

Sigma XT+ series

Item numbers covered by this datasheet

560208-100	SigmaXT+ 8 zone-2 area DK FE
560308-100	SigmaXT+ 8 zone-3 area DK FE
560408-100	SigmaXT+ 8 zone-4 area DK FE
560308-101	SigmaXT+ 8 zone-3 area DK(N) FE
560408-101	SigmaXT+ 8 zone-4 area DK(N) FE
560308-103	SigmaXT+ 8 zone-3 area UK FE
560408-103	SigmaXT+ 8 zone-4 area UK FE

General

Sigma XT+ control panels are multi-area extinguishant control panels complying with EN12094-1.

Up to 8 zones of conventional detection with up to 4 extinguishant areas are available.

Stand alone extinguishant control units are also available with 2 monitored inputs to receive initiating signals from remote fire detection control panels or addressable modules. Each extinguishant area has a comprehensive set of inputs and outputs and is configurable via a simple programming interface. All extinguishant areas may have up to 7, serially connected Sigma Si status indication and control units or ancillary relay boards connected via a simple 4 core cable.

Special features for each country are described in the appendix.



Features

- Complies with EN12094-1, EN54-2, EN54-4.
- BSI EC- certificate no. 0086-CPR-96748 / 0086-CPD-96748.
- Up to 8 detection zones. Any combination of zones can be configured to release.
- 1 to 4 extinguishant areas.
- Dual extinguishant outputs for each area (configurable as Main or Reserve).
- *Mode select, Manual release, Hold, Low pressure, Released pressure* inputs per area.
- *First, Second, Released, Fault* relays per area.
- *Common Alarm, Fire, Fault* relays.
- All *inputs* monitored, *Sounders, Extinguishants* outputs monitored.
- Configurable extinguishant release time delays (0-60 secs) and release duration (1-5 minutes).
- Countdown timer shows time remaining until release.
- Supports up to 7 status indicators and up to 7 ancillary boards.
- Extract fan control.

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Technical specifications

Size/Weight (incl. battery)	385 X 700 X 145 mm/5 kg
Construction	1.2mm mild sheet steel
IP Rating	IP30
Finish	Epoxy powder coated
Colour - lid & box	BS 00 A 05 grey - fine texture
Colour - controls plate & labels	RAL 7047 light grey - satin
Mains supply	230V AC, 50Hz +10% - 15% (100 Watts maximum)
Mains supply fuse	1.6 Amp (F1.6A L250V)
Power supply rating (1 & 2 area units)	3 Amps total including battery charge 28V +/- 2V
Power supply rating (3 & 4 area units)	5.25 Amps including battery charge 28V +/- 2V
Maximum ripple current	200mV
Battery charge voltage	27.6VDC nominal (temperature compensated)
Battery charge current	0.7A max.
Battery fuse	20mm, 3.15 glass
Current draw in mains fail condition	54mA per module
Max. current draw from batteries	4A
Sigma XT+ module Aux 24V output	Fused at 500mA with electronic fuse - 1 per extinguishant area
Sigma CP Aux 24V output	Fused at 2.5A - not available to user
1st and 2nd stage Sounder outputs	21 to 28V DC Fused at 1A with electronic fuse
Fault relay contact rating	5 to 30VDC 1A Amp maximum for each
Fire relay contact rating	5 to 30VDC 1A Amp maximum for each
Local fire relay contact rating	5 to 30VDC 1A Amp maximum for each
First stage contact rating	5 to 30VDC 1A Amp maximum for each
Second stage contact rating	5 to 30VDC 1A Amp maximum for each
Extract contact rating	5 to 30VDC 1A Amp maximum for each
Zone quiescent current	0mA minimum, 2mA maximum
Terminal capacity	0.5mm ² to 2.5mm ² solid or stranded wire
Number of detectors per zone	Dependent on type - typically 20
Number of sounders per circuit	Dependent on type and current consumption - typically 20+
Detection circuit end of line	5K6 +/- 5% ½ Watt resistor
Monitored input end of line	5K6 +/- 5% ½ Watt resistor
Sounder circuit end of line	10k +/- 5% ½ Watt resistor
Extinguishant output end of line	1N4004 Diode
No. of detection circuits	Two to eight. 21 to 28V DC
No. of sounder circuits	Dependent on model 21 to 28V DC
Extinguishant release output	21 to 28V DC. Fused at 1 Amp
Extinguishant release delay	Adjustable 0 to 60 seconds (+/- 10%)
Extinguishant release duration	Adjustable 60 to 300 seconds
SIL, AL, FLT, RST inputs	Switched -ve, min resistance 0 ohms, max resistance 100 Ohms
Zone normal threshold (Allowable EOL)	10K ohm to 2K ohm
Detector alarm threshold	1K ohms to 390 ohms
Call point alarm threshold	370 ohms to 150 ohms
Short circuit threshold	130 ohms to 0 ohms
Head removal condition	15.5 to 17.5 volts
Cabling	FP200 or equivalent (max capacitance 1uF max inductance 1 mH)
Monitored inputs normal threshold (Allowable EOL)	10K ohm to 2K ohm
Monitored inputs alarm threshold	2K ohms to 150 ohms +/- 5%
Monitored inputs Short circuit threshold	140 ohms to 0 ohms +/- 5%
Status unit/Ancillary board connection	Two wire RS485 connection (EIA-485 specification)
Status unit power output	21 to 28V DC. Fused at 500mA with electronic fuse

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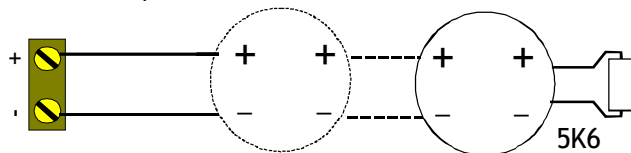
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Installation

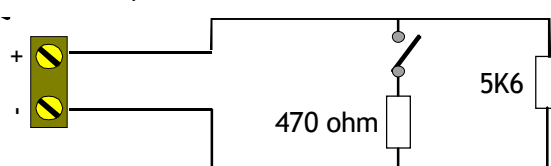
The figures show the normal installations.

For further details, see the 'Operation and Maintenance Manual' which is delivered with the control panel.

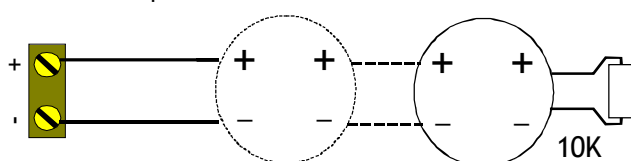
Detector input



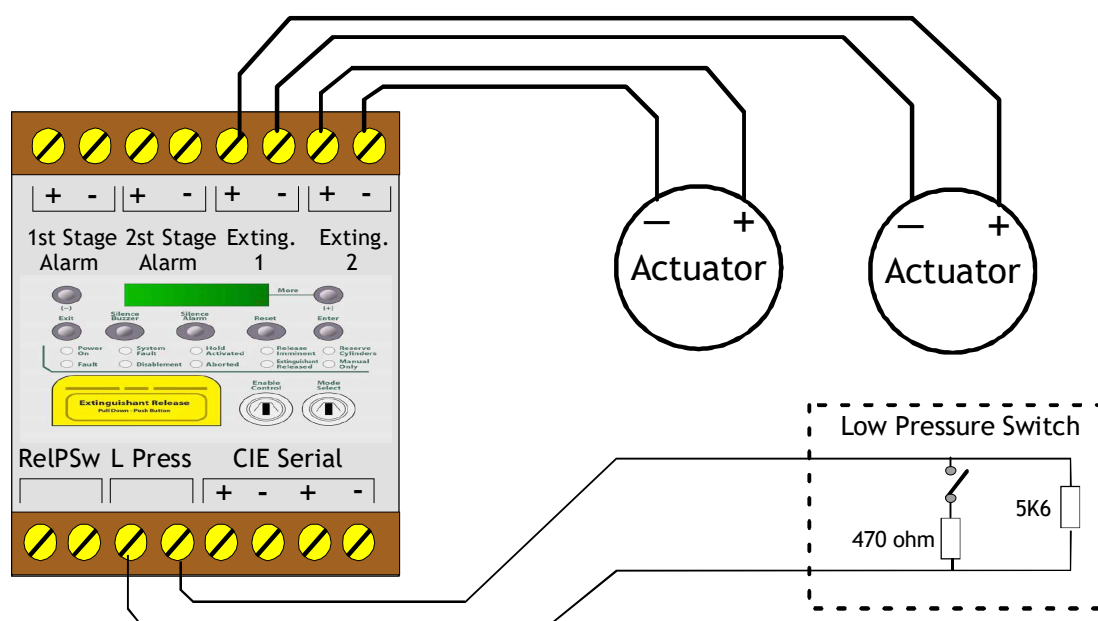
Monitored input



Sounder output



Extinguishing system



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Calibration of extinguishant output

The extinguishant output must be calibrated after the cable and the actuator are connected.

- Switch on the enable control key switch at the detector panel (Access level 2).
- Slide the 'write enable' switch to the left at the extinguishing module (Access level 3).
- Press the 'Enter' button on the extinguishing module and then press the 'DOWN' button several times, until the display shows:

Exting. O/P 1

Level = XXX

Press the 'Enter' button and the display will show the new value (YYY).

Exting. O/P 1

The YYY is the new monitored value.

Level = YYY ?

To save this setting, press the 'Enter' button.

Repeat the same for EXTING. O/P 2, press the 'DOWN' button for setting the actuator 2.

Return to normal (Access level 1) by sliding the 'write enable' switch to the right, and turn back the enable control key switch.

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FIRE EATER 1/2

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Appendix: Compatible detectors

Model	Type	Manufac-turer	Max Numb.
SLR-E/SLR-E3	OPT	Hochiki	32
SIJ-E/	ION	Hochiki	32
DCD-1E/DCD-AE3	HEAT	Hochiki	32
DCD-2E	HEAT	Hochiki	32
DCD-1RE/DCD-CE3	HEAT	Hochiki	32
DFG-60E	HEAT	Hochiki	32
DFJ-60E/DFJAE3	HEAT	Hochiki	32
DFJ90-E/DFJCE3	HEAT	Hochiki	32
SPB-ET	BEAM	Hochiki	32
SRA-ET	BEAM	Hochiki	32
55000-200/210 -S60	ION	Apollo	32
55000-300 - serie 60	OPT	Apollo	32
55000-100 - serie 60	HEAT	Apollo	32
55000-101 - serie 60	HEAT	Apollo	32
55000-102 - serie 60	HEAT	Apollo	32
55000-103 - serie 60	HEAT	Apollo	32
55000-104 - serie 60	HEAT	Apollo	32
55000-215 - serie 65	ION	Apollo	32
55000-216 - serie 65	ION	Apollo	32
55000-217 - serie 65	ION	Apollo	32
55000-218 - serie 65	ION	Apollo	32
55000-219 - serie 65	ION	Apollo	32
55000-220 - serie 65	ION	Apollo	32
55000-315 - serie 65	OPT	Apollo	32
55000-316 - serie 65	OPT	Apollo	32
55000-317 - serie 65	OPT	Apollo	32
55000-120 - serie 65	HEAT	Apollo	32
55000-121 - serie 65	HEAT	Apollo	32
55000-122 - serie 65	HEAT	Apollo	32
53541-151 - serie 30	ION	Apollo	32
53541-152 - serie 30	ION	Apollo	32
53541-101 - serie 30	OPT	Apollo	32

Model	Type	Manufac-turer	Max Numb.
53541-221 - serie 30	HEAT	Apollo	28
53541-211 - serie 30	HEAT	Apollo	28
53541-212 - serie 30	HEAT	Apollo	28
53541-213 - serie 30	HEAT	Apollo	28
53541-214 - serie 30	HEAT	Apollo	28
ORB-OP-12001-APO	OPT	Apollo	15
ORB-OH-13001-APO	Multi	Apollo	15
ORB-HT-11001-APO	A1R Heat	Apollo	15
ORB-HT-11002-APO	A2S Heat	Apollo	15
ORB-HT-11003-APO	BR Heat	Apollo	15
ORB-HT-11004-APO	BS Heat	Apollo	15
ORB-HT-11005-APO	CR Heat	Apollo	15
ORB-HT-11006-APO	CS Heat	Apollo	15
NID-58	ION	Nittan	32
2KC/2KD	OPT	Nittan	32
2SA-LS/2SA-70T-LS	HEAT	Nittan	32
TCA-70-LS	HEAT	Nittan	32
NFD-18-2/NFD-18-5	Flame	Nittan	3
NID-48F	ION	Nittan	32
NS-12-7	HEAT	Nittan	32
NC-9C-70T	HEAT	Nittan	32
ECO1002	Heat-Opt	System Sensor	21
ECO1003	OPT	System Sensor	26
ECO1005	HEAT	System Sensor	22
ECO1005T	HEAT	System Sensor	22

Appendix: Compatible Sounders

Model	Type	Manufac-turer	Com-ments
BANSHEE	Electronic	Vimpex	
Wafer	Electronic	Vimpex	
Firecryer Range	Electronic	Vimpex	Voice
Kobell	Motor	Vimpex	
Askari	Electronic	Fulleon	

Model	Type	Manufac.	Com.
Askari	Electronic	Fulleon	
Roshni	Electronic	Fulleon	
Squashni	Electronic	Fulleon	
Symphoni	Electronic	Fulleon	
Electronic Bell	Electronic	Fulleon	
CFB Bells	Motor	Fulleon	
B6 and B8 Bells	Solenoid	Fulleon	

Appendix: Compatible detector bases and call point

Model	Type	Manufac-turer	Note
YBN-R/6	Standard, Remote LED	Hochiki	
YBO-R/4(IS)	----	Hochiki	
YBN-R/6SK	Diode base	Hochiki	*
YBO-R/6R	Latch relay	Hochiki	
YBO-R/6RS	NoLacth Relay	Hochiki	*
ECO1000R	Standard	SystemSensor	
ECO1000BRSD	Diode base	SystemSensor	*
456821-200	Standard	Apollo	
456821-201	Diode base	Apollo	*

Model	Type	Manufac.	Not
ORB-MB-00001-APO	Timesaver base	Apollo	
ORB-DB-00003-APO	Timesaver diode base	Apollo	
ORB-RB-10004-APO	Timesaver relay base	Apollo	
MCP1	Call point	KAC	
CX	Call point	Fulleon	
NCP-T	Call point	Nittan	
	Elec. Free bases	All	
*Must be used with LCMU			

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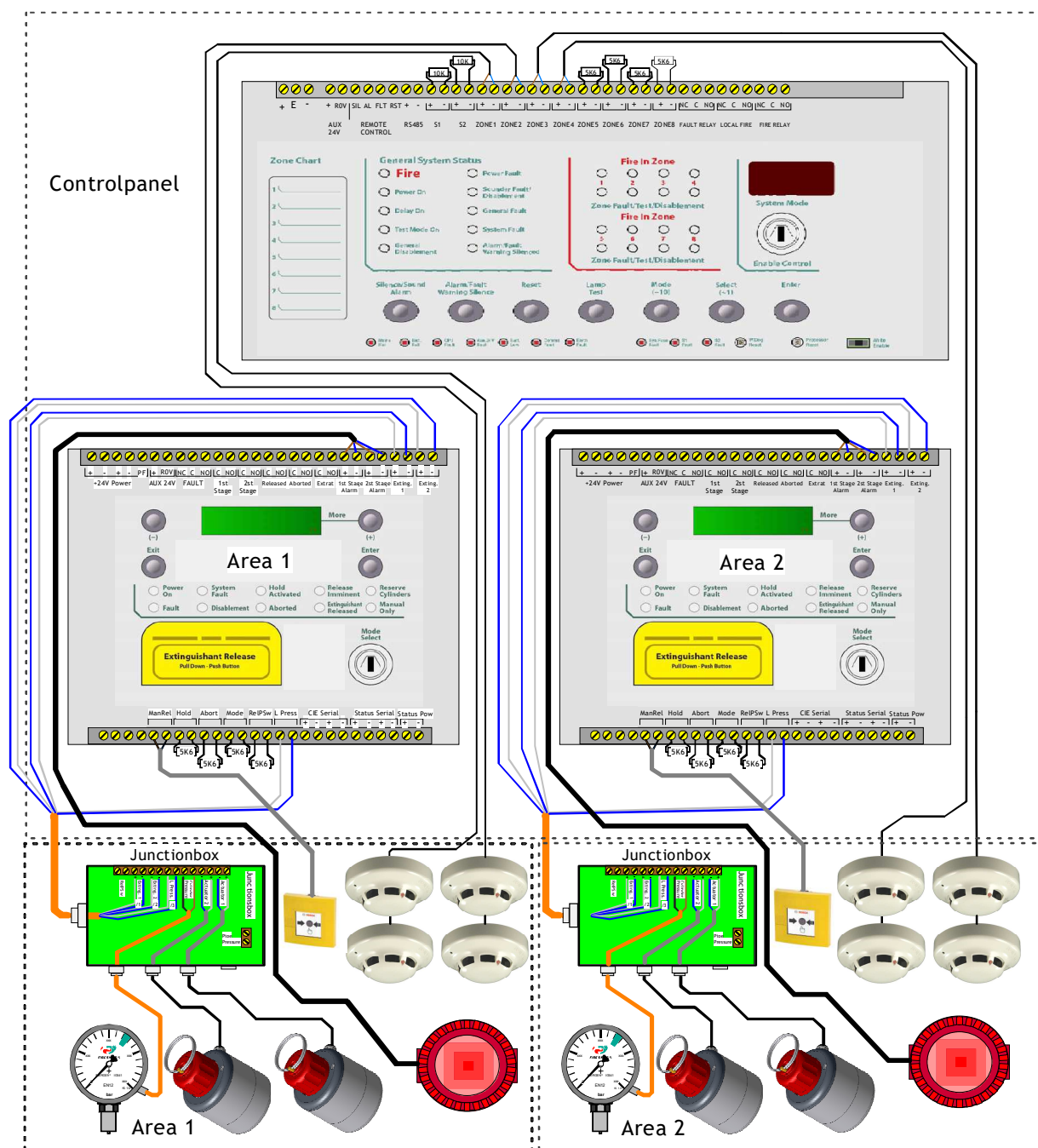
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Appendix: Sigma XT+ UK and (N)**Connections overview for SigmaXT+ UK and (N)**

The drawing is only for two areas, but the connection will be the same for 3 and 4 areas, except that the detectors are connected to Zone 5-6 and Zone 7-8.



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Appendix: Sigma XT+ DK (Denmark)

Complies with DBI 253, certificate no. 253.103

The control panel for Denmark is supplied with a special feature making it possible to disable the sound from the alarm points (tableaux) at fire but still keep the light on.

The table below shows the detectors that are approved by DBI to be used with the control panel.

Table 1 - DBI system approved detectors

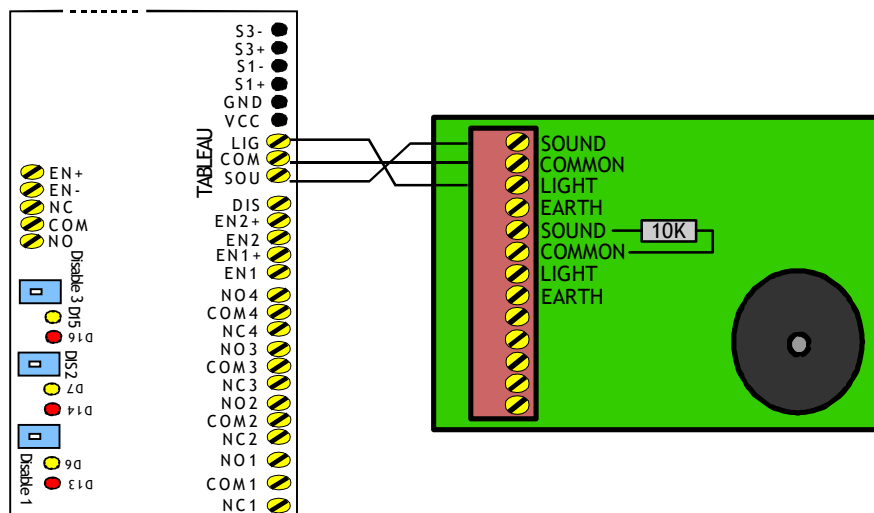
Model	Type	Manufacturer	Max. number per zone
ECO1002	Heat/Optical	System Sensor	6
ECO1003	Optical	System Sensor	13
ECO1005	Heat	System Sensor	13
ORB-OP-12001-APO	Optical	Apollo	15
ORB-OHT11001 A1R	Heat	Apollo	15
SLR-E3N	Optical	Hochiki	32
DCD-CE3	Heat	Hochiki	32
IFD-E(Exd)	Flame	Hochiki	3

Table 2 - Compatible detector bases and call points

Model	Type	Manufacturer
ECO1000DB	Base	System Sensor
ORB-MB-00001-APO	Base	Apollo
YBN-R/6	Base	Hochiki
MUS1A-R330SG-01	Call point EN54(Pictogram)	KAC
WR4072-470	Manual Call point EN54 IP67 (Pictogram)	KAC
MCP1A-Y330SG	Manual Call point EN54 (Pictogram)	KAC
WY4072-330	Manual Call point EN54 IP67 (Pictogram)	KAC
FMC-120-DKM-G-Y	Manual Call point Pictogram	BOSH
K91000M10-DK	Abort/Hold	Kentec

Connection from tableau interface to tableau, only for Denmark

The EOL-resistor must only be connected to the last tableau.



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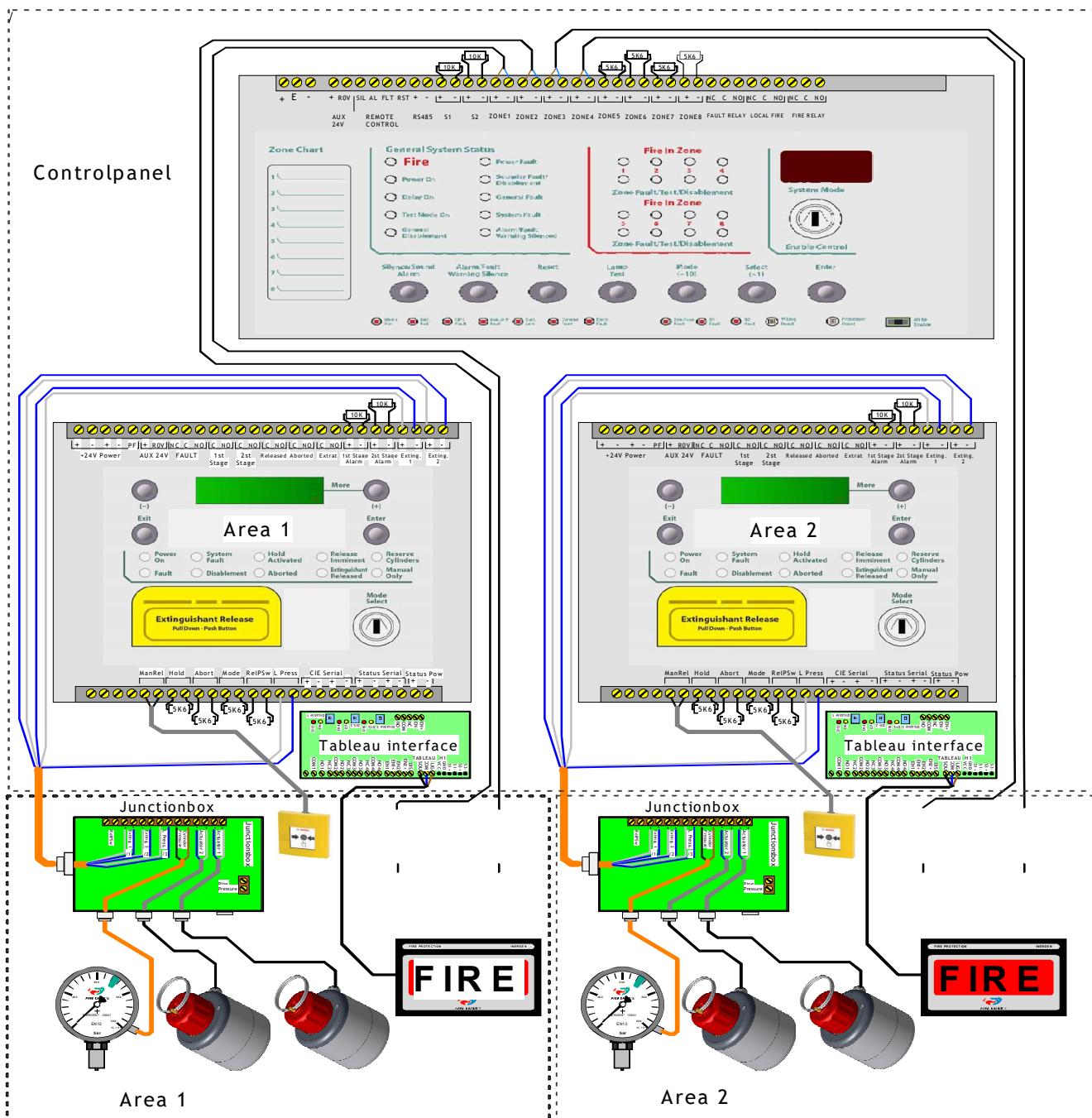
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Appendix: Sigma XT+ DK (Denmark)**Connections overview for SigmaXT+ DK**

The drawing is only for two areas, but the connection will be the same for 3 and 4 areas, except that the detectors are connected to Zone 5-6 and Zone 7-8.



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