

# Controller 6000

The Gallagher Controller 6000 (C6000) delivers real-time decision making in the field, ensuring your site operates safely and efficiently.

## Scalable, intelligent control

The C6000 is an IP based controller, capable of managing all localized access control, intruder alarms, perimeter security, business automation and logic needs for an organization.

Able to operate independently from the Command Centre server, the C6000 ensures predefined responses to monitored events, site safety and continuity. The C6000 features a highly scalable system design, able to scale from single controller systems to global systems with 1,000+ controllers.



## Key features

- IP based 10/100 Ethernet connectivity, with 1Gb network option
- Access control support for up to 10 wired doors, with multiple readers configurable per door
- Intruder alarms monitoring and transmission to external monitoring stations
- Serverless enforcement of business policy, ensuring staff operate in a safe and secure environment
- High speed RS-485 connectivity and software updates to field devices
- Programmable controller based logic, able to operate independently of the server
- Strong authentication and encryption between the C6000 and all Gallagher elements of the system
- Support for elevator access control
- Support for integrated perimeter security
- Support for integration directly with building management systems
- Support for multiple wiring topologies, allowing easy connectivity of existing field devices without re-wiring
- Native programming interface for integration between the controller and 3<sup>rd</sup> party systems, independent of Command Centre server connectivity
- Multiple cabinetry and powering options dependent on site requirements
- Peer-to-peer inter-controller monitoring
- High security variants for advanced security needs

### Provides support for up to:

- 256 alarm zones
- 2000 access groups
- 400 time schedules
- 500,000 standard cardholders
- 100,000 Mobile Connect credentials
- 80,000 events
- 60 inter-controller peer to peer connections
- An unlimited number of access zones

### Access Control

The C6000 supports access control of up to 10 doors, without the need for further downstream door controllers. The controller supports connectivity to a range of reader protocols, including Gallagher T-Series HBUS, CardaxIV, and 3<sup>rd</sup> party Wiegand, OSDP, and Aperio™ readers. The C6000 also provides a range of wiring connectivity options for re-use of existing site wiring, with reader connectivity and door I/O options such as the:

- 8H / 4H Module - Connecting directly into the controller, supporting respectively 8 or 4 readers and door I/O (HBUS)
- 8R / 4R Module - As above, supporting respectively 8 or 4 readers (CardaxIV), or 4 or 2 readers (Wiegand) and door I/O
- HBUS Door Module / HBUS Door Mobile Wiegand - Connected via RS-485 wiring to the controller, supporting 2 readers (HBUS or Wiegand respectively) and door I/O

The controller supports advanced access control functions such as mobile credential support, anti-passback, anti-tailgating, dual authorization, elevator floor access, and visitor escorting functions.

### Intruder Alarms

Used in conjunction with the Gallagher T20 Terminal, the C6000 supports full intruder alarms functionality, including arming and disarming, entry and exit paths, sensor walk testing, and high security options such as authenticated and encrypted sensor communications and sensor masking detection alarms.

The controller supports transmission of alarms to external monitoring stations via LAN/WAN networks using encrypted DC09 or CSV IP Alarms standards, cellular networks (via optional Cellular Modem), or PSTN networks (via optional Gallagher Dialer).

### Business Policy Enforcement

The C6000 is capable of enforcing business policy at the door, ensuring that all staff and visitors remain physically safe and compliant on site. This can include enforcement of an individual's compliance to enter an area (e.g. site inductions, licenses, and accreditation), safety policies (e.g. automated site lockdown based on a combination of pre-defined events), drug and alcohol policies (e.g. randomized alcohol testing prior to site entry), and fatigue policies (e.g. enforcing rest periods before site re-entry), with enforcement occurring irrespective of Command Centre server connectivity.

## Controller 6000 variants

In addition to the standard C6000 four other variants are available, each addressing different business requirements. Options include:

### C6000 Two Door

The C6000 Two Door provides a cost effective means of managing a maximum of two doors, with kits available supporting HBUS or Weigand readers, and Power over Ethernet (POE) options.



### C6000 Starter Kit

This controller supports up to ten doors, and allows a small site to get up and running with access and alarms functionality. Limited to the first C6000 per site, it comes with it's own Starter Kit Command Centre license.



### C6000 High Spec (HS)

Engineered for very high security requirements, the HS controller has all the features of the standard C6000 but also includes:



### C6000 High Spec PIV (HS PIV)

The HS PIV C6000 is compliant to the US Federal FIPS201-2 standard. It contains modifications particular to that specification and supports all the high security features of the C6000 HS. The C6000 HS PIV also meets compliance for ASNZ 2201 - Class 5 intruder alarm systems.



#### Network redundancy

The C6000 HS has dual Ethernet ports so that if the primary communication circuit fails, then the controller can automatically fail over to the secondary port (the controller has a single network address configuration set for both ports). 1GB Ethernet data transfer is included on the C6000 HS, allowing users to take full advantage of this high speed network technology.

#### Over temperature shutdown

If the temperature of the controller exceeds safe working levels the controller will shutdown before functions are compromised, saving all information and will remain shutdown until the temperature has returned to normal.

#### In Service Relay

The C6000 has an In Service Relay to signal an external alarm if the C6000 fails. Contacts close when the controller is powered up, and remain closed until either the power is removed or there is a catastrophic failure. In the event of a catastrophic failure, after approximately 60 seconds the In Service Relay opens.

#### Dedicated encryption chip

Enhanced protective measures are provided by an additional crypto chip, providing dedicated key storage and cryptographic functionality for the C6000.

### C6000 High Spec PIV (HS PIV), Two Door

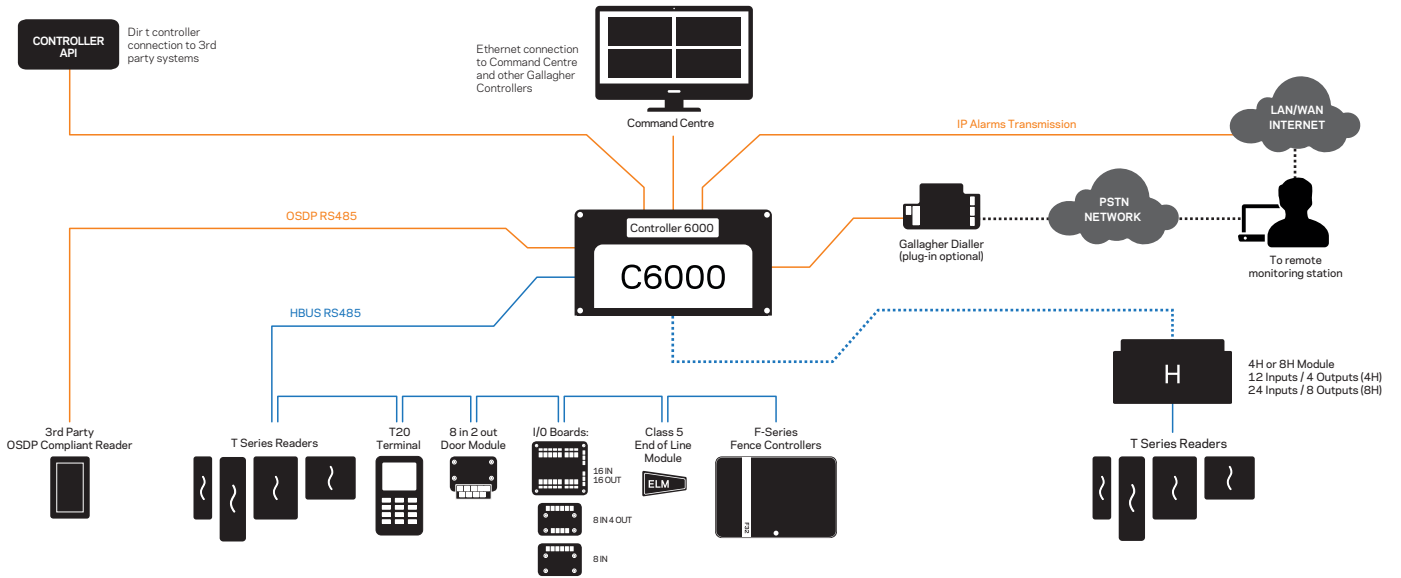
The HS PIV C6000, Two Door, is a cost effective PIV controller for access control requiring only 1-2 doors at each physical location. It is compliant to the US Federal FIPS201-2 standard and with ASNZ 2201 - Class 5 intruder alarm systems. Requires PIV Command Centre v8.10 or later.



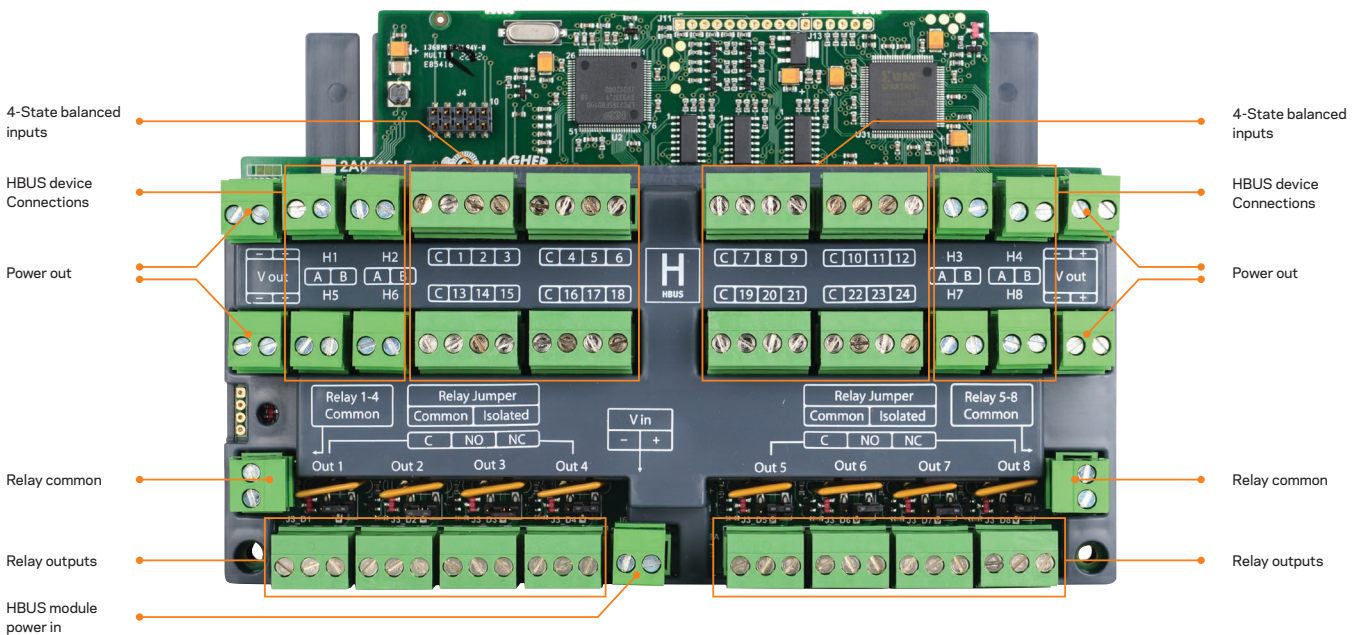
## Controller 6000 variant overview

Feature	Two Door	Starter Kit	Standard	High Spec	HS PIV 2 Door	High Spec PIV
Doors supported	2	10	10	10	2	10
USB port	✓	✓	✓	✓	✓	✓
Mobile Credential Support	✓	✓	✓	✓	✓	✓
Ethernet 10/100 port	1	1	1			
Ethernet 10/100/1000 port				2	2	2
Ethernet port switching				✓	✓	✓
Security microprocessor				✓	✓	✓
Temperature sensor				✓	✓	✓
In-service relay				✓	✓	✓
USA FIPS201-2 compliant					✓	✓
AS/NZS 2201 Class 5 compliant					✓	✓

# Controller 6000 System Diagram



# Key features of the Controller 6000 and 8H Module



C6000 High Spec (HS) model shown for display purposes

# Technical Specifications

Product numbers					
C300100	Gallagher Controller 6000	C300111	Gallagher Controller 6000, 2 Door Variant	C305101	Gallagher Controller 6000 HS PIV
C300101	Gallagher Controller 6000 High Spec	C305111	Gallagher Controller 6000 HS PIV, 2 Door		

Controller 6000					
	Tamper protection	Optical wall and unit tamperers			
	Max. Number of Elevator levels per C6000	Low level interface	75		
		High level interface	256**		
Power	Voltage	13.6 v DC±15%			
	Idle current @ 13.6Vdc*	No Relays	4 Relays	8 Relays	
	<ul style="list-style-type: none"> <li>C6000</li> <li>C6000HS &amp; HS PIV</li> </ul>	175mA	320mA	460mA	
		610mA	730mA	870mA	
Environmental limits	Operating temperature				
	-10 ° to +70 ° C (C6000)				
	-10 ° to +55 ° C (C6000HS & HS PIV)				
	Humidity	95% Non-condensing			
Communications	Ethernet network connection				
	<ul style="list-style-type: none"> <li>C6000</li> <li>C6000HS &amp; HS PIV</li> </ul>	10/100 BaseT Ethernet Port			
		10/100/1000 BaseT Ethernet Port (2 ports)			
	RS485 Device Communications (2 Ports)				
	<ul style="list-style-type: none"> <li>HBUS</li> <li>GBUS</li> <li>OSDP</li> <li>SensorBUS</li> <li>Aperio</li> </ul>	Maximum speed			
		1Mbit/s, 500m (1640ft)			
		38.4Kbit/s, 1200m (3937ft)			
		115.2Kbit/s, dependent on cable type			
		115.2Kbit/s, dependent on cable type			
		19.2Kbit/s, 1000m max.			
	Number of ports		1 x USB 2.0 port		
			1 x RS232 port		
	TCP/IP protocol		256bit AES* symmetric encryption for Controller to Server and Inter-Controller communications		
	Ethernet network connection				
	<ul style="list-style-type: none"> <li>C6000</li> <li>C6000HS &amp; HS PIV</li> </ul>	10/100 BaseT Ethernet Port			
		10/100/1000 BaseT Ethernet Port (2 ports)			
Standards compliance	CE, RCM, FCC, UL, FIPS 201-2 GSA APL, AS/NZS 2201 - Class 5 Compliance and certification information is available on our support site or by contacting Gallagher				
Dimensions	Height x width x depth		100 x 180 x 42mm (3.9 x 7.1 x 1.7in)		
	Gallagher mounting footprint		1		
Additional notes	<p>*This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<a href="http://www.openssl.org/">http://www.openssl.org/</a>)</p> <p>**Please refer to Technical Reference Manual: 3E1012 for more information</p> <p>*Note: Current measurements are indicative only and exclude external devices. Currents have been rounded up to the nearest 5mA. Controller 6000HS measurements include the use of both primary and secondary Ethernet ports. Please refer to the Gallagher Connectivity Guide and product Installation Notes for detailed power supply and operating characteristics</p>				

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