote panels
- Configuration/programming/remote assistance software management via PC
- Managing graphic maps / remote management
- External communication via GSM
- External communication via PSTN



A DETECTION SYSTEM THAT COMMUNICATES CONSTANTLY

The control units of the FAP500 system are modular: they are supplied with a standard configuration and can be expanded by adding peripheral devices and extra functions. It is possible to manage a minimum of 1 up to 16 addressed loops.



FAP541

SPECIFICATIONS	FAP541 item no. 80SC6100121	FAP544 item no. 80SC6200121	FAP548 item no. 80SC6600121	FAP5416 item no. 80SC6700121
Standard configuration	1 loop	2 loops expandable up to 4	4 loops expandable up to 8	8 loops expandable up to 16
Certified EN54 part 2 and part 4	0051-CPD-0240	0051-CPD-0239	0051-CPD-0238	0051-CPD-0237
Possibility of managing up to 128 points per loop	yes	yes	yes	yes
Point teach-in and point logic address	yes	yes	yes	yes
240*128 - 4.7 " backlit graphic display	LCD display 4 x 40 characters	yes	yes	yes
Event log: 1,000 events	yes	yes	yes	yes
Chronological history directly shown on display	yes	yes	yes	yes
10 passwords programmable on 3 levels	yes	yes	yes	yes
480 programmable zones	yes	yes	yes	yes
Possibility of monitoring detector signal/noise ratio level	yes	yes	yes	yes
Real time clock with built-in buffer battery	yes	yes	yes	yes
Non-volatile memory	yes	yes	yes	yes
Alarm data saved on devices	yes	yes	yes	yes
Monitoring of the first 10 devices entering alarm status with graphic and numerical time-trend visualisation	yes	yes	yes	yes
Control unit outputs: 4 (sounder, alarm, malfunction, programmable [power failure/exclusion])	yes	yes	yes	yes
Internal buzzer	yes	yes	yes	yes
Exclusion of individual point /zone	yes	yes	yes	yes
Power supply: 230 Vac	yes	yes	yes	yes
Common dialogue protocol for all system control units	yes	yes	yes	yes
Communication port for LAN TCP/IP network	yes	yes	yes	yes
Printer connection port	yes	yes	yes	yes
Communication port for MASTER/SLAVE connection	yes	yes	yes	yes
USB port for connection to local PC for programming via software	yes	yes	yes	yes
Connection for 16 remote panels	yes	yes	yes	yes
Configuration/programming/remote assistance software management via PC	yes	yes	yes	yes
Managing graphic maps / remote management	yes	yes	yes	yes
Dimensions (W x H x D): 490 x 350 x 145 mm	yes	yes	yes	yes

A DETECTION SYSTEM THAT COMMUNICATES CONSTANTLY

The FAP500 platform is a cutting-edge communication solution which enables interaction with all Elkron systems.

By adding several optional modules, it is possible to create a complete and versatile system able to meet all market demands.

FA128 item no. 80SC3310121: 1 loop extension module

The extension module enables to expand the control unit by 1 loop line or 2 open lines.

It is possible to connect up to 128 points (detectors, push-buttons, interfaces, etc.). The module, to be directly installed on the control unit backplane, enables the acquisition and control of the connected devices. Connection with devices can be implemented with closed loop line or with open loop line. Configuration is made during programming.



FA128

I0500 item no. 80SC3A00121: Multipurpose I/O digital module 1 input/1 output

The interface allows to connect stable conventional detectors with dry contacts (NC/NO), probes or other pulse-actuated devices, and to control actuators (panels, electromagnetic stops, sounders or other). Certified EN54 part 17 and part 18, No. 1293-CPD- 0137.

I0M500 item no. 80SC3B00121: Multipurpose I/O digital module 4 inputs/4 outputs

The interface features are the same as module I/O 1/1. The interface allows to connect stable conventional detectors with dry contacts (NC/NO), probes or other pulse-actuated devices, and to control actuators (panels, electromagnetic stops, sounders or other), but it is equipped with 4 inputs and 4 different programmable outputs. Certified EN54 part 17 and part 18, No. 1293-CPD-0220.



I0M500

RS232/485 item no. 80IT1410121

The interface is a dedicated device able to convert the TTL interface of the motherboard of control unit FAP 54 into an RS485 serial line. It enables communication between all system devices connected to the RS485 (remote panels, extinguishing control units, etc.).

LAN/TCP/IP500 item no. 80IT1510121: Network interface

Allows to interface the system on a dedicated LAN network and to send remote parameter enquiries via software.



LAN/TCP/IP500

ITS500 item no. 80IT1610121: Printer interface

The interface is a dedicated device which can connect to the system through the RS485 communication port. It provides alarm, fault, arming and maintenance information.

FKP500 item no. 80KP5200121: Repeating panel

The repeating panel enables active and constant monitoring of every event. FAP control units can manage up to 16 remote panels; connection to the control unit and to other panels (if any) is made via RS485 optically isolated port. Panel identification address is made via on board switch. Information is displayed on a backlit display with 4 lines x 40 characters. Power supply, exclusions/ reset, alarms and malfunctions are indicated by a number of LEDs. A keypad with specific keys for commands to and from the control unit is available for the user.

SOFT/FAP500 item no. 80SW3500121: Configuration software

The software allows system configuration acquisition by reading the data stored on the control unit. It enables to download and programme the configuration and parameters of each single point, either locally or remotely.

GRAPHIC MAPS/FAP500 item no. 80SW3600121: Management software

The software allows, either locally or remotely, to check control unit status, alarm and malfunction warnings and to display individual points of the system with graphic maps.

ITB500 item no. 80IT1710121: Bathroom pull cord interface

The bathroom pull cord interface can connect a button to a pull cord, present in all hotel bathrooms, and identify it with a unique address on the FAP500 series digital smoke detection system.

ITG500 item no. 80IT1810121: 4-20 mA interface for gas detectors

The interface is used to connect a 4-20mA gas detector. Module operation is of multi-threshold type and alarm thresholds can be either selected via micro switches or programmed through the control unit. The interface can be set at alarm condition generation for excessive or insufficient gas presence.

SMOKE DETECTORS. CROSS-CHECK MAXIMUM EFFECTIVENESS WITH MINIMUM CHANCE OF FALSE ALARMS

FD0500 item no. 80SD4800121: Photo-optical smoke detector

Smoke detectors work according to the light scattering principle caused by smoke particles present in the air. The smoke detector features an automatic gain control function; a microcontroller calculates reading compensation to keep constant sensitivity and corrects any level increase due to dust depositing into the analysis cell. Smoke detectors should be installed in places protected against draughts which may divert the flow of combustion particles and in places where the activities usually performed do not cause the combustion of gases.



FD0500

FDT500 item no. 80SD5700121: Heat detector

Heat detectors control the temperature inside the area where they are installed. A micro controller analyses and compares the signal received from a precision heat detector of the NTC type, and activates the alarm if the temperature goes over 58°C.



FDT500

FDOT500 item no. 80SD9K00121: Optical heat detector

Dual-technology detectors (smoke-heat) work according to the light scattering principle caused by smoke particles present in the air (TYNDALL effect) and on temperature monitoring within the area where they are installed.

A micro controller analyses and compares the signal received from a precision heat detector of the NTC type, and activates the alarm if the temperature goes over 58°C. The smoke detector features an automatic gain control function; a microcontroller calculates reading compensation to keep constant sensitivity.



FDOT500

FDTD500 item no. 80SD9000121: Differential heat detector

Differential heat detectors control the temperature increase inside the area where they are installed. A micro controller analyses and compares the signal received from a precision heat detector of the NTC type, and activates the alarm if the temperature increases by over 5°C per minute.



FDTD500

SPECIFICATIONS	FD0500 item no. 80SD4800121	FDT500 item no. 80SD5700121	FDOT500 item no. 80SD9K00121	FDTD500 item no. 80SD9000121
Certified	EN54 part 7 and part 17, No. 1293-CPD-0138	EN54 part 5 and part 17, No. 1293-CPD-0140	EN54 part 5 class A1, part 7 and part 17, No. 1293-CPD-0139	EN54 part 5 class A1R and part 17, No. 1293- CPD-0141
Supply voltage	20 Vdc (modulated voltage from -15% to + 10%)			
Average absorption at rest	250 uA @ 20 Vdc			
Alarm absorption	2 mA @ 20 Vdc			
Static alarm threshold	-	58° C	58° C	58° C
Operating temperature range	0 ÷ 50° C			
Weight	70 g			
Dimensions (mm)	ø 90 x 31 (H)	ø 90 x 40 (H)	ø 90 x 40 (H)	ø 90 x 40 (H)

BASES FOR DIGITAL SENSORS

SD500 item no. 80SD4K00121: Standard base for 500 series digital detectors

SD500M item no. 80SD4S00121: Standard base for 500 series digital detectors - 10 pcs

SD500R item no. 80SD5K00121: Standard base with alarm repeater 500 series for digital detectors

SD500RM item no. 80SD6500121: Standard base with alarm repeater for digital detectors 500 series - 10 pcs



SD500

DIGITAL PUSH-BUTTONS

FM500 item no. 80SB6000121: Manual reset push-button, with teach-in circuit and short-circuit isolator.

Fire alarm push-buttons are used for signalling an alarm manually.

To use the manual reset push-button model just press the glass in the middle in order to push it inwards, thereby operating the switch. These push-buttons are provided with a special tool to be used to reset the glass and open the cover.

The alarm status is indicated by the switching on of a red LED.

Certified EN54 part 11 and part 17, No. 1293-CPD-0135.

FMR500 item no. 80SB6100121: Glass-break push-button, with teach-in circuit and short-circuit isolator.

To use the glass-break push-button model just press the glass in the middle in order to push it inwards, thereby operating the switch. These push-buttons are provided with a special tool to be used to open the cover and to replace the glass.

The alarm status is indicated by the switching on of a red LED.

Certified EN54 part 11 and part 17, No. 1293-CPD-0136.



FM500

Elkron è un marchio commerciale di Urmec S.p.A.
Via Bologna, 188/C | 10154 Torino (ITALY)

ELKRON
T +39 011.39.86.711
F +39 011.39.86.703
www.elkron.com
info@elkron.it