DS50.07.2013

Sigma XT+

Multi-Area Extinguishant Control Panels

BS-EN12094-1
KM 96761

Features

- Approved to EN12094-1, EN54-2 and EN54-4
- 2, 4 or 8 detection zones
- 1 to 4 extinguishant areas
- Dual extinguishant outputs for each area (configurable as Main/Reserve)
- First and second stage sounder outputs for each area
- First and second stage volt free changeover contacts for each area
- Released volt free contact per area
- Fault volt free contact per area
- Programmable extinguishant delays
- Programmable output duration
- Extract fan control
- Countdown indicator shows time until release in seconds
- Mode select and manual release controls per area
- Monitored remote manual release input
- Monitored remote Hold input
- Monitored remote Mode select (door interlock) input
- Monitored remote Released pressure switch input
- Monitored remote Low Pressure switch input
- Monitored Abort input
- Serial connection for Sigma Si status units and ancillary boards. (K588)

Product Overview

- Sigma XT+ control panels are multi-area extinguishant control panels complying with EN12094-1, EN54-2 and EN54-4.
  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.

- The versatility of the control panel can be enhanced further by the fitting of up to 7 Sigma CP Ancillary boards (K580) or Sigma CP Sounder boards (K461) to the RS485 serial bus. See data sheet DS39 and DS48.

- For compatible status units see Sigma Si data sheet DS41.

Model No. K21082M3

Sigma XT Ancillary Board - K588

Sigma CP Ancillary Board - K580

Sigma CP Sounder Board - K461

Panels

Product Code	Zones	Areas	Size (mm)
K21021M3	2	1	385 x 520 x 110
K21041M3	4	1	385 x 520 x 110
K21042M3	4	2	385 x 520 x 110
K21081M3	8	1	385 x 520 x 110
K21082M3	8	2	385 x 520 x 110
K21083M4	8	3	385 x 700 x 145
K21084M4	8	4	385 x 700 x 145

Technical

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
Weight	-	8kg (standard panel)
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	-	200 millivolts
Battery charge voltage	-	27.6VDC nominal (temperature compensated)
Battery charge current	-	0.7A maximum
Battery fuse	-	20mm, 3.15A glass
Current draw in mains fail condition	-	54 milliamps per module
Max. current draw from batteries	-	3A (K21021, K21041, K21042, K21081, K21082) 4A (K21083, K21084)
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	-	0.5mm2 to 2.5mm2 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	-	6K8 +/- 5% ½ Watt resistor
Monitored input end of line	-	6K8 +/- 5% ½ Watt resistor
Sounder circuit end of line	-	10K +/- 5% ¼ 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