## Class 5

# Intruder Alarm System

The Gallagher Class 5 Intruder Alarm System (IAS) provides you with a fully encrypted, authenticated, and compliant Class 5 level Alarm System, the highest level of the AS/NZS 2201 intruder alarm system standard.

#### High level security

Gallagher's Class 5 Intruder Alarm System protects high value assets and information from emergent threats to successful intruder detection and alarms transmission.

#### Secure system

The Gallagher Class 5 IAS has been designed from inception to be a highly secure system, features include:

- Class 5 compliant secure enclosure, with a bi-lock system, and vibration sensor for tamper protection
- Monitored battery health and discharge times ensure mains power is restored before security is compromised
- End of line modules (ELMs) constantly monitor alarm sensor communications with regular heartbeats, ensuring alarms are raised if communications with the FLMs are severed
- Dual factor authentication for disarming the Class 5 System is provided by our T20 Mifare or MultiTech Terminal

#### End of Line Module (ELM)

Where AS/NZS 2201 Class 5 intruder alarm compliance is required, Gallagher Command Centre combined with the Gallagher HBUS ELM form part of a compliant installation.

## **Class 5 Cabinet, C6000 & PSU** C306105



#### Core components

A Class 5 Cabinet, Controller 6000 and 100W PSU comprise the base elements of a Class 5 compliant alarm system installation. The system ships with the following elements:

- 1 x Class 5 Dual Cabinet
- 1 x Class 5 PSU, 100W
- 1 x Controller 6000 HS PIV
- 1 x Vibration sensor
- 2 x Cabinet bi-lock keys
- 1 x Installation guide





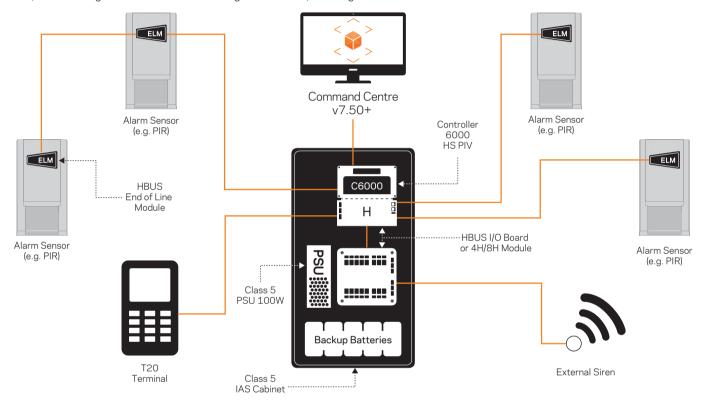
#### Why do I need a Class 5 IAS?

Sophisticated attacks on traditional alarm systems can render alarm sensors blind to intruder activity, leaving high value assets and intellectual property vulnerable.

Gallagher's Class 5 system uses the latest digital encryption security standards to protect against this type of vulnerability, ensuring alarms are always reported should your sensors come under attack.

#### The Class 5 Intruder Alarm System Architecture

The Class 5 IAS delivers full end-to-end authentication and encryption for a site's security system, monitoring a network of ELM's (located inside sensors) that send regular heartbeats to the Gallagher Controller, ensuring that alarms are raised if communications with the ELM are cut.



#### **HBUS** benefits

Leveraging the benefits of Gallagher's HBUS protocol, the Class 5 IAS can auto-upgrade system devices, has plug and play authentication for quick and secure installation, end-to-end encryption, and can support up to 30 ELM modules per C6000 controller.

#### AS/NZS Intruder Alarms Standard

AS/NZS 2201 comprises a series of Intruder Alarms standards which include mandatory, optional and advisory specifications applicable to all elements of an intruder alarm system.

The objective of the standard is to assist insurers, alarm companies, equipment manufacturers, clients and the police in achieving a complete and accurate statement for an intruder alarm system required in particular premises.

The standard classifies alarm system equipment functionality and performance, from Class 1 (lowest security level) to Class 5 (highest security level). Gallagher complies to all equipment requirements specified for Class 5 compliant alarm system installations.



#### **Note: Gallagher Command Centre**

Command Centre v7.50.530 (and later) is required for the Class 5 IAS, allowing the Gallagher system to be used in AS/NZS 2201 Class 5 compliant intruder alarm installations. The Class 5 IAS can be used as part of a regular Command Centre solution, there is no need for two separate systems.



#### **Everything you need**

Gallagher provides a complete Class 5 solution. With the Class 5 Cabinet, PSU and Controller, HBUS ELM, Command Centre, and HBUS devices we have everything you need to deploy a fully compliant system. Each of the parts have a range of outstanding merits and can be purchased individually.

#### **HBUS End of Line Module C300636**

The Gallagher HBUS End of Line Module (ELM) is a small PCB encapsulated in a protective potting resin and plastic casing, with a unique HBUS device serial number.



The plastic module measures  $32 \text{mm} \times 17 \text{mm} \times 10 \text{mm}$ , and is designed to fit inside the tamper-proofed housing of a high grade alarm sensing device (i.e. PIR, contact sensor), or in a tamper-proofed junction box. Benefits of the Gallagher HBUS ELM are shown below:

#### Secure

The ELM operates as a configurable HBUS device, allowing the module to authenticate with the controller and establish encrypted communications. The ELM sends regular heartbeats, ensuring that alarms are raised if communications are severed.

#### Easy install

With a small form factor the ELM is easy to install into an existing sensor device or tamper-proofed junction box. Integrated support for sensor walk-test functionality also removes the need to run extra wiring.

#### Physical input connections

The HBUS ELM supports the following physical input connections with the sensor:

- Alarm contact alerts the system that the sensor has detected a potential alarm condition (e.g. a PIR detecting someone walking in front of it)
- Tamper contact alerts the system that the sensor has been tampered (e.g. someone has removed the sensor tamper-proof cover to gain access to the sensor or end-of-line module)
- Anti-masking contact Alerts the system that an attempt has been made to mask the sensor (e.g. someone covering a PIR when the area is disarmed). This is available for sensor devices that have an anti-mask output that can be directly wired into the ELM.

#### Walk-test output

The HBUS ELM supports a dedicated walk-test output, eliminating the need for separate cabling. The walk-test output is integrated into standard Command Centre test mode functionality, is supported on the T20 Terminal, and is compatible with specific requirements of high grade alarm sensors, including SCEC approved sensors.

#### Class 5 Cabinet, Cool Grey C306104

In addition to front and rear optical tamper support, removable door for easy installation, DIN rail mount, and side cable entry knockouts, the cabinet also provides:

- Installed bi-lock (2 keys provided)
- Vibration sensor
- Room for additional battery storage (batteries sold separately)



The 100W PSU meets Class 5 requirements for battery charging and monitoring and supports several features:

- IEC mains power connection
- Battery connectors for battery health monitoring and recharging
- Battery temperature sensor for optimized PSU battery management
- Alarm outputs for mains fail, battery low and no battery alarms
- Supported input voltage: 180-264 VAC

#### Controller 6000 HS (High Spec) - PIV C305101

The Controller 6000 HS - PIV retains all of the functionality of the standard C6000 while providing specific support for the HBUS ELM via an onboard, dedicated encryption chip.





## Class 5 Cabinet, Controller & PSU C306105

All-in-one Class 5 Cabinet, Controller C6000 HS -PIV, and pre-mounted Class 5 PSU, 100W.





#### HBUS 8 Port Hub C300698

8 downstream HBUS ports



Easy alarm system management



#### HBUS 16 In 16 Out Board

#### C300688

- 16 inputs
- 16 outputs



#### HBUS 8 In 4 Out Board C300684

- 8 inputs
- 4 outputs



### Technical Specifications

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Product nur	mbers					
C306105	Class 5 Cabinet, Contro	oller and PSU	C306104	Class 5 Cabinet, Cool Grey	C300698	HBUS 8 Port Hub
2300636	HBUS End Of Line Mod	ule	C306440	Class 5 PSU, 100W	C300688	HBUS 16 In 16 Out Board
C305101	Controller 6000 High Sp	pec - PIV	C300463	T20 Alarms Terminal	C300684	HBUS 8 In 4 Out Board
Class 5 Cal	binet					
Product detail		Construction:		Approx 1mm (0.03in) thick steel		
		Gallagher footprints:		2		
Standards compliance		AS/NZS 2201				
Dimensions		Height x Width x Depth:		620 x 375 x 185mm (24.4 x 14.8 x 7.3in)		
		Weight:		6.8 kg (14.99lb)		
Class <u>5 Pov</u>	wer Supply Unit					
Product detai	11.7	Construction:		100W no break 13.8V DC battery backup power supply		
		Built in Protection:		Current limits and battery fuse		
		Monitoring:		Relay outputs, battery temperature, mains fail battery low, battery fault, battery charge voltage compensation		
		Mains Lead:		Note: A standard IEC mains lead to fit the power supply is NOT provided, and will need to be sourced locall		
Power		Input voltage:		180-264VAC		
		Primary output voltage:		13.8VDC		
		Total output current:		7A including battery charging		
Environmental limits		Operating temperature:		-10° to +50° C (14°F to 122°F)		
Standards compliance		CE, C-Tick, EN50130-4, EN55022 (EMC), RCM, AS/NZS 2201 Class 5 (as part of a Class 5 system)				
Controller (	6000 HS - PIV					
Product detail		For information on the Controller 6000 HS - PIV variant, please refer to the Controller 6000 Datasheet				
HBUS End	of Line Module					
Product deta	ail	Maximum # of ELM's	per HBUS circ	cuit: 30		
		Maximum # of ELM's	per C6000 H	6 PIV Controller: 30		
Power		Current:		15mA		
Environment	al limits	Operating temperatu	re:	-10°C to +70°C		
		Humidity:		95% non-condensing		
Communicat	ions	RS485 at 1Mb/s				
Standards co	tandards compliance CE, C-Tick, EN50130-4, EN55022		2 (EMC), AS/NZS 2201			
Dimensions		Height x Width x Dep	oth:	32 x 17 x 10mm (1.26 x 0.67 x 0.4in)		
Backup bat	tteries					

Product detail Note: Batteries are NOT provided. 12V batteries MUST be used. We recommend 12V 7AH Sealed Acid batteries, (e.g., Yuasa NP7-12, CSB Battery Company GP1270). A maximum of five batteries can fit in the space in the Cabinet.

#### **GALLAGHER WORLD HEADQUARTERS**

Kahikatea Drive, Hamilton 3206 Private Bag 3026, Hamilton 3240 New Zealand

**TEL:** +64 7 838 9800 **EMAIL:** security@gallagher.com







#### **REGIONAL OFFICES**

New Zealand	+64 7 838 9800
Americas	+1 877 560 6308
Asia	+852 3468 5175
Australia	+61 3 9308 7722
India	+91 98 458 92920
Middle East	+971 4 5665834
South Africa	+27 11 974 4740
United Kingdom / Europe	+44 2476 64 1234

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