FIRE DETECTION
CONVENTIONAL
C400 SYSTEM

FIRE DETECTION

ELKRON

EFFICIENT AND MODULAR

Elkron fire detection systems protect your business and grow with it

Elkron's conventional fire detection range is flexible and complete and offers the best solutions for applications in the industrial and tertiary sector.

Elkron fire detection systems are versatile and modular, ensuring full system scalability. The new **C420** control unit can configure from 4 to 20 zones using optional ML420 modules.

The control units of the 400 Series are compatible with the entire range of Elkron conventional detectors. Finally, the intuitive user interface makes system programming and management simpler and quicker.

Main features of conventional control units:

- Fully microprocessor controlled
- Can configure from 2 to 20 zones
- Non-volatile memory
- Programmable alarm threshold
- Simple, intuitive user interface
- Up to 32 conventional detectors per zone
- 1 programmable relay output for each input

SHOPS

PUBLIC BUILDINGS

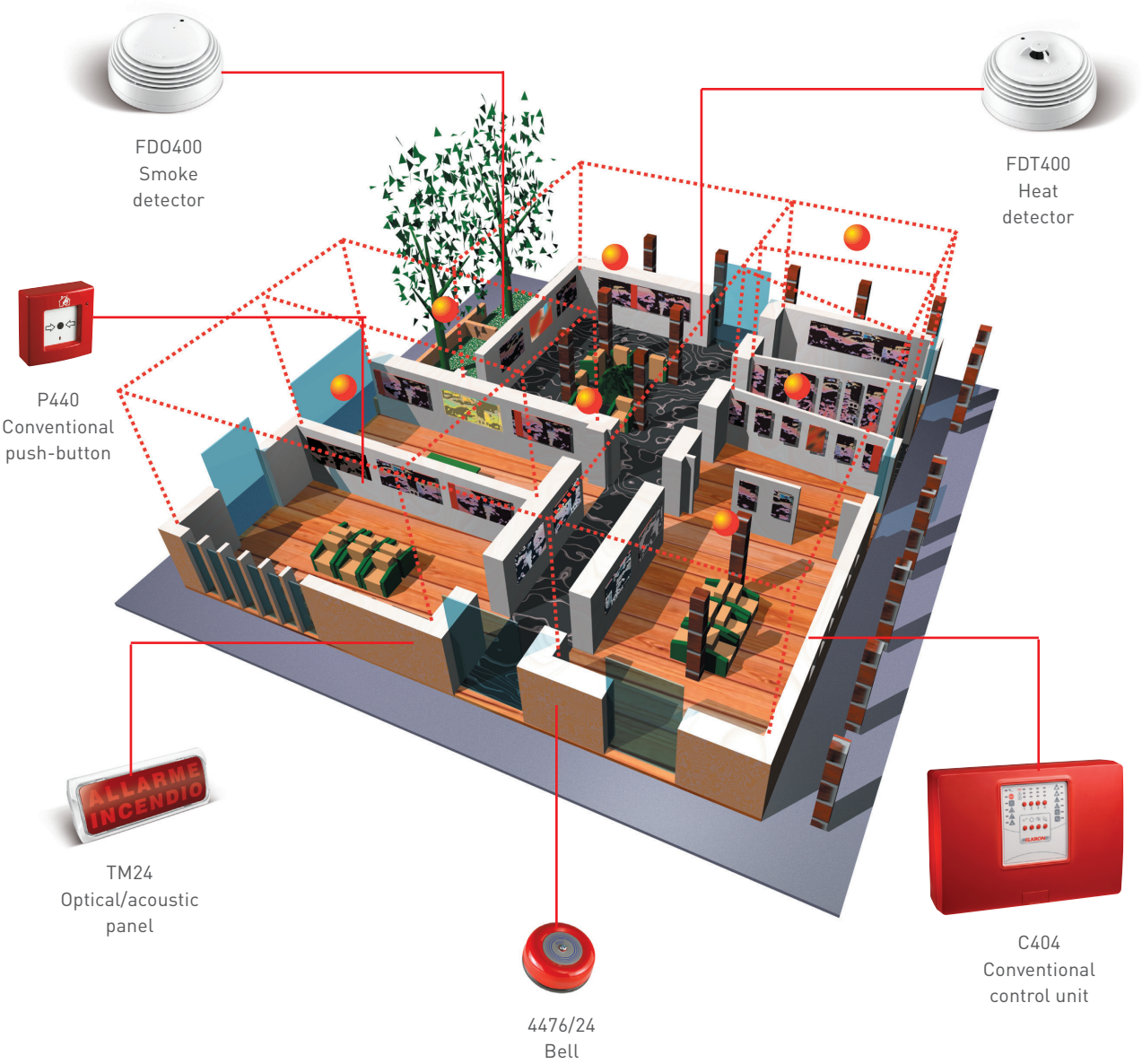
OFFICES

WAREHOUSES

SIMPLE, COMPLETE, VERSATILE

The 400 Series conventional fire detection system by Elkron is easy to install and manage, thanks to its functionalities and wide range of accessories. Designed to meet the installation requirements of small- and medium-size systems in residential, industrial and office buildings.

System events are stored on a non-volatile memory and visualised via simple icons. The system can be programmed using the buttons on the control unit front panel. The versatile systems of the 400 Series allow, for instance, to set a different alarm threshold for each zone (single and double/multiple consensus), to expand the system's capacity up to 20 zones and to have a programmable relay output for each control unit input.



2 AND 4 ZONES: C402 AND C404 CONTROL UNITS

Control unit with micro processor for 2/4 zones
Fire detection control units C402 and C404 control up to two and four independent zones, respectively, with a maximum of 32 devices per zone. Each line is considered as a zone and can be either activated or deactivated via a command from keypad.

The control unit has two outputs: one general alarm sounder output activated with at least one zone in alarm status, and one general malfunction output activated when a malfunction condition occurs either on control unit or in a zone.
General alarm sounder output can be either activated or deactivated via keypad. Other relay, general alarm and zone alarm outputs are available on optional relay board.

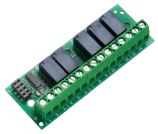
It is possible, for each single zone independently, to decide whether alarm notification is to be obtained with one alarmed device only (single consensus) or with at least two alarmed devices (double consensus). This allows to avoid false alarms.

SPECIFICATIONS	C402 item no. 80SC8000121	C404 item no. 80SC8400121
Number of zones	2	4
Certified EN54 part 2 and part 4	No. 0051-CPD-0338	No. 0051-CPD-0337
Power supply	26.4 Vdc	
Pre-alarm absorption (single consensus): mA	20mA	
Alarm absorption (double consensus): mA	40mA	
Maximum current / Maximum external load	1.9 A/1.6 A	
Double threshold balanced lines	•	
Supervised sounder output	24 Vdc @ 500 mA	
Field output	24 Vdc @ 500 mA	
Malfunction relay output	24 Vdc @ 1 A	
Material	ABS	
Electric output protection	•	
Non-volatile memory	•	
Battery charge control depending on environment temperature	•	
Battery charge cut	•	
System keypad	•	
Exclusion of single lines	•	
Zone warnings	LED	
Batteries	2 x 7 A - 12 Vdc batteries	
Operating temperature	-5° C ÷ +50° C	
Dimensions	340(L) x 240(H) x 96(D) mm	

Accessories for conventional microprocessor control units

Optional output module
Optional modules MR402 (item no. 80SC5410121) and MR404 (item no. 80SC9810121) have 2 and 4 dry contact relay outputs, respectively, allowing to differentiate alarm notifications from each zone.
→ Relays in each zone are activated:
- at transition to the alarm status of one single device (zone programmed to single consensus);
- at transition to the alarm status of two or more devices (zone programmed to double consensus).

→ Optional modules MR402 and MR404 also feature one dry contact relay output signalling the alarm condition of any zone in the control unit.
- Contact type: dry contact exchange.
- Power supply: 26.4 Vdc.
- Maximum current 1A with resistive load



MR402

FROM 4 TO 20 ZONES: THE NEW C420 CONTROL UNIT

C420 control unit item no. 80SC8600121 NEW

C420

The new conventional control unit is modular and can control from 4 zones (standard configuration) up to 20 (with optional ML420 modules), to which it is possible to connect up to 512 devices. Each zone can manage up to 32 points or conventional devices, while the overall number of devices that can be managed by the control unit is 512. Each zone is associated to a relay that is activated when the zone enters an alarm condition.

The control unit also features the following relay outputs: one alarm output, one sounder output, one malfunction output, one programmable output for activation in case of power failure or exclusions, one supervised sounder output. Four more supervised sounder outputs can be added with the optional module MR420. Each of these outputs can be associated independently to one or more zones.

The control unit features an alphanumeric 4x40 display and a 12-key keypad.
It is also possible to connect a PS2 keypad for easier user input during the programming phase.
The control unit features an event log that can store up to 1000 events.

Main features

- Compliant with EN54 standard part 2 and part 4. No. 0051-CDP-0382
- Number of lines: 4 expandable up to 20
- Number of zones: 4 expandable up to 20
- Power supply: 25.5 Vdc ± 5% under no load conditions
- Maximum external load: 3 A
- Alarm absorption (single consensus): 20 mA
- Alarm absorption (double consensus): 40 mA
- Supervised sounder output: 24 Vdc 500 mA
- Field output: 24 Vdc 1A
- Malfunction relay output: 30 Vdc 1A
- Non-volatile memory: yes
- Exclusion of single lines: yes
- Info visualisation: 40x4 LCD display
- Battery: 2 x 12 V 12 A
- Material: ABS Cover - Painted metal base
- Dimensions (W x H x D): 490 x 350 x 149 mm

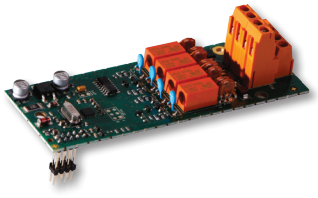
Accessories for C420 control unit NEW

ML420 item no. 80SC0910121: Extension module with 4 inputs/ 4 relay outputs

- Contact type: NO/NC dry contact, selectable via jumper
- Maximum applicable voltage 30 Vdc
- Maximum current 1A with resistive load

MR420 item no. 80SC0810121: Module with 4 supervised outputs

- Output voltage 24 Vdc
- 3300 Ω end-of-line resistor
- Maximum output current 250 mA
- Internal protection circuit - resettable



ML420

CONVENTIONAL SENSORS

FDO400 item no. 80SD7U00121: Low-profile 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.

FDO400

FDT400 item no. 80SD8U00121: Low-profile 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.

FDT400

FDTD400 item no. 80SD1V00121: Low-profile 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.

FDOT400 item no. 80SD9U00121: Low-profile 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.

FDTD400

SPECIFICATIONS	FDO400 item no. 80SD7U00121	FDT400 item no. 80SD8U00121	FDTD400 item no. 80SD1V00121	FDOT400 item no. 80SD9U00121
Certified	EN54 part 7 Certification no.: 1293-CPD-0189	EN54 part 5 class A1S Certification no.: 1293-CPD-0179	EN54 part 5 class A1R Certification no.: 1293-CPD-0180	EN54 part 5 class A1 and part 7 Certification no.: 1293-CPD-0178
Power supply	20 Vdc (modulated voltage from -15% to + 10%)			
Average absorption at rest	65 µA @ 20 Vdc	40 µA @ 20 Vdc	40 µA @ 20 Vdc	65 µA @ 20 Vdc
Alarm absorption	23 mA @ 20 Vdc			
Minimum reset time	300 ms			
Operating temperature range	-10° ÷ +55° C			
Max. relative humidity	93%			
Material	ABS V0			
Dimensions	ø 90 x 31 (H) mm	ø 90 x 40 (H) mm		
Weight	70 g			

BASES FOR CONVENTIONAL SENSORS

SD500 item no. 80SD4K00121: Standard base for 400 series conventional detectors

SD500M item no. 80SD4S00121: Standard base for 400 series conventional detectors - 10 pcs

SD500RL item no. 80SD1W00121: Standard base with relay output
Through its output it is possible to control an outdoor visual repeater directly (with auxiliary power unit). Dry contact relay output: 1 A @ 30 V

SD500

CONVENTIONAL PUSH BUTTONS

P445 item no. 80SB3500121: Red glass-break alarm push-button.
Conventional glass-break alarm push-button

P440 item no. 80SB3800121: Red manual reset alarm push-button.
Conventional manual reset alarm push-button

2570WP item no. 80SB3100123: Red manual reset alarm push-button.
Conventional manual reset alarm push-button for outdoor use, with reset key

P440

2570WP

SPECIFICATIONS	P445 Item no. 80SB3500121	P440 Item no. 80SB3800121	2570WP item no. 80SB3100123
Actuation type	breaking	manual reset	manual reset
Certified	EN54 part 11 Certification no.: 1293-CPD-0169	EN54 part 11 Certification no.: 1293-CPD-0168	EN54 part 11
Visual alarm repetition	red LED		
Alarm absorption	20 mA @ 18 Vdc		
Max current			3A
Dimensions	110 x 110 x 42 mm	110 x 110 x 42 mm	110 x 110 x 43 mm
Degree of protection			IP67
Operating temperature range	-10 + 55° C		-25°C + 70° C
Relative humidity	93% +/- 2% non condensing		
Weight	100 g		110 g

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