Kentec Electronics Ltd.

BS EN54-2 : 1998
BS EN54-4 : 1998
KM 73505

An introduction to.....

Syncro
AS

TESTED & CERTIFIED
TO BS EN54-2/4*
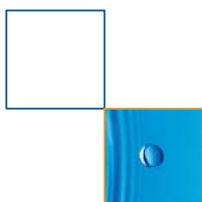
Syncro AS Overview

The Syncro AS is the latest powerful and versatile Single or two Loop Analogue Addressable Fire Control Panel from Kentec Electronics Limited. If desired, one loop versions of Syncro AS can be field upgraded to two loops with an additional loop card**.

With the mature multi loop Syncro software at its heart, the Syncro AS benefits from many years of development and refinement to provide a Fire Control Panel of outstanding and unchallenged robustness, versatility and flexibility.

Syncro multi-loop fire panel users will immediately be familiar with the features and functionality of the Syncro AS panel. It has the same display, help screens, menus, configuration options and controls as the Syncro panel range with all of the power and flexibility that comes from compatibility with other components of the multi-loop Syncro system and peripherals.

This ensures that for those familiar with Syncro multi-loop panels, no retraining is required.

Syncro AS fully supports all devices from the leading, open protocol detector manufacturers and can be supplied with Apollo (S90/XP95 /Discovery), Argus Spectrum (Vega) or Hochiki (ESP) loop drivers, all capable of providing up to 400 milliamps of loop current for the most demanding applications.

An integral three Amp power supply and temperature compensated battery charger provides ample power for the two, 1 Amp rated standard sounder outputs, loop powered sounders and other devices.

Syncro AS is also available as a Lite version offering a very cost effective solution for smaller standalone installations requiring only one detection loop. The Lite does not support the following: Second loop, Printer output, Networking and connection of I/O boards or the View repeater.

Connectivity

Syncro AS connects seamlessly to other Syncro AS, or Syncro multi-loop panels and repeaters via the fully fault tolerant and robust Syncro network.

The Syncro AS supports all Syncro serial bus peripherals such as View repeaters, 16 channel I/O boards, Relay boards, Sounder boards and Conventional Zone boards to provide an additional 512, fully programmable points.

16 zonal LED indicators are provided as standard and the panel will support up to 500 network wide software zones as per Syncro multi-loop panels.

Powerful Software

The simple and intuitive Loop Explorer configuration utility has been updated to include support for the Syncro AS providing the powerful cause and effect functionality familiar to Syncro multi-loop panel users.

The Guide graphics system or a modem for remote system interrogation by telephone lines may also be connected to Syncro AS panels via the RS232 serial connection.

All of the above combined with a host of different language options (including those with Cyrillic characters) produce an outstanding and competitive, world class fire alarm control panel.

Ease of Installation

The elegant and simple construction of the panel enables the chassis to be completely dismantled by removing just two screws. The outer cover can also be detached by removing two hinge pins making first fix installation very simple and enabling the sensitive electronic parts to be stored safely for re-fitting at the commissioning stage.

Housed in the same installer-friendly and attractively styled enclosure as the popular Sigma CP (Conventional) and Sigma XT (extinguishant) range of fire control panels, Syncro AS combines compact and practical styling with the programming power and connectivity normally associated with much larger systems.

Additional Facilities

Syncro AS is also available in a larger enclosure (M3) that incorporates a second aperture, which allows additional equipment to be added. As well as the thermal printer option, Kentec offers a range of add on's for the Syncro AS that can be used to provide additional rotary switches, key switches, or push buttons. These are available with or without LED indicators.

Modular switch plates

Syncro AS in larger enclosure with printer

Optional Printer module
Can be retrofitted to any M3 sized enclosures

Options with and without Enable Keyswitch available

Syncro AS Fully flush version

Example System Schematic

Each loop is capable of hosting up to:
126 devices (Apollo) or 240 devices (Argus Vega) or 127 devices (Hochiki)

(if fitted)

Loop 1   **Loop 2**   **Loop 3**   **Loop 4**

A mixture of up to 32 devices (including Syncro View) can be fitted to each panel on the RS485 serial interface. The maximum number of Syncro View panels on a single RS485 serial interface is 15.

Syncro View

Local LCD Repeater

Each loop is capable of hosting up to:
126 devices (Apollo) or 240 devices (Argus Vega) or 127 devices (Hochiki)

Syncro GUIDE Repeater

Repeater Facility for GUIDE System

Up to 16 GUIDE Repeaters may be connected to a GUIDE system via a LAN (Local Area Network)

Syncro GUIDE

Graphical User Interface for fire Detection Equipment

An RS232 to RS485 data converter is supplied with the GUIDE system.

The GUIDE dongle is fitted to the RS232 serial interface inside the Syncro Panel. It converts data to RS485 and must be fitted for the system to work.

Full function repeater panels are loopless, they come with a choice of 0, 16, 48 or 96 zone indicators.

RS485

RS232

Control panels are supplied with 2 or 4 detection loops and a choice of 0, 16, 48 or 96 zone indicators.

Supports all Syncro I/O modules.

RS485

Syncro

S555

Network Card Required

Analogue Addressable Control Panel

(if fitted)

Loop 1   **Loop 2**

Supports all Syncro I/O modules.

RS232   **RS485**

S545

4 way conventional zone board

24V DC

S546

6 way sounder board

24V DC

S547

8 Way relay board

24V DC

S560

16 Channel I/O board

24V DC

24V DC or 230V AC

Syncro Response

Full Function Repeater

High Integrity Configurable Network

S555

Network Card Required

Analogue Addressable Control Panel

RS485

RS232

S556 Modem Card

Up to 64 Panels/Repeaters can be added to the network.

Syncro AS

The Syncro system is compatible with Apollo, Argus Vega and Hochiki protocols. Panels of any of the above protocols can be used on the same network.

The Syncro network can be interrogated remotely by using the S556 modem module (normally fitted inside panel) connected via the telephone.

Syncro Focus

Network LCD Repeater

Syncro Focus+

Network LCD Repeater

24V DC or 230V AC

24V DC or 230V AC

The Syncro Control Panel is Approved to BS EN54-2 and BS EN54-4 - KM 73505

Syncro Analogue Addressable System
Powerful, Expandable, Versatile

The following matrix shows a full comparison of the features of the Syncro AS Lite versus the Syncro AS.

Feature	Syncro AS Lite	Syncro AS
Number of loops	1	1 or 2
Display	240 x 64 pixels graphical	240 x 64 pixels graphical
Protocols	Apollo, Argus Vega or Hochiki	Apollo, Argus Vega or Hochiki
Aux. 24V supply	500mA	500mA
Loop current	400mA	400mA
Programmable inputs	5 as standard	5 as standard
Programmable relays	3 as standard	3 as standard
Standard remote control inputs	Alert, Evacuate, Silence, Reset, Fault	Alert, Evacuate, Silence, Reset, Fault
External 24V supply input	Standard	Standard
Current available from PSU	3A	3A
Sounder outputs	2 fused at 1A each. Fully programmable	2 fused at 1A each. Fully programmable
Serial ports	1 (PC)	4 (Printer+Expansion I/O + PC + Network)
Number of fire zones	500	500
Zonal indicators	16	16
Event log	500 events	500 events
Internal Printer	Not available	Cost option
BS5839-1 compliant as standard	Yes	Yes
EN54-2 and EN54-4 compliant	Yes	Yes
Lockable enclosure	Yes	Yes
Vandal resistant display	Yes	Yes
Multiple language support	Yes	Yes
Repeaters	None	Serial bus or network connected
Programmable I/O module serial bus	None	Standard, up to 512 points
Network	None	Up to 64 nodes
3 year warranty	Yes	Yes
Single board construction	Yes	Yes
Easily removable equipment chassis	Yes	Yes
Compatible with Syncro network	No	Yes
Syncro based user interface	Yes	Yes
Network nodes	None	64
Real time clock with daylight savings	Yes	Yes
Compatible with modem	Yes	Yes
Compatible with Syncro GUIDE Graphics System	Yes	Yes
Loop Explorer Software and download lead	Yes	Yes

Syncro AS technical specifications chart.

Item	Electrical Rating	Comment
Mains supply	230V AC 50Hz +10% - 15%	Standard European mains connection
Mains supply fuse	1.6 A (F1.6A L250V)	Replace only with similar type
Power supply rating	3A total including battery charge 28V +/- 2V	
Maximum ripple current	200 mV	
Maximum battery size (M2 enclosure)	Two 12V 9Ah sealed lead acid	17Ah maximum battery size in M3 enclosure
Battery charge voltage	27.6V DC nominal (temperature compensated)	
Battery charge current	0.7A maximum	Modulated DC
Battery fuse	20mm, 3.15A glass	Replace only with similar type
Current draw in mains fail (after backlight off)	130 mA	Without network card or ancillary boards
Current draw in alarm condition	300 mA	Excluding sounders and loop sounders
Maximum current draw from batteries	3A	With main power source disconnected
Number of loops	1	1 only on Lite version
Zone indicators	16	Red LEDs via light guide
Software zones	500	Network wide
Device text assignment	40 characters per sub-address	Up to 800 sub-addresses
Aux 24V output	Fused at 500 mA with electronic fuse	200 mA maximum continuous load
Sounder outputs	Two at 21 to 28V DC fused at 1A with electronic fuse	Voltage reversing, programmable
Sounder end of line device	10K 5% 0.25W resistor	Supplied in terminals
Fault relay contact rating	5 to 30 V DC 1A maximum	Volt free changeover, programmable
Fire relay contact rating	5 to 30 V DC 1A maximum	Volt free changeover, programmable
Alarm relay contact rating	5 to 30 V DC 1A maximum	Volt free changeover, programmable
Maximum loop current	400 mA	
Loop Protocols	Apollo (S90, XP95, Discovery), Argus Vega, Hochiki ESP	Supports all devices
Remote control inputs types	Fault, Reset, Alert, Evacuate, Silence	All inputs programmable for any event type
Remote control input rating	Switched 0V via 50 ohms maximum resistance	
Serial I/O bus	RS485 multi-drop - 1200 metres maximum	Up to 512 additional program. Inputs/Outputs (Not available on Lite version)
Networking	RS485 fault tolerant ring	Up to 64 panels and repeaters, any or all peer to peer or master/slave (Not available on Lite version)
Network card current during mains fail	58 mA	Not applicable in Lite version
Event log	Up to 1000 events	Stored in non-volatile memory
Timekeeping	Real time clock with automatic daylight savings adjustment	March to October
Printer	ASCII, RS232, 19200, 8, N, 1	Optional 40 column thermal printer, (larger enclosure only) (Not available on Lite version)
PC/ Modem/ Graphics port	10 way connector compatible with Kentec download lead	RS232, 19200, 8, N, 1
PC configuration	Loop Explorer V4.60 onwards	Not compatible with older versions
Firmware	Flash memory	Can be updated on site
Display	240 x 64 pixel graphics LCD and high brightness LEDs	
Languages	All western and Cyrillic characters	Contact supplier for full, up to date list
Terminal capacity	2.5mm² solid or stranded cable	
Cabling	FP200 or equivalent (maximum capacitance 1uF, maximum inductance 1mH)	
Operating temperature range	-5 to 45 degrees Celsius	
Construction	Powder coated 1.2 mm mild steel	Standard size
Size (M2 enclosure)	385 x 310 x 90 (mm)	Panels with printer or additional modules
Size (M3 enclosure)	385 x 520 x 110 (mm)	
Finish (Lid and box)	BS 00 A 05 mid grey fine texture	
Finish (controls plate and labels)	RAL 7047 light grey	As per Sigma CP/XT range
Cabinet lock	Common key	As per Sigma CP/XT range
Enable controls keyswitch	Common key	As per Sigma CP/XT range