



Cerberus PRO – C-NET devices

Planning Tool

Answers for infrastructure.

SIEMENS

Panel overview

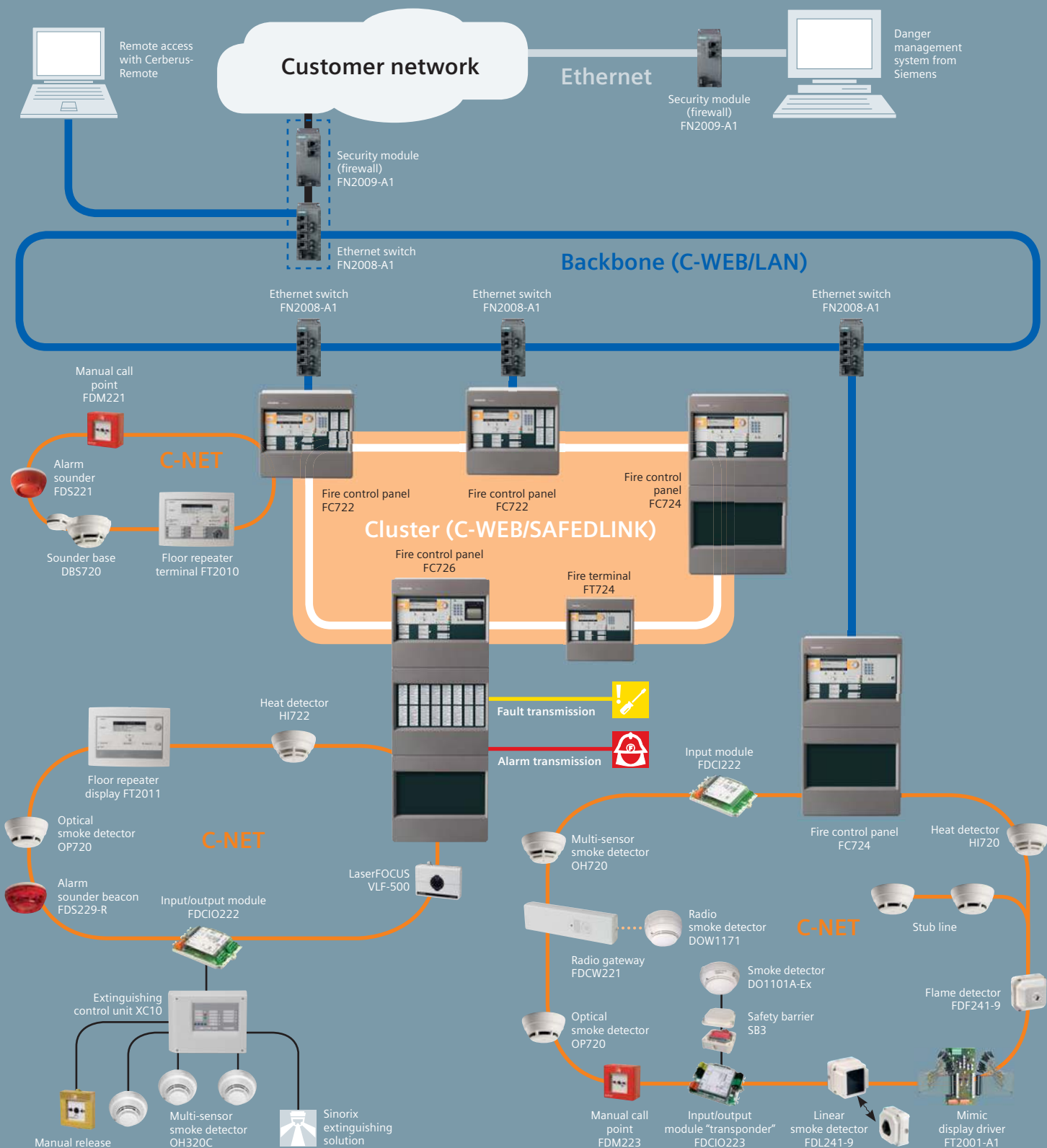
	FC721-ZZI-YZ	FC722-ZZI-YZ	FC722-ZAI-ZE	FC724-ZAI-ZE	FC726-ZA	FT724-ZZ
						
	Housing Eco	Housing Standard	Housing Comfort	Housing Comfort	Housing Large	Housing Eco
Mains voltage	AC 85... 265 V	AC 85... 265 V	AC 230 V	AC 230 V	AC 230 V	–
Power supply	70 W	70 W	150 W	150 W	150 W	option PSU 70 W
Operating voltage	DC 21... 28.6 V	DC 21... 28.6 V	DC 21... 28.4 V	DC 21... 28.4 V	DC 21... 28.4 V	DC 21... 28.4 V
Operating current	max. 2.5 A	max. 2.5 A	max. 5 A	max. 5 A	max. 5 A	125 mA
Battery capacity	2x12 V, 7 Ah	2x12 V, 7... 12 Ah	2x12 V, 26 Ah	2x12 V, 26 Ah	2x12 V, 45 Ah	option 2x12 V, 7 Ah
Emergency power supply	up to 72 h ¹⁾	up to 72 h ¹⁾	up to 72 h	up to 72 h	up to 72 h	up to 72 h
Connectable detector series	Cerberus PRO FD720 (C-NET)	Cerberus PRO FD720 (C-NET)	Cerberus PRO FD720 (C-NET)	Cerberus PRO FD720 (C-NET)	Cerberus PRO FD720 (C-NET)	–
Number of lines						
– Loops (with loop extension)	1	2 (4)	2 (4)	4 (8)	4 (8)	–
– Stub lines	2	4 (8)	4 (8)	8 (16)	8 (16)	–
– C-NET (4 per line card)	–	–	–	–	max. 20	–
Number of addresses	max.126	max. 252	max. 252	max. 504	max. 1,512	–
Networkable	–	✓	✓	✓	✓	✓
Integrated inputs/outputs						
– Relay outputs						
• RT alarm	1	1	1	1	1	–
• RT fault	1	1	1	1	1	–
– Monitored outputs						
• Alarm	1	1	1	1	1	–
• Fault	1	1	1	1	1	–
• Horn	1	1	1	2	2	–
– Freely programmable inputs/outputs	4	8	8	12	12	–
Operating unit	integrated	integrated	integrated	integrated	integrated	integrated
Display groups integrated, each with one red & yellow LED	–/up to 24	–/up to 24	–/up to 48	–/up to 48	–	–
Display groups optional, each with one red & yellow LED	Up to 96 ²⁾ /–	Up to 96 ²⁾ /–	Up to 96/up to 96	Up to 96/up to 96	Up to 96	Up to 96 ²⁾
Plug-in position for RS232, RS485 serial ports	1	2	2	2	2	2
Ethernet connection RJ45	1	1	1	1	1	1
Dimensions (WxHxD)	430x398x80 mm	430x398x160 mm	430x796x160 mm	430x796x160 mm	430x796x260 mm	430x398x80 mm
Approvals						
– CPD	0786-CPD-20767	0786-CPD-20721	0786-CPD-20721	0786-CPD-20722	pending	...
– VdS	–	G209076	G209076	G209077	pending	G209078
– LPCB	pending	pending	pending	pending	pending	pending

¹⁾ with additional housing and power supply

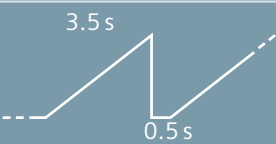
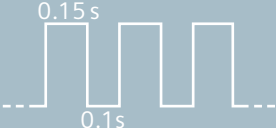
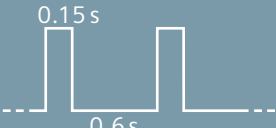
²⁾ with extra housing

Cerberus PRO – enjoy protecting

Powerful control panels, clever fire detectors, and smart peripheral devices. This is what our comprehensive Cerberus® PRO family offers. The brief overview below demonstrates the most important system components.



Alarm sounder tones

No.	Tonality	Frequency pattern Sweep from – to	Pulse pattern	Adjustable FDS221 and FDS229 sound intensity level (typ. values in [dBA/1m]*)		Norm
				at 12 V	at 32 V	
1	Continuous	970 Hz		98 88 81	101 92 82	"evacuate" BS 5839 Part 1 1988
2	Intermittent	950 Hz		96 87 79	100 91 81	"alert" BS 5839 Part 1 1988
3	Sweep-down	1200 Hz – 500 Hz		96 87 79	100 91 80	DIN-Tone DIN33404 Part 3
4	Slow-whoop Sweep-up, linear	500 Hz – 1200 Hz		97 88 81	101 92 82	NEN2575 (Netherlands)
5	Pulse tone	500 Hz		94 85 75	97 88 75	Swedish Standard SS 03 17 11, No. 1 "Imminent Danger"
6	Intermittent	500 Hz		93 84 75	96 87 75	Swedish Standard SS 03 17 11, No. 6 "Local Warning"
7	Continuous	500 Hz		94 85 76	97 88 76	Swedish Standard SS 03 17 11, No. 4 "All clear"
8	Alternating	560 Hz 440 Hz		94 85 75	98 89 76	"French fire sound" NF S 32-001-1975
9	Intermittent	420 Hz		94 85 76	98 89 77	Australia "Alert" AS 2220 -1978
10	Slow-whoop Sweep-up, linear	500 Hz – 1200 Hz		96 89 81	100 93 82	Australia "Action" AS 2220 -1978
11	Intermittent	970 Hz		99 89 82	102 92 83	ISO 8201 US Temporal Tone LF

* Sound intensity ± 2 dBA
Sound intensity depending on the angle, see 'Operating instruction 008109'

Point detectors overview

Multi-sensor smoke detector	Optical smoke detector	Heat detectors
		
OH720 Detects all types of fires early, whether they generate light, dark, or no smoke at all. – The optoelectronic sampling chamber keeps out extraneous light, resulting in reliable detection of both dark and light smoke particles – A thermal sensor enables fire detection in cases where no smoke has been generated – Combination of optical and thermal sensors optimizes detection reliability – Offers two parameter sets • Robust – for areas with deceptive phenomena • Sensitive – for areas with few misleading sources	OP720 Detects slow burning fires that generate smoke. – The optoelectronic sampling chamber keeps out extraneous light, resulting in reliable detection of smoke particles – It has a sensor for optical forward scattering – Smoke particles are optimally recognized – Offers two parameter sets • Standard – for standard applications such as living rooms or offices • Sensitive – for areas with few misleading sources requiring fast detection	HI720 & HI722 Respond when temperature exceeds a preset threshold value. In addition, the HI720 also responds if temperature increases rapidly. – Thermal sensor measures both ambient temperature as well as the temperature in the detector housing – HI720 offers two parameter sets • A2S – detects if threshold value has been exceeded • A2R – detects rapid increase in temperature – HI722 offers one parameter set: A2S

Special detectors overview

Aspirating smoke detection	Linear smoke detector	Radio fire detection
		
LaserFOCUS VLF-250/VLF-500 – Addressable – Easily mountable on any duct with a diameter of up to 280 cm – Air samples are continuously taken at danger spots and carried to ASD device – For highly ventilated rooms or in case of smoke dilution due to high air speed (e.g. ISO class 1 – 6 rooms)	FDL241-9 – Addressable or collective – Distance metering unit ensures detection of barriers interrupting light beam – Flexible monitoring distance 5 – 100 m – For areas with limited access or large, high-ceilinged buildings	FDCW221/DOW1171/DBW1171/DOW1171 – Addressable – High-quality optoelectronic sensor system – Dynamic analysis of sensor signaling within detector – Can be combined with wired detectors in one system – Used for applications where only restricted use of cable or conduit is permitted

Special detectors overview

Ex detectors		
		
DT1101A-Ex – Collective – For explosion-hazard area of zones 1 and 2 where rapid increase in temperature can be expected – Measures ambient temperature with one NTC thermistor and detector housing temperature with another NTC thermistor	DO1101A-Ex – Collective – For early warning of smoke-forming flaming fires and smoldering fires in explosion-hazard area of zones 1 and 2 – High performance optoelectronic sensor system – Penetrating smoke scatters light of infrared beam in detector	DF1101-Ex – Collective – Suitable for detecting smokeless liquid and gas fires as well as smoke-generating open fires of carbon-based materials – One sensor measures hot carbon dioxide, two sensors simultaneously measure interference radiation
Flame detectors		
		
FDF241-9 – Addressable or collective – For most demanding applications – Suitable for detecting smokeless liquid and gas fires as well as smoke-generating open fires of carbon-based materials – One sensor measures hot carbon dioxide, two sensors simultaneously measure interference radiation	FDF221-9 – Addressable or collective – For inside applications – One infrared sensor with detection algorithms – Used for simple applications – Detection of smokeless combustible liquid and gas fires as well as smoke-forming open fire involving carbonaceous materials	

Peripheral devices overview

Floor repeater terminal	Floor repeater display	Manual call points
		
FT2010 – Gives quick overview at floor level – Displays relevant information in plain text on a backlit display (8 lines of 40 characters each) – Alarm display with red LED – Accessible via password or optional key switch – Offers same main operating functions as control panel	FT2011 – Gives quick overview at floor level – Displays relevant information in plain text on a backlit display (8 lines of 40 characters each) – Alarm display with red LED	FDM221 – Standard MCP – For surface- and recess-mounted feed lines – Direct alarm actuation by pushing in glass plate

Peripheral devices overview

Manual call points



FDM223/FDM223H

- **FDM223:** Double-action MCP, VdS-conform, IP44 or IP64
- Suited for humid and dusty areas
- For surface- and recess-mounted feed lines
- **FDM223H:** Heavy-duty MCP, IP64
- Extremely robust housing
- Suited for humid and dusty areas
- For surface-mounted feed lines



FDM224/FDM224H

- **FDM224:** Suited for humid and dusty areas
- For surface- and recess-mounted feed lines
- **FDM224H:** Heavy-duty MCP, IP64
- Extremely robust housing
- Suited for humid and dusty areas
- For surface-mounted feed lines



FDM225

- Resettable MCP
- For indoor and outdoor application
- For surface- and recess-mounted feed lines
- With break glass or resettable plastic element
- Can be used for flush mounting



FDM226

- Resettable MCP, IP66
- For surface-mounted feed lines
- With break glass or resettable plastic element
- For indoor and outdoor applications

I/O modules



FDCI221

- For the connection of 1 circuit of potential-free make-or-break contact to indicate technical states (e.g. door or ventilation control) or for alarm actuation (e.g. sprinkler alarm)
- Status indication by LED
- 1 input



FDCI222

- For the connection of 4 independent, potential-free make-or-break contacts for message of technical states (e.g. door or ventilation control) or alarm actuation (e.g. sprinkler alarm)
- Status indication by LED
- 4 inputs



FDCIO221

- For the connection of 1 circuit of potential-free make-or-break contacts to allow indication of technical states (e.g. door or ventilation control) or alarm actuation (e.g. sprinkler alarm)
- For decentralized control of fire doors, ventilation, air conditioning, etc. Can be clean contact or by monitored circuit.
- Status indication by LED
- 1 input/1 output



FDCIO222

- For the connection of 4 independent, potential-free make-or-break contacts for message of technical states (e.g. door or ventilation control) or alarm actuation (e.g. sprinkler alarm)
- For decentralized control of fire doors, ventilation, air conditioning, etc.
- Status indication by LED
- 4 inputs/4 outputs

I/O modules



FDCIO223

- 2 selectable monitored inputs for connection of collective fire detectors
- For monitored controls of e.g. smoke dampers, alarm devices, door magnets, and extinguishing activation devices (adhere to country-specific instructions)
- Requires DC 24 V external PSU
- Status indication by LED

Sounders



FDS221

- For acoustic alarm signaling of up to 99 dBA
- Different volume and tone possible for preliminary and main alarm
- 11 different tones can be set (including "evacuation" according to DIN 33404-3)
- Only applicable with addressable detector base



FDS229

- For acoustic and optic alarm signaling
- 11 different tones can be set
- Acoustic alarm signaling of up to 99 dBA
- Light intensity up to 3.2 cd
- Has a fixed flashing sequence, flash mode adjustable



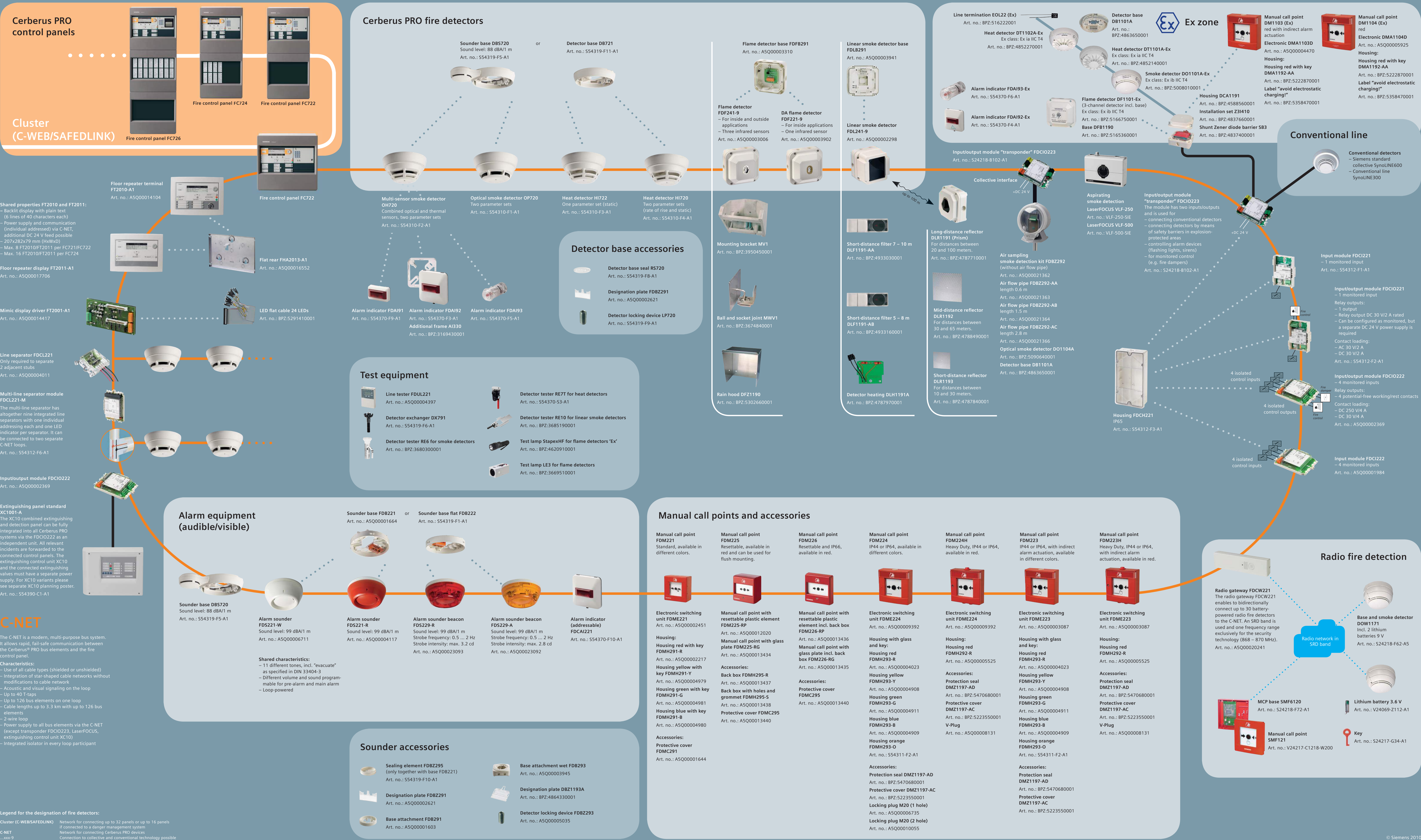
DBS720

- Detection and acoustic alarm signaling in one
- Independent of alarm signal from its associated detector
- Max. volume 88 dBA
- 11 selectable tones
- Compatible with all point detectors of Cerberus PRO

Cerberus PRO Planning Tool – C-NET devices

Answers for infrastructure.

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Answers for infrastructure.

■ Megatrends driving the future

The megatrends – demographic change, urbanization, climate change, and globalization – are shaping the world today. These have an unprecedented impact on our lives and on vital sectors of our economy.

■ Innovative technologies to answer the associated toughest questions

Throughout a 160-year history of proven research and engineering talent, with more than 50,000 active patents, Siemens has continuously provided its customers with innovations in the areas of healthcare, energy, industry, and infrastructure – globally and locally.

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Building Technologies offers intelligent integrated solutions for industry, commercial and residential buildings, and public infrastructure. Over the entire facility's life cycle, our comprehensive and environmentally conscious portfolio of products, systems, solutions, and services for low-voltage power distribution and electrical installation technology, building automation, fire safety and security ensures the:

- optimum comfort and highest energy efficiency in buildings,
- safety and security for people, processes, and assets,
- increased business productivity.



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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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