

Fireguard Analogue Addressable Control Panel

Arian

Arian is a powerful Analogue Addressable fire Alarm control system with networking capabilities that facilitate the configuration of complex wide area Fire detection systems.



1 to 3 Loops

Modular construction and distributed intelligence allow systems of up to 96 Loops to be constructed. With a high level of built in redundancy and emergency back up features the **Arian** is fully equipped to control the most complex installations.

Using its wide array of interfacing capabilities the **Arian** is ideally placed to provide an efficient and effective solution to the logistics of protecting large institutions. Universities, Airports, industrial complexes etc which may have many individual Fire Alarm systems but require central reporting and control can easily be accommodated by the advanced capabilities of the **Arian**.

Arian is available as a standalone system of up to 12 Loops in a single cabinet and can be expanded to up to 96 Loops via a networked array of sub-panels which can be supplied in a blank

box version or combined with a repeater to allow remote display and control of the system. Networking is by a monitored redundant RS422/485, Fibre optic loop or TCP/IP network. The **Arian** networking capabilities are further enhanced by a wide range of programming options which provide the capability to



1 to 12 Loops

customise the system according to the needs of the customer. Flexible cause and effect programming of I/O devices and warning devices ensure that Fire or Fault warnings trigger the appropriate response.

An interactive Graphic representation of the system can be displayed on the users' computer via the Odyssey Graphics software(Optional). All the devices on the system can be displayed on a building plan showing their status in real time. In the event of Fire or fault the customer can control the system and access all the necessary information with a few mouse-clicks.

Automatic Device detection at start up reduces time spent at the commissioning stage. In Installation mode the Arian detects and recognises addressed and connected devices with the system being fully operational in less than two minutes. The default programming ensures that the system is ready to detect Fire / fault alerts from the moment that power is applied. Additional programming, to customise the system can be implemented via the onboard keypad, IR programmer, PS 2 Keyboard or with a laptop PC running the GFE Loader software.

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Key Features

- Fully expandable system from 1-96 Loops with distributed intelligence for added security.
- 125 device addresses per loop Apollo / Fireguard, 254 Hochiki Protocol
- Up to 96 Loop sounders with 32 individually programmable addresses per Loop Apollo/Fireguard protocol, 127 with Hochiki protocol.
- 2 Fire output changeover relays
- Open collector outputs for Fire, Fault and pre-alarm remote indication.
- 2 fully monitored sounder outputs on main panel and each sub panel.
- Repeaters with optional integrated Sub-Panels
- Black box option for Sub Panels
- Detector loops fully monitored for integrity
- 384 programmable zones
- 512 fully programmable sounder and I/O groups
- Event Log 2000 entries FIFO
- Backlit LCD display 4 * 40
- Multiple programming options, onboard keypad, Remote IR, PS2 Keyboard
- Windows™ based Loader Software
- Windows™ based PC Graphics package for alarm management and reporting(Optional)
- Multiple Language support(menu selectable)
- BMS output RS 232(Optional)
- Evacuate / Class Change input

SPECIFICATIONS	1 & 3 LOOPS	4 to 12 LOOPS
LOOPS	1 to 3 loops - max 250mA per loop	4 to 12 loops - max 250mA per loop
DISPLAY	LCD 4 row/40 characters per row	LCD 4 row/40 characters per row
SOUNDER OUTPUTS	2 at 24Vdc/400mA	4/6/8 24Vdc/ 1A
SOUNDER GROUPS	512	512
AUX. RELAYS FIRE	2 rated 50 VAC/DC 1A resistive	2 rated 50 VAC/DC 1A resistive
AUX. RELAY FAULT	1 rated 50 VAC/DC 1A resistive	1 rated 50 VAC/DC 1A resistive
AUX POWER OUTPUT	24Vdc 460mA	24Vdc 1A
ADDITIONAL OUTPUTS	Multiplexed up to 384 Programmable	Multiplexed up to 384 Programmable
PRIMARY SUPPLY	85 - 265 Vac, 50/60Hz	85 - 265 Vac, 50/60Hz
SECONDARY SUPPLY	24 Vdc Nominal	24 Vdc Nominal
POWER SUPPLY RATING	65w	150w
QUIESCENT CURRENT (NO DEVICES)	130mA	130mA
BATTERIES (INTERNAL)	2 x 12V 12 AH	2 x 12V 12 AH
DIMENSIONS	H: 370 W: 340 D: 127 mm	H: 420 W: 550 D: 127 mm
WEIGHT (NO BATTERIES)	5,1 Kg (no batteries)	8,1 Kg (no batteries)
OPERATING TEMPERATURE	0°C to +40°C	0°C to +40°C
STORAGE TEMPERATURE	-10 to +50°C	-10 to +50°C
HUMIDITY	max 85% no condensation	max 85% no condensation
PROTECTION CATEGORY	IP40	IP40
EMC - Same for all models	EMC Directive 89/336 and amendment 92/31 EEC & Low Voltage Directive 72/23 EEC	

TECHNICAL SPECIFICATIONS

Arian

Please note that these specifications apply to the stand-alone Arian Analogue Addressable panel, 1 or 3 loops models, equipped with a 2.4 Amp power supply.

Weight:	Empty:	5.1 Kg
	Including sealed lead acid batteries:	
	2 x 12 V 7 AH I	10.5 Kg
	2 x 12 V 12 AH	13.5 Kg
Operating temperature:	0°C to + 40°C	
Relative Humidity:	85% (non-condensing)	
Conventional Sounder Circuits:	2 individually programmed. Both circuits current limited and monitored for both open and short circuit fault conditions. 10k Ohm E.O.L. resistors are used. Maximum current rating/sounder circuit 400mA.	
Auxiliary Relay Outputs:	2 voltage free changeover relay outputs used for fire indication. 1 voltage free relay output for fault indication. Remains energised (normally closed) under normal condition and de-energises when any fault condition appears on the system. Maximum current rating for each relay contact 1A @ 50 V AC/DC resistive.	
Sensor / Loop Circuits:	1 loop or 3 loop models. Supports analogue addressable devices over a 2 wire combined power and digital data transmission loop. Maximum single loop current loading is 250 mA. Maximum total current load for 3 loops is 750mA. Maximum recommended loop length is 1 Km with 1.5 mm ² wire cross-section. Maximum cable capacitance 120 pF/m. Minimum cable cross-section: 0.5 mm ² Maximum cable cross-section: 2.5 mm ²	
<u>Power Supply and Charger</u>		
Input Operating Voltage:	85-264 V AC.	
Power supply protection:	4 Amp - Fast Action 20 mm HRC Fuse located on electrical mains connector TB, placed on top of the aluminum PSU cover.	
Maximum Continuous Primary Power Supply Rating:	2.4 Amps @ 28 V DC nominal, comprising: 1 Amp max. temperature compensated, short circuit protected, battery charger. 1.4 Amp used for internal electronic circuits and external ancillary circuits: A maximum of 750 mA is available for loop power (250 mA/loop). Maximum of 150 mA for internal electronic circuits. 460 mA for auxiliary power supply output. Under alarm conditions a maximum of 1 Amp current available for conventional sounder circuits.	

TECHNICAL SPECIFICATIONS

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Power Budget Quiescent Condition:	a - 150 mA internal circuits b - 460 mA auxiliary supply outputs c - 750 mA for analogue loop power d - 1 Amp for battery charger.
Alarm Condition:	800 mA for conventional sounder circuits +a+b+c
DC Output Voltage:	Maximum 27.5 V DC Minimum 18.9 V DC
Max. Ripple Voltage:	1 V peak-to-peak @maximum output loading.
Battery Charger Output:	27.5 V DC nominal @ 20°C
Secondary Supply:	24 V sealed lead acid batteries. Minimum capacity 2 x 7 AH Maximum capacity 2 x 12 AH Both fitted internally. Battery Fuse 3 A - 20 mm HRC

Repeater

Supply voltage	24V DC nominal
Quiescent current (without devices)	130mA
Dimensions	W 340mm x H 370mm x D 125mm

Standard Sub-panel

Primary supply voltage	85 - 264 VAC
EMC Standard	EN55022 class B EN61000-4-2,3,4,5,6,8,11 EN61000-3-2,3
Secondary supply voltage	24V DC nominal
Power supply rating	150W
Quiescent current (without devices)	80mA
Repeater outputs	Open collector 24V DC 100mA max
Dimensions 1-9 loops	W 340mm x H 370mm x D 125mm

WARNING: In case of a short circuit or interruption of the analogue detection loop, only a maximum of 32 detectors or call points (per loop) can be prevented, at any given time, of transmitting a fire alarm. In order to assure compliance with this clause, loop isolators have to be installed every 32 devices in the loop