

# HBUS Modules

Gallagher 8H and 4H modules support star wiring of secure high-speed HBUS devices including T-Series Readers and the F-Series fence controllers. I/O connectivity is also provided for door and equipment monitoring.

## Speed

The HBUS protocol runs at a speed of 1Mb/s, substantially faster than most other RS485 based communications protocols. This increased speed improves the response times of HBUS devices.

## Connectivity

The 8H and 4H modules allow HBUS devices to be star-wired back to a secure controller cabinet. Star-wiring can remove the risk of one faulty connection taking down all downstream devices as on a daisy-chained run, and each HBUS port can support multiple HBUS devices.

Gallagher 8H and 4H modules have on-board inputs and outputs for door monitoring and control or general I/O functions. Gallagher 8H and 4H modules monitor and report the state of balanced inputs, and enforce decisions to switch output relays.

Four input states are monitored (using the default two 4k7 ohm resistors or optional configurable end-of-line resistances), including:

- Open
- Closed
- Short Circuit (Tamper)
- Open Circuit (Tamper)

Inputs on the HBUS Modules can be used to monitor:

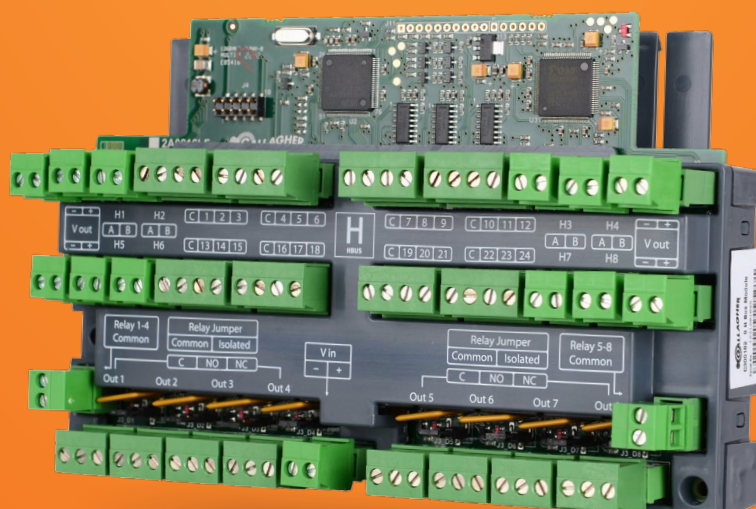
- Access controlled doors
- Intruder detection (i.e. passive, infra-red detectors, glass break detectors)
- Monitored doors
- Equipment alarms
- Any devices providing a clean switch contact

The on-board relays can control:

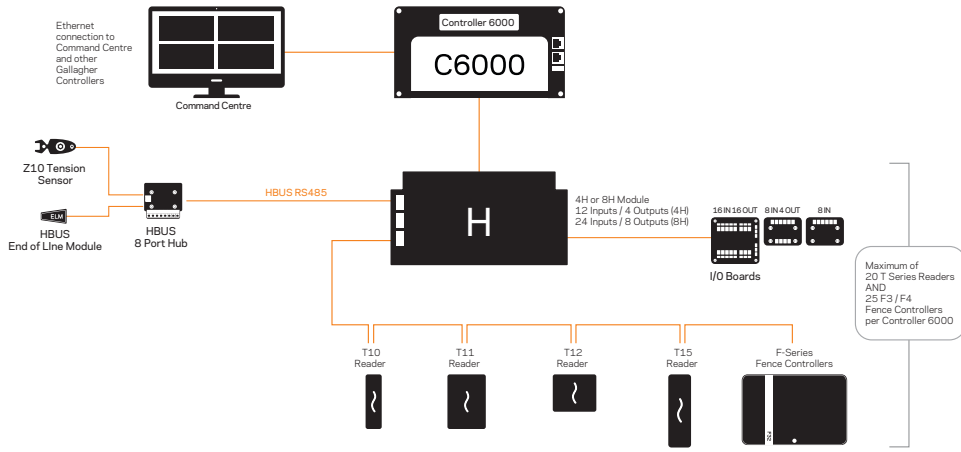
- Access controlled doors
- Alarm outputs, e.g. to activate sirens
- Time activated outputs, e.g. to switch on lighting or air conditioning

## Data protection

All communication between the Controller 6000 and its connected Gallagher HBUS devices are secured using industry leading authentication and encryption techniques. All HBUS devices maintain a heartbeat to alert the system should any device be taken offline and to protect against a wide range of potential attack methods.



# HBUS Module Connectivity



## Gallagher Cabinets



Two Gallagher Cabinets are available to accommodate the Gallagher Controllers and the HBUS Module:

- Gallagher Single Cabinet C200100
- Gallagher Dual Cabinet C200104 (Cool Grey), C200103 (Charcoal)

Refer to the Gallagher Cabinets data sheet for further information.

## Technical Specifications

Product numbers		
C300142	Gallagher 4H Module	
C300182	Gallagher 8H Module	
Gallagher HBUS Modules		
Product detail	Inputs	8H Module: 24 4H Module: 12
	Outputs	8H Module: 8 SPDT relays 4H Module: 4 SPDT relays
Power	Voltage	13.6 v DC±15%
	Current*	Via Gallagher Controller 6000 connector: 40mA Via HBUS Module power in - No relays: 30mA - 4 relays: 175mA - 8 relays: 315mA
Minimum requirements	Software	Gallagher Command Centre v7.05 or later
Environmental limits	Operating temperature	-10 to +70°C
	Humidity	95% Noncondensing
Standards compliance	FCC, CE, RCM, RoHS	Compliance and certification information is available on our support site or by contacting Gallagher
Additional notes	* If HBUS devices are connected, a maximum of 0.5 A per "V out" port is available. This additional current should be added to the Power In currents specified above.	

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3E2670 - 07/19