

Gallagher Readers T10, T11 & T12

Gallagher provides a range of Smart Card and multi technology readers for Gallagher access systems (formerly Cardax FT).

GALLAGHER READERS



The Gallagher Reader range features contactless proximity card readers for access control management in the Gallagher security integration platform.

READER DESIGN

Gallagher Readers are attractive card readers which provide fast, secure access by simply presenting a card toward the unit. With three aesthetically sleek form factors, Gallagher Readers are suited for a wide variety of installations. Mullion and Flushbox mounting variants cater for individual building decors and design requirements.

Available in both the standard black and white colour options with matching bezels, the Gallagher Reader range can also be customized with a premium range of striking satin silver or gold bezels to complement an extensive array of interior and exterior decors.

ENVIRONMENTALLY FRIENDLY

Gallagher Readers are RoHS compliant, eliminating lead components, and are designed for minimal power consumption.

DURABLE

Gallagher Readers feature substantial protection from environmental elements. The Readers are potted and have been

tested to high environmental tolerances. Gallagher Readers are rated up to the top IP68 rating for water and dust protection, and a high IK07 and IK08 rating for impact protection. Vandal cover options provide additional reader protection delivering up to an IK10 impact rating (pending final test results).

UNPARALLELED READER SECURITY

Gallagher Readers deliver unparalleled reader security:

- Custom site keys are supported when used with Mifare Plus and Mifare DESFire EV1 cards
- 'Heartbeat' monitoring ensures reader status can be monitored in real time
- Mifare Enhanced Security (MES) options are available to counter card cloning attempts
- Gallagher Readers use the proven 'Cardax IV' reader communications delivering enhanced reader security through secure and monitored communications data between the Reader and the Gallagher Controller. An alarm is raised at the Command Centre workstation if the Reader stops communicating with the field device.

SUPPORTED CARD TECHNOLOGIES

The Gallagher Readers support multiple card technologies.

Mifare Classic

Previously referred to as contactless Mifare Standard, Mifare Classic technology protects by employing read / write keys as an extra level of security.

Mifare Plus

Mifare Plus is a secure contactless smartcard format providing an ideal migration path for existing Mifare Classic card and reader users. The data storage on Mifare Plus cards remains similar to that of Mifare Classic cards, enabling sites to implement existing Mifare Classic application data onto the same sectors of a Mifare Plus card. Mifare Plus implements secure sector authentication to protect against card cracking and cloning, using strong AES 128 bit encryption keys.

Mifare DESFire EV1

Mifare DESFire is a secure and flexible smart card format which provides similar high card security to that of the Mifare Plus card format, with the addition of more flexible control of card data. The Gallagher Reader range supports the latest version of the Mifare DESFire format, DESFire EV1. This format implements the strong AES 128 bit data encryption standard amongst other security features, ensuring data security

and protection against card cracking and cloning.

125 KHZ PROXIMITY TECHNOLOGY (T11/ T12 MULTI TECHNOLOGY READERS ONLY)

125 kHz proximity technology is in use extensively around the world. The Gallagher T11 and T12 Multi Technology readers provide an option for sites to continue to use their existing 125 kHz encoded cards whilst implementing a strategy to migrate to their preferred Mifare smart card technology.

Importantly, any number of supported card formats may be active concurrently within the Gallagher system. This complete flexibility means it is possible for a site to integrate the use of Gallagher T11 and T12 Multi Technology Readers with existing third party 125 kHz proximity cards in the system.

BACKWARDS COMPATIBILITY

The Gallagher Reader range supports Cardax IV communications making the Readers backwardly compatible with all Cardax IV enabled hardware. The ability to use existing Cardax IV wiring means existing Gallagher sites can gain all the benefits of the new readers immediately. There is no need for existing Gallagher sites to upgrade their version of Gallagher Command Centre or Cardax IV enabled hardware.

ANCILLARY PRODUCTS

Vandal Covers

For susceptible and/or harsh industrial environments, Vandal Covers provide protection beyond the Gallagher Reader range environmental and impact ratings. Please refer to the Gallagher Cards, Keyfobs and Encoding datasheet for information on access token options.

Card Encoding

Encoding of Mifare Classic and Plus cards is supported through the Gallagher PhotoID and Encoding optional feature together with either the Gallagher Mifare USB Encoder or through a compatible card printer. Please refer to the Gallagher PhotoID & Encoding data sheet for more information.

Encoding of 125 kHz cards is supported through Gallagher Encoder III software together with the Gallagher Encoder (125 kHz).

Pre-encoded Card Service

Gallagher provides a card encoding service including the encoding of Mifare Classic, Plus and DESFire EV1 cards and 125 kHz cards, enabling sites to receive pre-encoded cards. Please discuss your requirements with your Gallagher Certified Channel Partner.

GALLAGHER READER BEZELS

Optional coloured bezels (the reader base and surrounding frame) are available for those wishing to customise their readers to suit a building's aesthetics. These come in packs of 10 bezels, available in both the standard black and white coloured plastics, and a premium range of painted silver and gold bezels.



GALLAGHER T10 READER



THE GALLAGHER T10 READER

The Gallagher T10 Reader is a slim mullion reader. It supports the following Mifare technologies:

- > Mifare Classic
- > Mifare Plus
- > Mifare DESFire EV1.

GALLAGHER T11 READER



THE GALLAGHER T11 READER

The Gallagher T11 Reader has been designed to be mounted on vertically oriented flush boxes. It is available in two variants:

- > As a Mifare reader supporting Mifare Classic, Mifare Plus and Mifare DESFire EV1
- > As a Multi Technology reader supporting the three Mifare technologies and 125kHz proximity technology.

GALLAGHER T12 READER

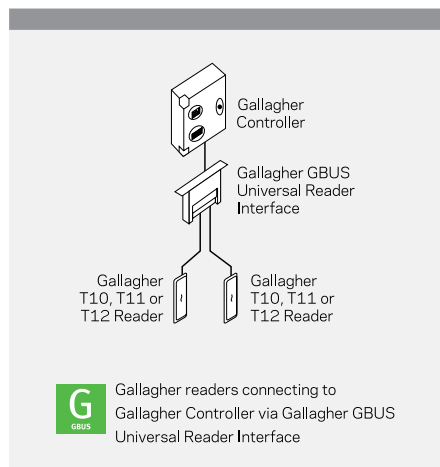
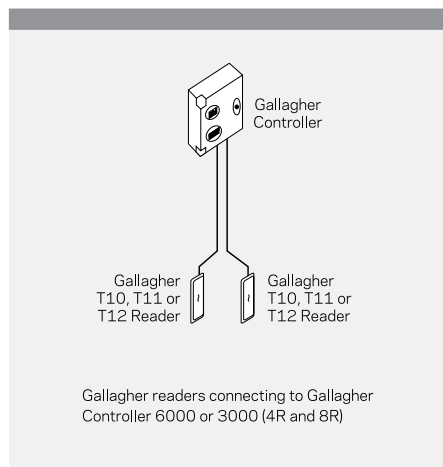


THE GALLAGHER T12 READER

The Gallagher T12 Reader has been designed to fit over wider BS (British Standard) flush boxes. It is also available in two variants:

- > As a Mifare reader supporting Mifare Classic, Mifare Plus and Mifare DESFire EV1
- > As a Multi Technology reader supporting the three Mifare technologies and 125kHz proximity technology.

CONNECTIVITY DIAGRAMS



Technical Specifications

GALLAGHER READER RANGE			JULY 2011
Dimensions - T10 Reader	Height x Width x Depth		115 mm x 35mm x 12mm
Dimensions - T11 Reader	Height x Width x Depth		115 mm x 70mm x 12mm
Dimensions - T12 Reader	Height x Width x Depth		86 mm x 86mm x 12mm
Card Technologies Supported	ISO1443a Mifare		Mifare Classic
			Mifare Plus
			Mifare DESFire
	125 kHz (Multi Technology readers only)		EV1
Communications Protocol			Cardax IV
Reading Distance (Maximum)*	T10 Reader	Mifare Classic	up to 50 mm
		Mifare Plus and DESFire	up to 25 mm
	T11/T12 Reader	Mifare Classic	up to 50 mm
		Mifare Plus and DESFire	up to 35 mm
		125 kHz	up to 85 mm
Power Supply	Operating Voltage Range at Reader		9 - 16 Vdc
	Nominal Current at 13.2 Vdc		75 mA Average
Cable Specifications †	Cable Type	Power & Data	Data Only
	CAT5E	100 m (330 ft)	200 m (650 ft)
	SEC472 (4 x 0.2 mm²)	100 m (330 ft)	200 m (650 ft)
	SEC4142 (4 x 0.4 mm²)	140 m (460 ft)	200 m (650 ft)
	BELDEN 8723 (22 AWG)	150 m (500 ft)	150 m (500 ft)
	BELDEN 9842 (24 AWG)	150 m (500 ft)	300 m (1000 ft)
Environmental Specifications	Temperature Range		-30° to + 70° C
	Humidity		95% non-condensing
	Environmental Protection - T10 Reader		IP68
	Impact Rating - T10/T12 Readers		IK07
	Impact Rating - T11 Reader		IK08
	UV Stability		Nil structural degradation for the life of the reader
	Results for T11 & T12 Readers and Vandal Covers †		
Compliance Standards	All equipment complies with FCC, CE and C-Tick approvals. Please contact Gallagher for the latest list of approvals.		   ACN 002132943

* Read range may be reduced when reader is mounted on metal surfaces.

+ Pending final test results

GALLAGHER SECURITY WORLD HEADQUARTERS

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

TEL: +64 7 838 9800

EMAIL: sales@security.gallagher.co

REGIONAL OFFICES

New Zealand.....+64 7 838 9800
Americas.....+1 888 430 0770
Asia.....+852 2910 7912
Australia.....+61 2 9412 4477
India.....+91 80 2661 1590
Middle East.....+9615 808728
South Africa.....+27 11 974 4740
United Kingdom / Europe.....+44 2476 64 1234

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