

# Gallagher Prox Readers (125 kHz)



The Gallagher Prox Readers are multimode readers supporting the widely available 125kHz proximity cards and keyfobs. This enables Gallagher Prox 125 kHz Readers to read both Cardax IV format, as well as a variety of Wiegand formats as provided by other reader manufacturers, such as Motorola, HID, Casi-Rusco and EM ASK.

Gallagher primarily supports its own proprietary format, using Amplitude Shift Keying (ASK) modulation. When connected in the Gallagher system, Gallagher Prox 125 kHz readers are also capable of reading the selected third party formats using Phase Shift Keying (PSK), and Frequency Shift Keying (FSK). Any number of the supported card formats may be active concurrently within the Gallagher access system, using Gallagher Prox 125 kHz Readers.

This complete flexibility means it is possible for a site to integrate the use of Gallagher readers with existing third party cards in the system. The Gallagher Prox 125 kHz Readers include the Prox and Prox Plus models.

## Gallagher Prox (125 khz):

- A **card only reader**, providing fast, secure access by passing a card transponder across the face of the unit.
- Available in a **hermetically sealed or "potted" version**, with an environmental rating of IP66.
- **Injection moulded housing** in a high strength, high impact resistant, engineering plastic alloy, available in grey/charcoal.
- **Dual colour LED** and speaker provide comprehensive visual and audible feedback to the user.
- The **optional wide mounting base** provides increased protection for the reader and allows for mounting over many standard international electrical flush boxes.

## Gallagher Prox Plus (125 khz) - additional features to the Prox:

- A **card plus PIN unit**, to be used where a higher level of security is required.
- An **LCD panel** provides user feedback icons making the system easy to use internationally.

## Data and Tamper Protection

The Gallagher Controllers are the intelligent units that make all access control decisions in the field. Tamper protection between the Gallagher Prox 125 kHz readers and the Gallagher Controllers is achieved by monitoring the communications data, based on a bi-directional protocol. An alarm will be raised at the Gallagher Command Centre workstation if the reader stops communicating. With the Cardax proprietary formats, enhanced data protection is achieved via:

- **Data encryption on the card**, adding a layer of security for card management.
- **Encoding of issue level and region code** in addition to facility code and card number, providing unique card data across global card databases
- **Using 8 bit error detection protocol**, ensuring that the reader correctly identifies the card being presented by the cardholder.
- **Data stored on the card is obfuscated** to minimize data tampering opportunities

## Ancillary Products

### Transponders

The transponder alternatives include card transponders, as well as a key fob option.

Three card transponders are available: An ISO standard dimension (CR80 credit card size) printable card, with or without Magstripe and a lower cost clamshell card.

These are electronically compatible to the industry standard cards as used by HID and Motorola/ Indala readers.

### Card Encoding

Used in conjunction with the Gallagher Encoder 125 kHz, Gallagher Encoder III is a user-friendly software package that enables the on-site encoding and re-encoding of Cardax IV proprietary format proximity cards.

For more information about ancillary products, please visit [security.gallagher.co](http://security.gallagher.co) or refer to the respective Gallagher data sheets:

- Gallagher Encoder III for encoding Cardax IV format cards;
- Cards, Keyfobs and Encoding.

GALLAGHER PROX (125 kHz)		JANUARY 2013
Card Formats Supported	Cardax IV Format Wiegand formats: 26/12 bit, 26/8 bit, 27/13 bit, 36/14 bit.	
	Using Command Centre Universal Card Format functionality – a variety of formats as provided by other reader manufacturers, such as: Motorola, HID, Casi-Rusco and EM ASK.	
	There is an unlimited number of possible card formats, and it is not possible to confirm all are supported. Any third party card format should be thoroughly tested for compatibility with these card readers. We may be able to assist by creating customisations to allow some card formats to be supported. Please contact Gallagher Security Technical Support if you require further assistance with card formats.	
Reading Distance	Up to 100 mm*	
	* Dependant on Installation and technology (FSK/ASK/PSK)	
Dimensions - Prox 125	Height: 134 mm, Width: 55 mm, Depth: 31 mm	
Dimensions - Prox 125 with optional cradle base	Height: 156 mm, Width: 100 mm, Depth: 31 mm	
Dimensions - Prox Plus 125	Height: 112 mm, Width: 113 mm, Depth: 28 mm	
Power Supply	Voltage	13.6V DC +/- 15%
	Current - Prox Reader	80 mA
	Current - Prox Plus Reader	150 mA
Temperature Range	-20° to +65°C (-4° - +149°F)	
Environmental Protection Rating	Potted Readers	IP66
	Unpotted Readers	IP54
Mounting Surface	Flat surface required	
Cable Specifications	4 core twisted unshielded 24 AWG (max nominal cap 120 pF/m)	0.2 mm <sup>2</sup>
Max. Cable Length	Universal Reader Interface	200 m
	Reader I/O Interface	200 m
	GBUS Universal Reader Interface	200 m
	Controller	200 m
Method of Transmission	FSK, ASK or PSK at 125 kHz	
Compliance Standards	All equipment complies with CE, C-Tick, UL and FCC approvals. Please contact Gallagher for the latest list of approvals.	

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