Fire detection control panels

CA3000

DEF: 50 years of experience

50 years
1958 — 2008

CA3000 is a totally addressed, modular analog Control and Indicating Equipment for fire detection, based on interactive and advanced functional principles and totally innovative conception.
Associated with the new range of Orion interactive detectors, CA3000 control panel offers several functionalities that will make your security system reliable and safe.
Compatible with the previous ranges of detectors, CA3000 panel is the ideal solution both for maintenance of the existing sites and to perform their upgrading to the new technologies.

Interactive fire detection system

CA3000 control panel is able to handle 1.600 addresses, split over 10 loops with maximum 200 addresses each, or 640 addresses split over 20 open lines with 32 addresses each.
To comply with all possible system's architectures, the user control panel can be doubled and located also remotely and, via a dedicated bus, it is also possible to connect remote indication panels to report the status of even a single part of the system's zones. MODBUS output allows the panel to be completely controlled by a PC based remote location and to be easily integrated with any supervision system.

Innovative architecture, of the system

Thanks to very large backlit graphical display (16 lines with 40 characters each), CA3000 user control panel guarantees easy understanding of the information and very simple operation.
It is possible e.g. to view the various instructions on the display according to the events that might occur, so as to quickly remind to the safety personnel the procedures to follow.
CA3000 control panel is able to manage up to 400 commands groups with sophisticated and flexible logics related to the events and also allows directly activation from the keyboard of any single commands group.

Simple use and clear indications designed for the user

CA3000 control panels can be connected in a real network of panels that satisfy all safety requirements.
Up to 16 control panels on a dedicated network with each panel being configured to display the status of all other panels or just part of them.
In its maximum configuration the system is therefore able to handle up to 25.600 addresses, split over 16.000 zones.

Safe network of control panels

CA3000 control panel is available in 2 different housings (medium plastic and large plastic) which can be chosen according to the type of the environment and the size of the system.
Moreover both the wall mounting and cabinet cabling in rack 19" are very easy to install.
All housings are available either with the user control panel integrated or in black box version. In this latter case the user control panel is installed remotely or can be one of another control panel into the network.
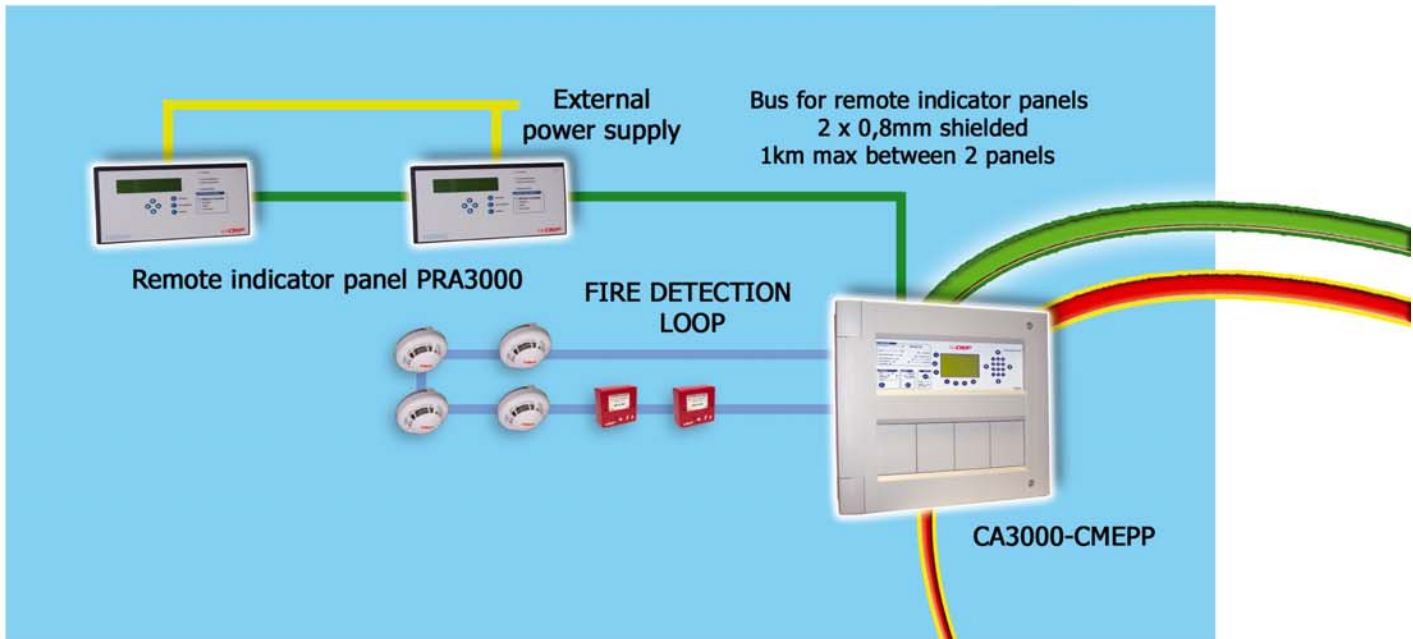
Several aesthetic solutions

The great novelty of the interactive management of the detectors' alarm thresholds ensure the perfect fit of the detection system (control panel and detectors) to the environmental requirements of the areas under surveillance.
The CA3000 control panel has various modalities of alarm handling among which the double knock alarm, the alarm with two thresholds and the alarm with verification time; all of them can be configured based on 4 weekly time cycles with integrated calendar so as to be able to take holydays into account.
Moreover, constant control of the pollution level of the optical camera of the detectors allows very simple and highly professional maintenance of the detection system.

Best detection performances to ensure total reliability
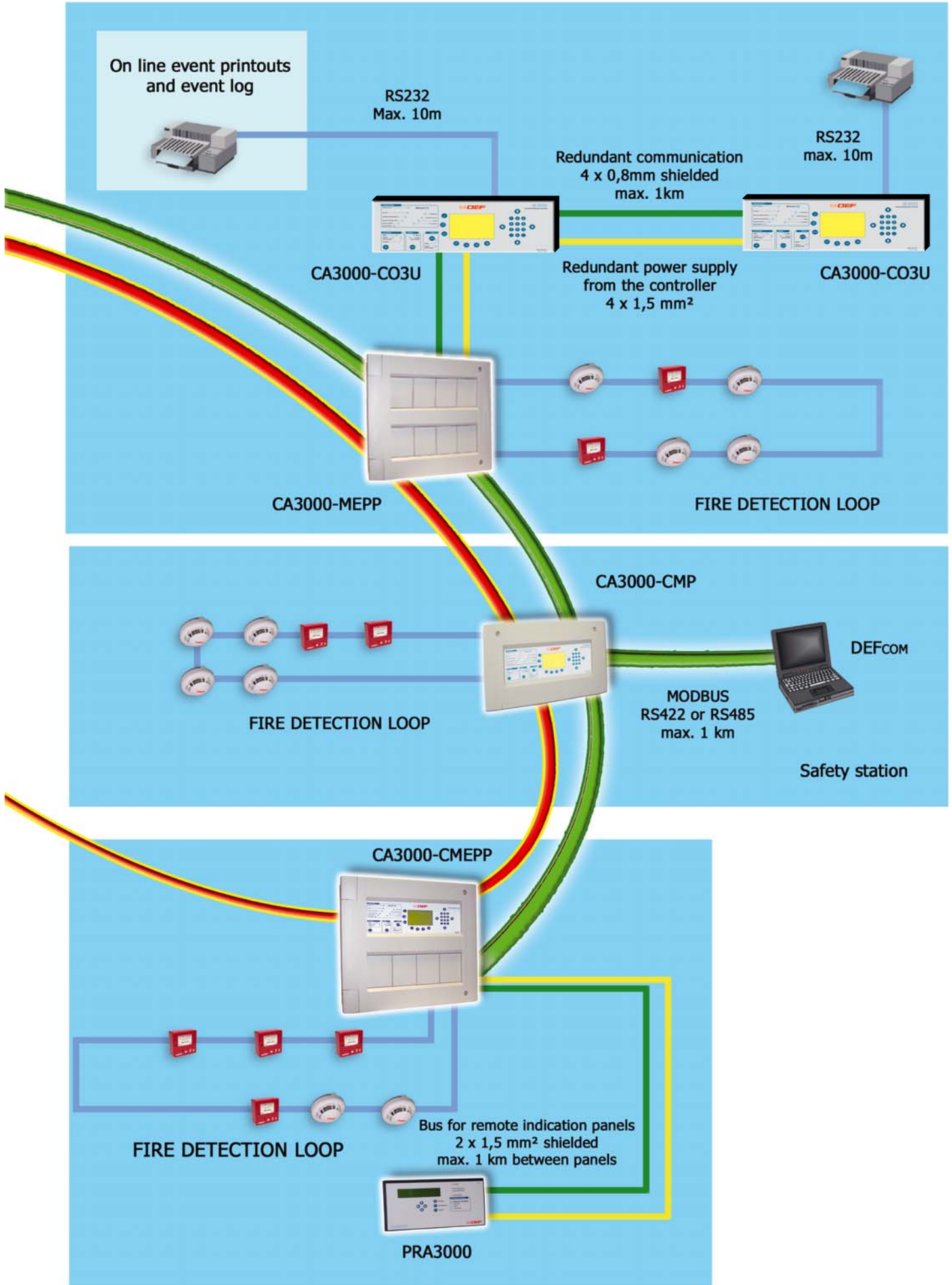
Synoptic general view

External
power supply

Bus for remote indicator panels
2 x 0,8mm shielded
1km max between 2 panels

Remote indicator panel PRA3000

FIRE DETECTION
LOOP

CA3000-CMEPP

Network MGNET
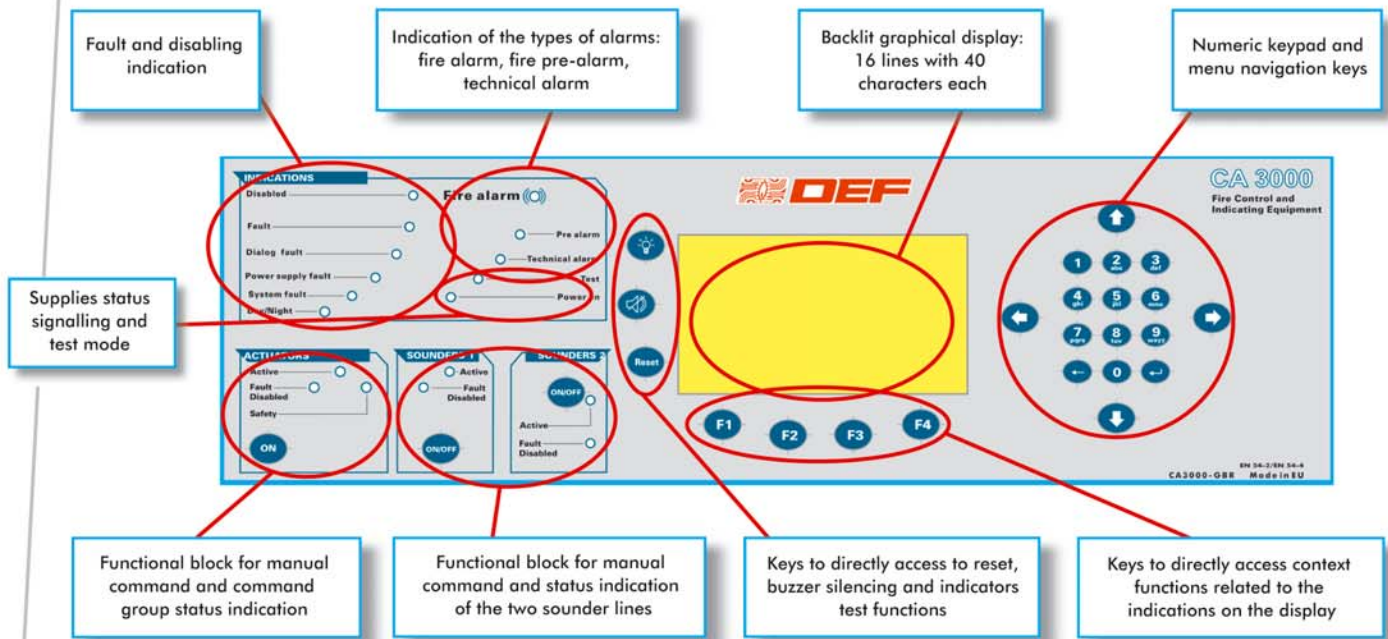Loop connection
2 x 0,8mm shielded
1km max between
2 control panels

Application

The CA3000 panel is able to handle the detection devices from the Orion and Vega range, either connected in loop or over open lines.

The management of the control panel can be performed from an user control panel integrated into the cabinet, a remotely located one or from an user control panel of networked panel.

On line event printouts and event log

RS232
Max. 10m

RS232
max. 10m

Redundant communication
4 x 0,8mm shielded
max. 1km

CA3000-CO3U

Redundant power supply
from the controller
4 x 1,5 mm²

CA3000-CO3U

CA3000-MEPP

FIRE DETECTION LOOP

CA3000-CMP

FIRE DETECTION LOOP

DEFcom

MODBUS
RS422 or RS485
max. 1 km

Safety station

CA3000-CMEPP

FIRE DETECTION LOOP

Bus for remote indication panels
2 x 1,5 mm² shielded
max. 1 km between panels

PRA3000

Operation

Fault and disabling indication

Indication of the types of alarms: fire alarm, fire pre-alarm, technical alarm

Backlit graphical display: 16 lines with 40 characters each

Numeric keypad and menu navigation keys

Supplies status signalling and test mode

Functional block for manual command and command group status indication

Functional block for manual command and status indication of the two sounder lines

Keys to directly access to reset, buzzer silencing and indicators test functions

Keys to directly access context functions related to the indications on the display

Composition

Item Code	Description	Composition
CA3000-NE	Interactive addressed analog control panel	Control panel in a plastic medium box equipped with the user control panel and able to handle 2 loops or 4 open lines (max. 400 addresses) not expandable and not network connected
CA3000-CMP	Interactive addressed analog control panel	Control panel in a plastic medium box equipped with the user control panel and able to handle 2 loops or 4 open lines (max. 400 addresses) expandable to 10 loops or 20 open lines (max. 1.600 addresses)
CA3000-MP	Interactive addressed analog control panel	Control panel in a plastic medium blind box fully equipped to handle 2 loops or 4 open lines (max. 400 addresses) expandable to 10 loops or 20 open lines (max. 1.600 addresses)
CA3000-CMEPP	Interactive addressed analog control panel	Control panel in a plastic big box equipped with the user control panel and able to handle 2 loops or 4 open lines (max. 400 addresses) expandable to 10 loops or 20 open lines (max. 1.600 addresses)
CA3000-MEPP	Interactive addressed analog control panel	Control panel in a big plastic blind big box equipped to handle 2 loops or 4 open lines (max. 400 adresses) expandable to 10 loops or 20 open lines (max. 1.600 addresses)
CA3000-CO3U	Remote user control panel	Remote user control panel for a remote station in a plastic housing equipped with keyboard and display with 16 lines and 40 characters
MG2B	Electronic board	Expansion board able to handle 2 loops or 4 open lines (max. 400 addresses)
MGNET	Electronic board	Board for connecting the CA3000 panels on the MGNET network
R12P2	Electronic board	Electronic board with 12 programmable relays
C20R-E	Electronic board	Electronic board with 20 programmable relays
MB2B	Electronic board	CPU board for the CA3000 panel
ALBA150	Modulo di alimentazione	24Vdc, 5A power supply module for the CA3000 panel
CA3000-FAV	Electronic board	Electronic board of the user control panel with keyboard and display

Technical specifications

General characteristics

Weight without batteries:	Medium plastic housing: 7Kg
	Large plastic housing: 9Kg
Dimensions:	Medium plastic housing: 610 x 350 x 175mm
	Large plastic housing: 610 x 525 x 175mm
Plastic housing material:	ABS 5V
Colour:	RAL 7035
Index of Protection:	IP30
Operating temperature:	from -10°C to +50°C
Operating relative humidity:	≤ 93% without condenses
Storage temperature:	from +10°C to +50°C
Storage relative humidity:	≤ 85% without condenses
Certification:	CE, CPD, EN 54-2, EN 54-4

Main electrical characteristics

Main power supply:	230Vac (-15%; +10%) / 50Hz o 60Hz
Secondary power supply:	2 sealed lead batteries 12V
	12Ah for the medium plastic housing
	18Ah for the large plastic housing
Auxiliary power supply of the controller:	Battery 9V
Output 24V:	500 mA protected and controlled against short circuits
Sounder line outputs:	24Vdc, 1A max splitted on 2 lines protected and monitored

Main functional characteristics

Number of zones:	1.000
Number of addresses:	1.600
Number of command groups:	400
Fire detection system:	10 loops or 20 open lines
Types of alarm handled:	Alarm, pre-alarm, technical alarm
Event Log:	1.000 events with timestamp
Fire alarm repetition:	Relay with changeover contact (30V, 1A)
General fault repetition:	Relay with changeover contact (30V, 1A)
Programmable inputs:	2 to monitor free contacts voltage
Optional programmable outputs:	Up to 52 relays (with R12P2 and C20R cards)
Number of serial outputs:	1 RS232 port for the printer
	1 RS232 port for PC programming
	1 RS485 port for remote indication panels
	1 RS422 port for MODBUS output

Network system characteristics

Number of networked panels in MGnet:	Up to 16 panels
Distance between panels:	1km (possible extension with optical fibre)
Connection of the MGnet network:	2 x 0,8mm shielded (possible extension with optical fibre)
Nature of the MGnet network:	Safety loop
Max. n. of zones in the MGnet network:	Up to 16.000
Max. n. of addresses in the MGnet network:	Up to 25.600

DEF

Solutions and services for fire safety systems