



# Controller 7000 Product Range

The Gallagher Controller 7000 Product Range introduces the next level of cyber security, seamless upgrades for existing sites and provides a Platform for the Future.

## A new age of cyber defence

The Controller 7000 (C7000) range introduces a new generation of cyber defence with enhanced hardware, that uses industry-leading security infrastructure to generate, process and store cryptographic keys and certificates. With a Controller 7000 you have industry leading protection against attacks on firmware in the supply chain and a platform ready for the future.

The C7000 Product Range are IP based controllers that can manage 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 C7000 Product Range ensures predefined responses to monitored events, site safety, and continuity. C7000 features a highly scalable system design, able to scale from single door systems to global systems with up to 10,000 controllers per server.

## Key features

- IP based 10/100 Ethernet connectivity with an option for 1Gb networks
- 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 - even if connection to the server is lost
- High speed RS-485 connectivity and software updates to field devices
- Programmable controller-based logic that operates independently of the server
- Industry leading authentication and encryption between the C7000 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 3rd party systems, independent of Command Centre server connectivity
- Multiple cabinetry and powering options dependent on-site requirements
- Peer-to-peer inter-controller monitoring
- Optional Dual ethernet featuring two separate MAC addresses
- Optional temperature sensor and in service relay
- High security variant for advanced security needs

## Provides support for up to:

- 256 alarm zones
- 2000 access groups
- 400 time schedules
- 2,000,000 cardholders
- 1,000,000 events
- 1000 active alarms
- An unlimited number of access zones

## Access Control

The C7000 Product Range supports access control of up to 10 doors and 256 Alarm Zones without the need for further downstream door controllers. These controllers support connectivity to a range of reader protocols, including Gallagher T-Series HBUS, CardaxIV, 3rd Party Wiegand, OSDP, and Aperio readers.

The C7000 Product Range 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 up to 24 Inputs and 8 Outputs.
- 8R/4R Module - As above, supporting respectively 8 or 4 readers (CardaxIV), or 4 or 2 readers (Wiegand) and up to 24 Inputs and 8 Outputs.
- HBUS Door Module/HBUS Door Module Wiegand - Connected via RS485 wiring to the controller, supporting 2 readers (HBUS or Wiegand respectively) and
- HBUS IO boards allowing the configuration of up to 512 Inputs and 512 Outputs.

The controllers support 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 C7000 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 standard and optional serial port for connection to third party systems.

## Business Policy Enforcement

The C7000 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.

## Dedicated encryption chip

The Controller 7000 uses a Secure Element to keep all keys and certificates separate from the main microprocessor. This additional level of protection provides industry leading cyber security.

## C7000 Starter Kit

This kit includes a C7000 Enhanced and supports up to eight doors and allows a small site to get up and running with access and alarms functionality. Limited to the first Gallagher Controller per site, it comes with its own Starter Kit Command Centre license.

\*Available mid 2025.

## Controller 7000 variants

### Controller 7000 Standard

The Controller 7000 (C7000) introduces a new generation of cyber defence with enhanced hardware, that uses industry-leading security infrastructure to generate, process and store cryptographic keys and certificates.

The C7000 is an IP based controller that can manage 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 C7000 ensures predefined responses to monitored events, site safety, and continuity.



### Controller 7000 Single Door

The Controller 7000 Single Door (C7000 SD) is a powerful network connected controller, providing a complete and flexible solution for your business expansion one door at a time. The C7000 SD Power over Ethernet variants are designed to remove the need for power supplies, cabinets, and long expensive cable runs - reducing cost and time of installation. The small but mighty device is a lower-cost controller that can be utilized for system interfaces, alarm monitoring, perimeter security, and external device control.

The C7000 SD is designed to operate as a standalone or to complement the capabilities of existing Gallagher hardware.



### Controller 7000 Enhanced

The Controller 7000 Enhanced is designed for sites that want to future proof their network with Gb ethernet, require network redundancy (including two ethernet ports with their own MAC address capable of supporting separate networks) or desire a higher level of protection with an in-service relay, temperature sensor and eFuses. The Enhanced controller also includes a serial port for sites needing to use an alarms dialler or connection to third party systems.



### High Sec Controller 7000

The High Sec Controller 7000 is designed to meet the needs of sites with the strictest of security needs.

This controller also includes all the advanced features in the Controller 7000 Enhanced and uses a secure access module that is rated to FIPS 140-3 and EAL6+.



## Controller 7000 Variant Overview

Capacity Support	C6000 Standard	High Sec C6000	C7000 Single Door	C7000 Standard	C7000 Enhanced	High Sec C7000
<b>Maximum Inputs</b>	24 (expandable to 280)	24 (expandable to 280)	6	24 (expandable to 536)	24 (expandable to 536)	24 (expandable to 536)
<b>Maximum Outputs</b>	8 (expandable to 264)	8 (expandable to 264)	2	8 (expandable to 520)	8 (expandable to 520)	8 (expandable to 520)
<b>Maximum Doors</b>	10 (recommended)	10 (recommended)	1	10 (recommended)	10 (recommended)	10 (recommended)
<b>Maximum Readers</b>	20	20	40	40	40	40
<b>Maximum Alarms Terminals</b>	10	10	20*	20*	20*	20*
<b>Maximum Stored Events</b>	80,000	80,000	1,000,000	1,000,000	1,000,000	1,000,000
<b>Maximum Cardholders</b>	500,000	500,000	2,000,000	2,000,000	2,000,000	2,000,000
<b>Maximum Alarm Zones</b>	256	256	256	256	256	256
<b>Maximum Active Alarms</b>	100	100	1000	1000	1000	1000

\*Only 10 simultaneous log ins allowed

Hardware Features						
<b>Onboard Ethernet</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Maximum Ethernet Speed Support</b>	10/100 Mbps	10/100/1000 Mbps	10/100 Mbps	10/100 Mbps	10/100/1000 Mbps	10/100/1000Mbps
<b>Dual Ethernet</b>	No	Yes, Single MAC	No	No	Yes, dual NICs*	Yes, dual NICs*
<small>*Available from 9.20 or later</small>						<small>*Available from 9.20 or later</small>
<b>Embedded Processor</b>	ARM9	ARM9	NXP i.MX8x	NXP i.MX8x	NXP i.MX8x	NXP i.MX8x FIPS
<small>*Available from 9.20 or later</small>						
<b>Memory</b>	64MB RAM 128 NAND	64MB RAM 128 NAND	512MB RAM, 8GB eMMC			
<b>RS-485 Downstream Ports</b>	Yes (2 ports)	Yes (2 ports)	Yes (1 port)	Yes (2 ports)	Yes (2 ports)	Yes (2 ports)
<b>RS-485 Port Maximum Speed</b>	1 Mbps					
<b>PoE Support</b>	No	No	Yes, PoE+variants	No	No	No
<b>Peer-To-Peer Communications</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Virtual Outputs</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Upstream Encryption</b>	AES 256bit					
<b>Encryption to Field Devices</b>	ECC 256bit Auth, AES 128bit Symmetric	ECC 256bitAuth, AES 128bit Symmetric				
<b>Automatic Software Upgrades of Downstream Devices</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Offline Controller Logic Support</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>DIP Switches</b>	8	8	8	8	8	8
<b>Run Indicator LED</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Temperature Sensors</b>	No	Yes	No	No	Yes	Yes
<b>Over Temperature LED</b>	No	Yes	No	No	Yes	Yes
<b>PSTN Dialler Support</b>	Yes	Yes	No	No	Yes	Yes
<b>Tamper Detection</b>	Yes – optical tamper	Yes – optical tamper	Yes -Microswitch	Yes – optical tamper	Yes – optical tamper	Yes – optical tamper
<b>USB Expansion Port</b>	Yes	Yes	No	Yes	Yes	Yes
<b>RS232c Serial Port</b>	Yes	Yes	No	No	Yes	Yes
<b>Secure Boot</b>	No	No	Yes – 384bit Strength	Yes – 384bitStrength	Yes – 384bit Strength	Yes – 384bit Strength
<b>CPU Internal Watchdog</b>	No	No	Yes	Yes	Yes	Yes
<b>Real Time Clock with Backup Capacitor</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Board ID Resistors (ADC)</b>	Yes	Yes	No – Variant recorded in OTP			
<b>Connector for Plugin Module</b>	Yes	Yes	No	Yes	Yes	Yes
<b>Security Chip</b>	No	VAULTIC HS	Edgelock	Edgelock	Edgelock	FIPS 140-3 approved Edgelock
<b>In Service Relay</b>	No	Yes	No	No	Yes	Yes
<b>Key Lengths</b>	P256 & SHA 1 Factory P384 & SHA 384 Site	P256 & SHA Factory P384 & SHA 384 Site	P384 & SHA 384			
<b>RS485/external power Overload fuses</b>	Polyfuses	Polyfuses	eFuses (monitored)	Polyfuses	eFuses (monitored)	eFuses (monitored)

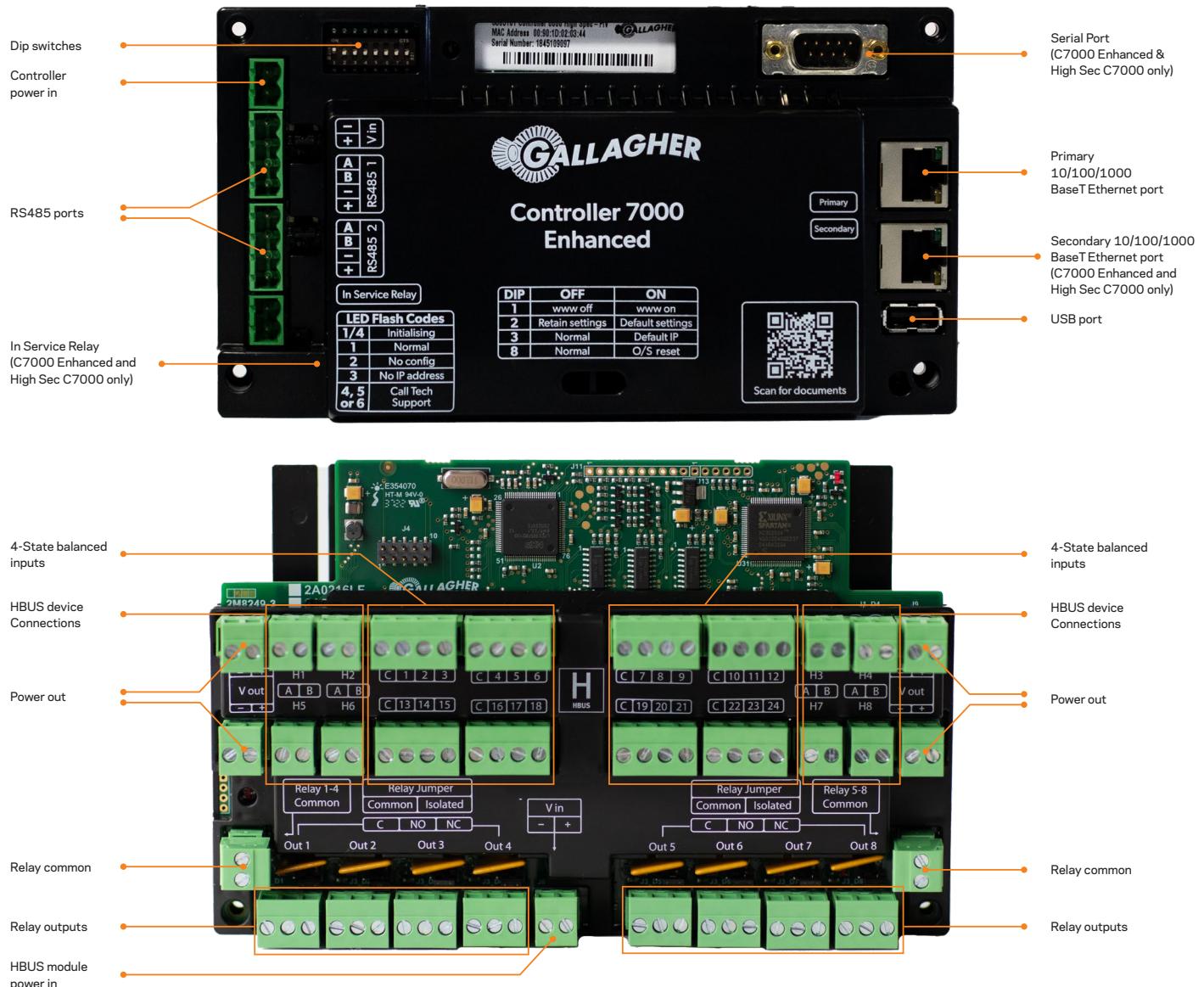
Field Device Features						
Maximum HBUS Devices per Wiring Run	80	80	80	80	80	80
Maximum HBUS Devices Wiring Run Length	500m	500m	500m	500m	500m	500m
Support for Daisy Chain Wiring of Field Devices	Yes	Yes	Yes	Yes	Yes	Yes
OSDP Reader Support	Yes	Yes	Yes	Yes	Yes	Yes
Customisable Reader Images	Yes	Yes	Yes	Yes	Yes	Yes
Keypad Triggered Events	Yes	Yes	Yes	Yes	Yes	Yes
Reader Mimic Panel Functionality	Yes	Yes	Yes	Yes	Yes	Yes
Custom Messages on Readers	Yes	Yes	Yes	Yes	Yes	Yes
Field Downloadable Code	Yes	Yes	Yes	Yes	Yes	Yes
End-of-line Encryption Module	No	Yes	No	No	No	Yes
Aperio Support	Yes	Yes	Yes	Yes	Yes	Yes
RSI/Schlage RS485 Support	Yes	Yes	Yes	Yes	Yes	Yes
Moduteq/MBus Support	Yes	Yes	Yes	Yes	Yes	Yes
GBUS Support *	Yes	Yes	No	No	No	No
Wiegand Support	With plug-in module, expander or HBUS door module	With plug-in module, expander or HBUS Door Module	Yes	With plug-in module or HBUS Door Module	With plug-in module or HBUS Door Module	With plug-in module or HBUS Door Module
Cardax IV Support	Yes - 8R/4R module or GBUS URI*	Yes - 8R/4R module or GBUS URI*	No	Yes - 8R/4R module	Yes - 8R/4R module	Yes - 8R/4R module

\* Please note GBUS is not supported from Command Centre v9.10 onwards.

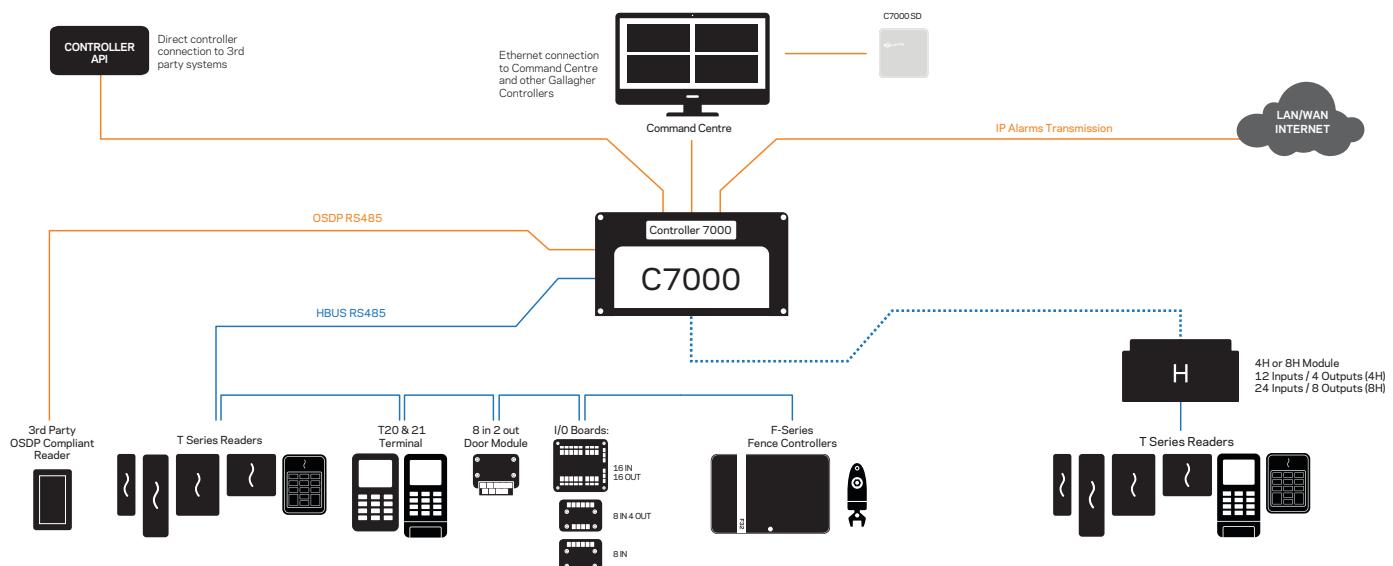
Supported Credential Types						
MIFARE DESFire	Yes	Yes	Yes	Yes	Yes	Yes
MIFARE Classic	Yes	Yes	Yes	Yes	Yes	Yes
MIFARE Plus	Yes	Yes	Yes	Yes	Yes	Yes
Mobile Credentials	Yes	Yes	Yes	Yes	Yes	Yes
125 kHz	Yes	Yes	Yes	Yes	Yes	Yes
PIV	No	Yes	No	No	No	Yes
PIV-I	No	Yes	No	No	No	Yes
TWIC	No	Yes	No	No	No	Yes
QR Codes	Yes	Yes	Yes	Yes	Yes	Yes



## Key features diagram of the Controller 7000 and 8H Module



## Controller 7000 System Diagram



## Technical Specifications

Product numbers					
<b>C400100</b>	Gallagher Controller 7000 Standard	<b>C400110</b>	-	<b>C400101</b>	Gallagher Controller 7000 Enhanced
<b>C400010</b>	Controller 7000 Single Door RS485	<b>C400011</b>	Controller 7000 Single Door Wiegand	<b>C400020</b>	Controller 7000 Single Door PoE+ RS485
					<b>C400021</b> Gallagher High Sec C7000
					Controller 7000 Single Door PoE+ Wiegand

Product numbers	
<b>Power</b>	Tamper Protection
	Optical wall and unit tampers
Voltage	13.6 v DC ±15%
<b>Environmental Limits</b>	Operating temperature
	-10 ° to +70 °c
	Humidity
	95% Non-condensing
<b>Software Compatibility</b>	Command Centre v9.0 or later
<b>Communications</b>	Ethernet network connection
	10/100 Ethernet Port Standard
	10/100/1000 Enhanced and High Sec
RS485 Device Communications (2 Ports)	256bit AES symmetric encryption for Controller to Server and Inter-Controller communications
<ul style="list-style-type: none"> <li>▪ HBUS</li> <li>▪ OSDP</li> <li>▪ SensorBUS (v9.20 MR2 or later)</li> <li>▪ Aperio</li> </ul>	
USB Support	1 x USB 2.0 port
TCP/IP Protocol	Maximum speed 1Mbit/s, 500m (1640ft) 115.2Kbit/s, dependent on cable type 115.2Kbit/s depend on cable type 19.2Kbit/s, 1000m max
<b>Standards compliance</b>	CE, RCM, UL, UKCA, FCC, IC Compliance and certification information is available on our support site or by contacting Gallagher
<b>Dimensions</b>	Height x width x depth
	100 x 180 x 42mm (3.9 x 7.1 x 1.7in)
Gallagher Mounting Footprint	1
<b>Additional Notes</b>	*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> ) † Note: Current measurements are indicative only and exclude external devices. Please refer to the Security Hub and product Installation Notes for more information such as detailed power supply and operating characteristics.



**Gallagher World Headquarters**

181 Kahikatea Drive, Melville, Hamilton 3204  
New Zealand

**Phone** +64 7 838 9800  
**Email** [security@gallagher.com](mailto:security@gallagher.com)



[security.gallagher.com](http://security.gallagher.com)

**Regional Offices**

Americas	+1 877 560 6308
Asia	+852 2946 9641
Australia	+61 3 9308 7722
India	+91 98 458 92920
Middle East	+971 4 566 5834
South Africa	+27 11 974 4740
United Kingdom / Europe	+44 2476 64 1234
Sweden	+46 8-720 00 19

**Disclaimer**

Please note that information contained in this document is intended for general information only. While every effort has been taken to ensure accuracy as at the date of the document, there may be errors or inaccuracies and specific details may be subject to change without notice.  
Copyright © Gallagher Group Limited.