

Overview

The Transition™ Series Secure Sector Smart Card Readers represent one of the most versatile and secure access solutions on the market today. These contactless 13.56 MHz smart card readers are ideal for customers who want to move to secure credentials to protect badge ID data from counterfeiting. These readers come in three styles and colors, and feature diversified or fixed sector keys. Credentials with diversified sector keys are supplied by GE and feature a unique sector key for each credential—or, assuring customers a highly secure badge ID number. Alternatively, customers can select their own fixed sector keys to protect their badge ID numbers.

Capable of reading most MIFARE credentials, these readers output Wiegand or RS-485 communication.

All T-7XX models can be mounted on a single-gang electrical box* or directly on the wall and are weather resistant. The readers come in your choice of black, charcoal or light gray, and are visually similar to other Transition readers.

**Mullion model (T-700) requires an adaptor plate to mount on single-gang box.*

Standard Features

- Diversified sector keys provide unique sector key for each credential, thereby providing the customer a highly secure badge ID number
- Fixed sector keys provide customer with defined key sector to allow them to select a key sequence to protect their badge ID numbers; since customers select their own sector keys, they can select the source of their credentials
- Standard Wiegand data output can be used with GE controllers or other manufacturers' controllers
- Three-piece assembly includes mounting plate, electronics unit and cover; covers come in three colors: black, charcoal, and light gray
- Optical tamper switch can be used to alert system operators that reader has been removed from wall
- Accepts 10-16 VDC power input
- T-725 keypad is backlit and made of high impact clear Lexan® (polycarbonate) plastic; characters are silk-screened on sub-surface of keys to eliminate wear

Supported card technologies

- Supported card technologies
- MIFARE ISO 14443A
- Vicinity ISO 15693
- My-D ISO 15693
- FIPS 201 / PIV Type A or Type B
- HID® iCLASS® 13.56 MHz
- Vicinity (non My-D) ISO 15693
- DESFire ISO 14443

Secure Sector Smart Card Readers

Transition Series



Optimizing Any Environment

With an optimization technology that adjusts to a wide range of installation environments, Transition™ Smart Card readers are adaptable to just about any application. The readers' designs accommodate both metal and non-metal environments, and comes in a variety of wall and doorframe models to ensure card-holders experience consistent read-range performance for all types of installations and climates.

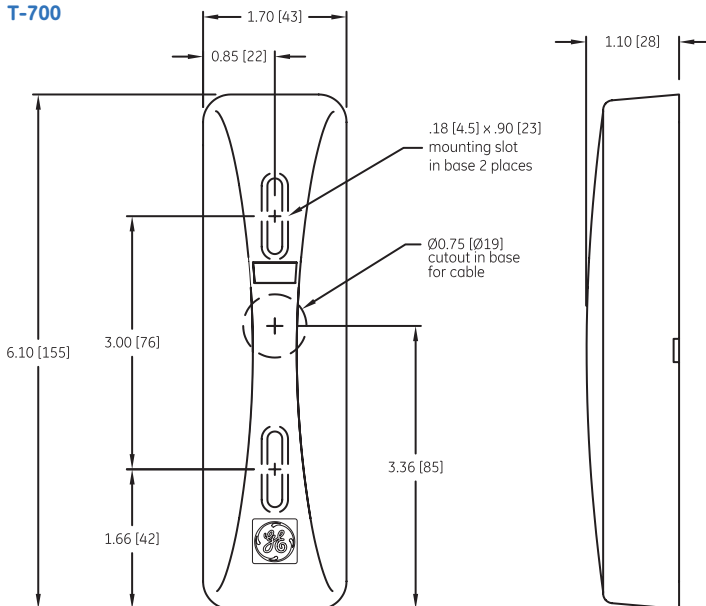
Versatile, Rugged and Backed for Life

Transition Smart Card readers are available with or without keypads, in compact housings that come in light gray, charcoal or black. Durable UV-resistant material inhibits discoloration in all types of indoor and outdoor conditions, including direct sunlight. The readers also feature advanced electronics and circuitry, and are sealed for protection against inclement weather. Combine all this protection with a lifetime warranty, and any organization can confidently expect years of exemplary reader performance.

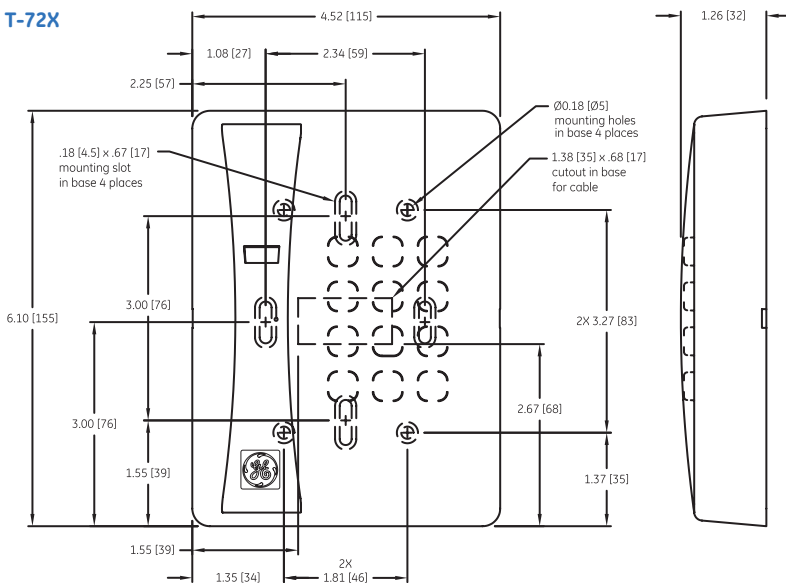
While the readers include powerful electronics for superior read-range performance with any technology, they also meet 10-16 VDC requirements and feature low-level power consumption. With their rugged design and impressive versatility, you can count on GE readers for years of consistent and reliable access-card performance.

Dimensional Diagrams

T-700



T-72X



Note: Measurements are in inches (in) with parenthesis numbers in millimeters (mm).

Specifications

Color options

Black, Light Gray, Charcoal

Agency approvals

- ETL 294
- UL 294
- CE mark
- FCC Part 15
- FIPS 201 (PIV)

Physical dimensions

- T-700: 1.7" x 6.1" x 1.1" (43 mm x 155 mm x 28 mm)
- T-72x: 4.52" x 6.1" x 1.26" (115 mm x 155 mm x 32 mm)

Read Range

	T-700	T-720	T-725
MIFARE & MIFARE/DESFIRE*	up to 1 in. (2.54 cm)		
Vicinity	up to 2 in. (5.08 cm)		
GSA PIV Data Model	up to 1 in. (2.54 cm)		

*Ultralight cards not supported

Note: Distances may vary depending on environment.

Operating temperature range

-31 to 149°F (-35 to 65°C)

Relative humidity

0 to 93% RH (noncondensing at 90°F, (32°C))

Cabling distance

200 ft. max. 22 AWG

300 ft. max. 20 AWG

500 ft. max. 18 AWG

Wiegand Output

18 AWG: 500 ft. (152 m)

22 AWG: 200 ft. (60 m)

Recommended cable

Minimum 22 AWG (18 AWG preferred) with 5 conductors, shielded

Feature and Format Specifications

Supported Credentials

Name	Type	Size	RF Technology	Default	Output
Diversified GE Keys	Mifare	1k, 4k	ISO 14443	On	26 bit or 55 bit
OESM fixed keys	Mifare	1k, 4k	ISO 14443	Off	26 bit or 55 bit
Diversified GE Keys	My-D	10 kBits	ISO 15693	On	26 bit or 55 bit
FIPS 201/PIV	US Gov.*	All	Type A/ Type B	Off	75 bit or 200 bit (GSA defined)
UID only	HID iClass	2k	13.56MHz	On	55 bit
UID only	Vicinity (non My-D)	N/A	ISO 15693	On	55 bit
UID only	DESFire	N/A	ISO 14443	On	40 bit

*Pending certification and release.

When enabled ISO 14443 UID read is disabled.

ISO Credential Compliance

- Mifare (ISO 1443A)
- Vicinity (ISO 15693)

Configuration Cards

The following predefined configuration cards are available from GE to assist you in setting up the listed functions for your reader.

Predefined configuration cards (no customer input required)

GE kit part #	Configuration card set	Function
521305001	Beeper off	Set beeper off
	Reset configuration to default	Reset configuration to default
521306001	LED green normal	Change LED colors
	Reset configuration to default	Reset configuration to default
521307001	Select 75-bit PIV format	Set PIV Wiegand format
	Select 200-bit PIV format	Set PIV Wiegand format
	Disable PIV	Disable PIV
	Enable PIV	Enable PIV
	Reset configuration to default	Reset configuration to default
521308001	5xx emulation enable	Read 13.56 MHz UID(s)
	Reset configuration to default	Reset configuration to default
521309001	Keypad configuration to 1 key, 8-bit complement	Sets keypad output to 1 key, 8-bit complement
	Keypad configuration to 4-bit burst	Sets keypad output to 4-bit burst

North America
T 888-GE-SECURITY
888-437-3287
F 561-998-6224
E rs-bctinfo@ge.com

Asia
T 852-2907-8108
F 852-2142-5063

Australia
T 61-3-9239-1200
F 61-3-9239-1299

Europe
T 32-2-725-11-20
F 32-2-721-40-47

Latin America
T 305-593-4301
F 305-593-4300

gesecurity.com

Specifications subject to change without notice.

ISO 9001:2000 - certified processes

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Ordering Information

Complete Assembly

Part Number	Description
430240006	T-700 Reader Complete Assembly, Electronics and Black Plastic, Mullion
430241006	T-720 Reader Complete Assembly, Electronics and Black Plastic, Mid-Range
430242006	T-725 Reader Complete Assembly, Electronics and Black Plastic, Mid-Range with Keypad

Electronics Modules

Part Number	Description
430240501	T-700 Reader, Electronics Module, Mullion, requires plastic housing
430241501	T-720 Reader, Electronics Module, Mid-Range, requires plastic housing
430242501	T-725 Reader, Electronics Module, Mid-Range with Keypad, requires plastic housing

Plastic Housings

Part Number	Description
520240004	T-700, Mullion, Light Gray plastic housing, Electronics Module required
520241004	T-720, Mid-Range, Light Gray plastic housing, Electronics Module required
520242004	T-725, Mid-Range with Keypad, Light Gray plastic housing, Electronics Module required
520240005	T-700, Mullion, Charcoal plastic housing, Electronics Module required
520241005	T-720, Mid-Range, Charcoal plastic housing, Electronics Module required
520242005	T-725, Mid-Range with Keypad, Charcoal plastic housing, Electronics Module required
520240006	T-700, Mullion, Black plastic housing, Electronics Module required
520241006	T-720, Mid-Range, Black plastic housing, Electronics Module required
520242006	T-725, Mid-Range with Keypad, Black plastic housing, Electronics Module required

Accessories

Part Number	Description
470677001	Mounting Plate, Light Gray, Mullion Transition reader on single-width USA electrical box
470677002	Mounting Plate, Black, Mullion Transition reader on single-width USA electrical box
470677003	Mounting Plate, Charcoal, Mullion Transition reader on single-width USA electrical box

