

Controller 7000 Single Door

The Gallagher Controller 7000 Single Door (C7000 SD) is a powerful and network-connected PoE or non-PoE controller, providing a complete and flexible solution for your business expansion. Compatible with Command Centre v8.70 onwards.

Flexible, powerful control at the door

In addition to single door access control, the small but mighty C7000 SD is a discreet controller that can be utilized for system interfaces, alarm monitoring, perimeter security, and external device control. The controller is designed to support a variety of infrastructure environments, whether leveraging a building's structured network cabling and providing Power over Ethernet (PoE) or providing cost effective door control with a traditional power supply and battery backup arrangement.



Power over Ethernet ready

The Controller 7000 Single Door's Power over Ethernet variants remove the need for power supplies, batteries, cabinets and long expensive cable runs. The self-enclosed, tamper protected unit is designed to simply plug into ethernet and sit discretely on the wall above the door or in the ceiling space maximizing ease of installation and maintenance. An optional tamper protected conduit entry mounting block is available for when rear cable entry is not possible. The Controller 7000 Single Door supports PoE and PoE+ (recommended). This allows the controller to power a downstream lock, associated sensors whilst monitoring request to exit and break glass buttons. If desired, the controller can use PoE to charge a backup battery in case of power loss.

Taking cyber secure to new heights

The Controller 7000 Single Door is designed for the highest level of protection against cyber threats to networked devices. A secure element is installed on each controller providing dedicated hardware protection of cryptographic keys. They are then used to verify the integrity of device communications to the server and other connected devices. The controller's main processor, the NXP iMX8 microchip, is designed with cyber security at its heart. Gallagher has leveraged this processor to implement a Trusted Execution Environment (TEE) based on the ARM Platform Security Architecture. The TEE combines hardware and software device security, delivering unparalleled security to ensure the code running on the controller is genuine and has not been tampered with.



Key Features

- Complete solution for single door access control with multiple readers.
- Full support for intruder alarms in conjunction with up to 256 HBUS IO and a Gallagher T20.
- Power over Ethernet variant connects directly to a building's structured cabling. DC power variant available for when PoE is not suitable..
- Optional PoE+ battery charging for local power backup.
- Fully authenticated and encrypted connectivity with all other Gallagher Controllers and Gallagher devices on site.
- Support for centralised or distributed building wiring topologies.
- Onboard support for 6 inputs for all power, door, and alarm sensors. Note: only five inputs available on the Wiegand variants.
- PoE can provide up to 1A to drive a lock (recommend 1A total average to allow for power spikes).
- Onboard transistor relay can drive a siren or strobe. It can also be used as a second relay output by connecting the Gallagher Controller 7000 Single Door relay board.
- On board front and rear tampers for installation outside of a cabinet.
- Mounting plates, mounting block, and DIN rail adapters are available to provide flexible options for installations.
- High speed RS-485 connectivity and software updates to downstream devices.
- Gallagher Perimeter (HBUS) technologies supported.
- Support for Elevator Control.
- Support for integration directly with building management systems.
- Future High Security version will be available for sites with specific security and/or Government standards compliance needs.
- Controller based API support for direct controller communication with third-party systems.

Provides support for:

- 1 x door access control
- 2 million cardholders
- Storage for 1 million offline events
- Up to 80 Gallagher HBUS devices
- 256 alarm zones
- 2000 access groups

Business Policy Enforcement

The C7000 Single Door 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.

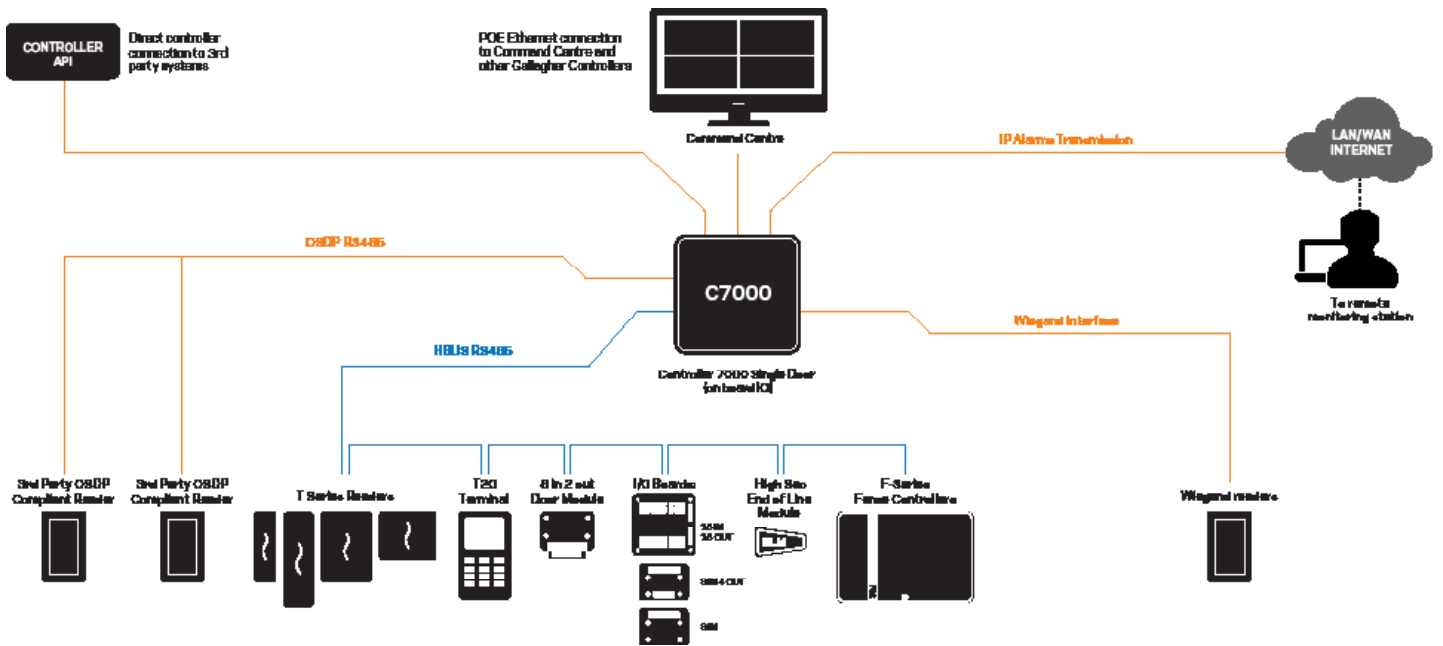
Controller 7000 Single Door variants

Controller 7000 Single Door, PoE+, RS485	Controller 7000 Single Door, PoE+, Wiegand	Controller 7000 Single Door, RS485	Controller 7000 Single Door, Wiegand
C7000 Single Door is powered via PoE+ (recommended) or PoE with UPS backup. Option to connect and charge a battery if required for power back up. Communicates via RS485 protocols such as HBUS and OSDP.	C7000 Single Door is powered via PoE+ (recommended) or PoE and utilises a sites UPS for power back up. Option to connect and charge a battery if required. Communicates to Wiegand readers only.	C7000 Single Door is powered via 12V with battery back-up. Communicates via RS485 protocols such as HBUS and OSDP.	C7000 Single Door is powered via 12V with battery back-up. Communicates to Wiegand readers only.

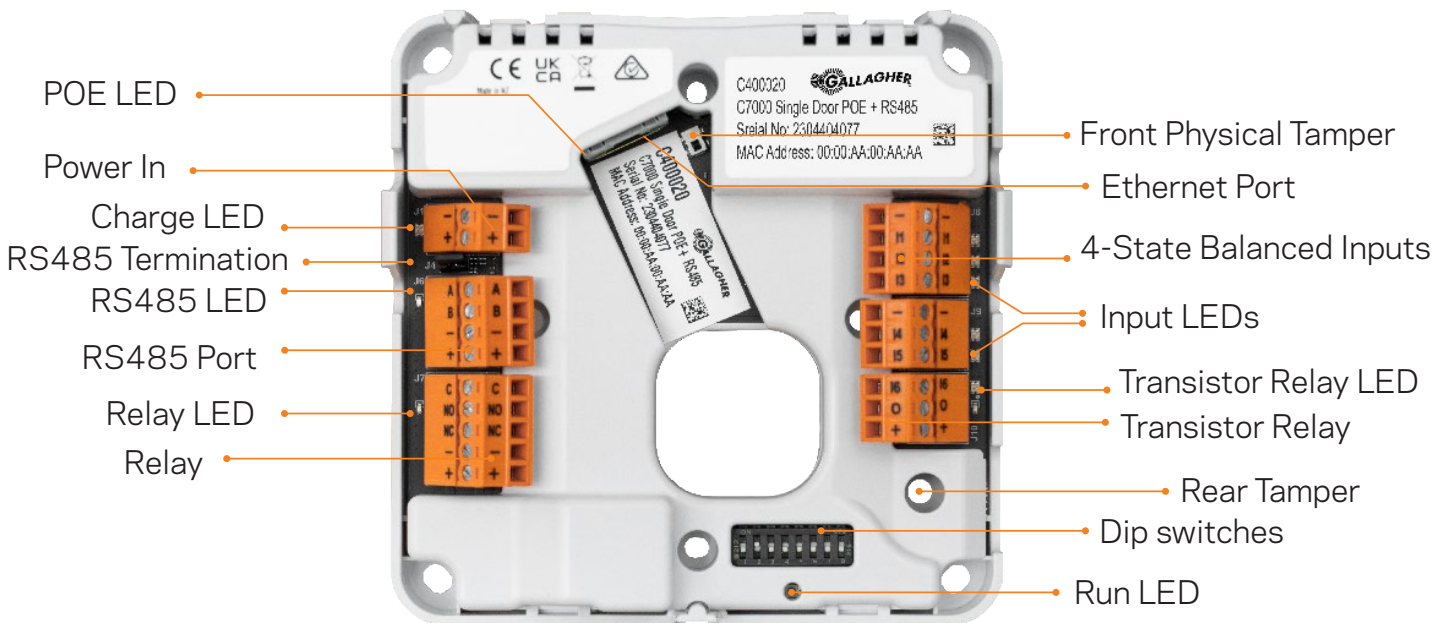
Controller 7000 Single Door variant overview

Feature	PoE+ RS485	PoE+ Wiegand	RS485	Wiegand
Doors supported	1	1	1	1
Elevators supported	10	10	10	10
Mobile Credential Support	✓		✓	
Ethernet 10/100 port	✓	✓	✓	✓
PoE+ Support	✓	✓		
Battery Charging	✓	✓		

Controller 7000 Single Door System Diagram



Key features of the Controller 7000 Single Door



Technical Specifications

Controller 7000 Single Door			
Tamper	Front and rear mechanical tampers, or tamper input for cabinet tampers		
Support for:	6 inputs, configurable to 4-state or 6-state	1 relay output plus one transistor output	One configurable RS485 port (HBUS by default)
DC Power	DC - 13.6 v DC±15%		
PoE+	(802.3at Type 2): Max power 25W 13.6V at 1.5A peak available to external devices	PoE battery charge 200mA	
PoE*	(802.3af or 802.3at Type 1): Max power 13W 13.6V at 0.6A peak available to external devices	PoE battery charge 200mA	
CPU Specs	1.2GHz ARM Cortex-A35 CPU	512MByte RAM running at 933MHz	4GByte solid state storage
*If PoE attacks are anticipated, it is recommended that a local battery back up is used.			
Communications	Standard	10/100 BaseT Ethernet Port	
	HBUS	1Mbit/s, 500m (1640ft)	
	OSDP **	Max 115.2Kbit/s, dependent on cable type	
	Aperio***	19.2Kbit/s, 1000m max	
	TCP/IP protocol	256bit AES* symmetric encryption for Controller to Server and Inter-Controller communications	
Software compatibility	Command Centre V8.70.2078 MR3 (or later), Command Centre V8.80.1025 MR1 (or later) and Command Centre V8.90 (or later).		
Standards Compliance	RCM, UKCA, CE, FCC, RoHS. Compliance certification information is available on our support site or by contacting Gallagher.		
Operating Temperature	-10°C to +50°C (14°F to +122°F)		
Humidity	85% or 95% non-condensing		
Dimensions (HxWxD)	115mm x 115mm x 33mm		
Offline event storage	1 Million Events		
Credential Support	2 million cardholders		

*This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)

** available version v8.90.

***available version v9.00

Product Numbers	
C400020	Controller 7000 Single Door, PoE+, RS485
C400021	Controller 7000 Single Door, PoE+, Wiegand
C400010	Controller 7000 Single Door, RS485
C400011	Controller 7000 Single Door, Wiegand
C400180	Mounting Plate, Single Door Controller 7000
C400900	Mounting Block, Single Door Controller 7000
C400181	DIN Rail Adapter, Single Door Controller 7000
C400182	DIN Rail Adapter, 1/4 - 1/2 Footprint Pack2
C400910	Relay Board, Single Door Controller 7000

Datasheet version & date: Version 6, last updated: 9 March

Live datasheet URL: <https://media.gallagher.com/m/691d7a2175081fe8/original/Controller-7000-Single-Door-Datasheet.pdf>

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