

# Electronic Access Control Catalogue

## Field Devices

Issue: September 2008



Make the most of your energy

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# TAC – the Single Source for all Your Electronic Access Needs

This catalogue presents the electronic access control portfolio offered by TAC's Field Device Product Division. The Division provides a single source for the field products our customers require to complete their system installations. By dealing with one trusted supplier, TAC's customers save time and cost, fully confident of the quality, performance, compatibility, and value for money of the items they buy.

The cards and card readers featured in the catalogue represent the day to day interface between TAC's access control systems and the users of those systems. The products are manufactured by leading industry specialists and provide a choice of different technologies to meet the diverse requirements of our customers.

For further details of the products and technologies featured in this catalogue, contact your local TAC sales office or visit the manufacturers' websites:

**HID:** [www.hidcorp.com](http://www.hidcorp.com)

**Idesco:** [www.idesco.fi](http://www.idesco.fi)

**Indala:** [www.indala.com](http://www.indala.com)

## GLOBAL LEADER IN BUILDING IT

TAC is a leading provider of building automation solutions based on Open Integrated Systems for Building IT. TAC's mission is to provide added value through building environment services for indoor climate, security and use of energy, delivered with advanced technology to end users and property owners throughout the world. TAC offers its customers a total capability in terms of supply of hardware, software, installation and support.

With over 80 years of experience in the HVAC, building automation and security arenas, TAC employs more than 5,000 people worldwide, with partners and branches in 80 countries. TAC's parent company, Schneider Electric, is the world leader in automation and electricity management, with over 90,000 employees worldwide, and operations in 130 countries.

TAC is the fastest growing, most innovative company in the Building Automation industry. We are at the forefront of growth because we deliver what our customers want, year after year, building after building.

**[www.tac.com](http://www.tac.com)**



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# Technology Overview

TAC sources access cards and reader products from HID, Indala, and Idesco as proven components within our control systems. A range of formats is available for each brand to ensure full compatibility with our Continuum and I/NET systems.

Several technologies can be employed depending on user requirements. These include the latest Smart Card and Biometric devices as well as the more traditional Wiegand, Proximity and Magnetic Stripe.

## SYSTEM COMPATIBILITY

It is important to ensure that readers and cards are selected from the same manufacturer for use on individual systems.

## SMART CARD TECHNOLOGY

A smart card is the size of a conventional credit card. It has an electronic microchip embedded in it, which stores data and programs offering advanced security features. There are 3 types of smart card: contact, contact-less and hybrid, the latter being a combination of any reading technology. TAC offers a contact-less card reader system based on HID's iCLASS® or the Phillips' MIFARE® industry standard.

## BIOMETRICS SYSTEMS

Biometrics Systems are being actively developed and will become more of an everyday item. These systems are superior due to the fact that they identify non transferable means of identifying people. This could be in the form of fingerprint or eye retina recognition.

## PROXIMITY TECHNOLOGY

Proximity Technology is a contactless system that uses radio frequency to communicate between the card/key fobs and the reader. The reader emits an r.f. magnetic field, that supplies energy to the card for the power required for the devices to transfer data. Reading distances between 20 mm and 1 metre can be achieved by use of different readers.

## WIEGAND TECHNOLOGY

Wiegand Technology is a mature standard and works by embedding small lengths of special wire into a card. This process offers a medium to high level of security. Wiegand cards take longer than most to produce, so consideration should be given to lead times when ordering.

## MAGNETIC STRIPE TECHNOLOGY

Magnetic Stripe Technology is the most basic and most traditional form of access control. Due to higher security needs, this technology is becoming less favoured. The basic operation relies on a magnetic stripe on the back of the card that gets swiped into a reader.

## BIT FORMAT

TAC offers four bit format options, and careful selection is required to ensure proper system compatibility. The industry standard format for proximity and Wiegand is 26 bit. The transmission of the information from the card reader to the TAC controller is referred to as a Wiegand output, so normally you might hear a card format described as 26 bit Wiegand. TAC offers a 37 bit format that offers a more secure access system. This format can only be obtained through TAC for use with Continuum. There is also an intermediate, 32 bit option that can be used with all TAC systems. TAC assigns a site code to each customer, so that the card access system is secure from unauthorized cards being used from any other system.

Bit Format	Continuum	I/NET	Comments
26 bit	√	√	Generic format for all systems
32 bit AC4+4ACC	√		For Continuum legacy systems only
32 bit I/NET		√	Standard I/NET Format
37 bit ACC	√		Standard Continuum Format

# 13.56MHz MIFARE® Smart Card Technology



A smart card is the size of a conventional credit card. It has an electronic microchip embedded in it which stores data and programmes offering advanced security features.

There are 3 types of smart card: contact, contact-less and hybrid. Hybrid Cards are a combination of any reading technology. TAC offers a contact-less card reader system based on HID's iCLASS® or the Phillips MIFARE® industry standard.

## Indala – Readers

The new Indala 13.56 MHz FlexSmart® reader family is compatible with INTRO (ISO 15693), MIFARE®, and DESFire™ technologies. Customers simply choose the Indala reader series with standard programming, or specify the data format and security level that meets their configuration requirements. Indala does the rest. Available in many standard or custom Wiegand formats, FlexSmart® readers provide a technically superior solution.



### MX 200 Series Slim MIFARE® Reader

MX 200 Slim MIFARE® Readers can be configured to read any MIFARE® or ISO15693 card serial number (CSN), or data within a secured MIFARE® card sector when programmed with a matching key. The MX 200 series of readers comply with the requirements of ISO14443A. It's the perfect choice for standard encrypted ID, data storage solutions and multiple applications. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-2404-100	MX Series Slim MIFARE® Reader (Arch), 26 bit	Black	0.5m Fly Lead	109 mm x 38 mm x 18 mm	9-16 VDC	15 mA Typical (75 mA Peak)	113 g
	654-2404-300	MX Series Slim MIFARE® Reader (Arch), 32 bit I/NET						
	654-2404-400	MX Series Slim MIFARE® Reader (Arch), 37 bit Continuum						
	654-2408-100	MX Series Slim MIFARE® Reader (Wave), 26 bit						
	654-2408-300	MX Series Slim MIFARE® Reader (Wave), 32 bit I/NET						
	654-2408-400	MX Series Slim MIFARE® Reader (Wave), 37 bit Continuum						

## MX 200 Series Square MIFARE® Readers

MX 200 Series Square MIFARE® Readers can be configured to read any MIFARE® or ISO15693 card serial number (CSN), or data within a secured MIFARE® card sector when programmed with a matching key. The MX 200 series of readers comply with the requirements of ISO14443A. The reader is ideal for installation onto a standard European back box. It's the perfect choice for standard encrypted ID, data storage solutions and multiple applications. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-2405-100	MX Series Square MIFARE® Reader (wallswitch EU 80*80 std), 26 bit	Black	Connector Block	86 mm x 86 mm x 30 mm	9–16 VDC	20 mA Typical (75 mA Peak)	160 g
	654-2405-300	MX Series Square MIFARE® Reader (wallswitch EU 80*80 std), 32 bit I/NET						
	654-2405-400	MX Series Square MIFARE® Reader (wallswitch EU 80*80 std), 37 bit Continuum						
	654-2406-100	MX Series Square MIFARE® Reader (wallswitch EU 80*80 pin), 26 bit						
	654-2406-300	MX Series Square MIFARE® Reader (wallswitch EU 80*80 pin), 32 bit I/NET						
	654-2406-400	MX Series Square MIFARE® Reader (wallswitch EU 80*80 pin), 37 bit Continuum						

## Indala – Cards

The contactless MIFARE® card can be used for diverse applications, such as access control, cashless vending, public transportation, airline ticketing, customer loyalty and photo ID cards. Sixteen securely separated files enable multiple applications and support future growth.


### MIFARE® 1K Adhesive Tag

The MIFARE® 1K Adhesive Tag can turn your plastic ID badge into a proximity credential. Effortlessly upgrade from magnetic stripe or barium ferrite proximity technology by attaching the tag to your existing card. The MIFARE® 1K Adhesive tag will also adhere to any non-metallic device, such as a mobile phone or PDA, to create an instant proximity badge. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-2451-000	MIFARE® 1K Adhesive Tag	Unprogrammed	Diameter 33 mm, Thickness 1.8 mm
	654-2451-100	MIFARE® 1K Adhesive Tag, Sector 15	26 bit	
	654-2451-300	MIFARE® 1K Adhesive Tag, Sector 15, I/NET	32 bit	
	654-2451-400	MIFARE® 1K Adhesive Tag, Sector 15, Continuum	37 bit	


### MIFARE® 4K Adhesive Tag

The MIFARE® 4K Adhesive Tag can turn your plastic ID badge into a proximity credential. Effortlessly upgrade from magnetic stripe or barium ferrite proximity technology by attaching the tag to your existing card. The MIFARE® 4K Adhesive tag will also adhere to any non-metallic device, such as a cell phone or PDA, to create an instant proximity badge. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-2452-000	MIFARE® 4K Adhesive Tag	Unprogrammed	Diameter 33 mm, Thickness 1.8 mm
	654-2452-100	MIFARE® 4K Adhesive Tag, Sector 15	26 bit	
	654-2452-300	MIFARE® 4K Adhesive Tag, Sector 15, I/NET	32 bit	
	654-2452-400	MIFARE® 4K Adhesive Tag, Sector 15, Continuum	37 bit	


### MIFARE® 1K ISO Card

The MIFARE® 1K ISO Card is a credit card thin access credential with nominal thickness of 0.76mm. The credential comes with a graphics quality surface on both sides of the card, and has the ability to contain multiple ID technologies in a single credential. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2453-000	MIFARE® 1K ISO Card	Unprogrammed	Graphics	0.76 mm
	654-2453-100	MIFARE® 1K ISO Card, Sector 15	26 bit		
	654-2453-300	MIFARE® 1K ISO Card, Sector 15, I/NET	32 bit		
	654-2453-400	MIFARE® 1K ISO Card, Sector 15, Continuum	37 bit		


### MIFARE® 4K ISO Card

The MIFARE® 4K ISO Card is a credit card thin access credential with nominal thickness of 0.76mm. The credential comes with a graphics quality surface on both sides of the card, and has the ability to contain multiple ID technologies in a single credential. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2454-000	MIFARE® 4K ISO Card	Unprogrammed	Graphics	0.76 mm
	654-2454-100	MIFARE® 4K ISO Card, Sector 15	26 bit		
	654-2454-300	MIFARE® 4K ISO Card, Sector 15, I/NET	32 bit		
	654-2454-400	MIFARE® 4K ISO Card, Sector 15, Continuum	37 bit		


### MIFARE® 1K ISO Card with Magnetic Stripe

The MIFARE® 1K ISO Card with Magnetic Stripe is a credit card thin access credential with nominal thickness of 0.76 mm. The credential comes with a graphics quality surface on both sides of the card, and has the ability to contain multiple ID technologies in a single credential. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2455-000	MIFARE® 1K ISO Card c/w Magnetic stripe	Unprogrammed	Graphics	0.76 mm
	654-2455-100	MIFARE® 1K ISO Card c/w Magnetic stripe , Sector 15	26 bit		
	654-2455-300	MIFARE® 1K ISO Card c/w Magnetic stripe , Sector 15, I/NET	32 bit		
	654-2455-400	MIFARE® 1K ISO Card c/w Magnetic stripe , Sector 15, Continuum	37 bit		

### MIFARE® 4K ISO Card with Magnetic Stripe

The MIFARE® 4K ISO Card with Magnetic Stripe is a credit card thin access credential with nominal thickness of 0.76 mm. The credential comes with a graphics quality surface on both sides of the card, and has the ability to contain multiple ID technologies in a single credential. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2456-000	MIFARE® 4K ISO Card c/w Magnetic stripe	Unprogrammed	Graphics	0.76 mm
	654-2456-100	MIFARE® 4K ISO Card c/w Magnetic stripe , Sector 15	26 bit		
	654-2456-300	MIFARE® 4K ISO Card c/w Magnetic stripe , Sector 15, I/NET	32 bit		
	654-2456-400	MIFARE® 4K ISO Card c/w Magnetic stripe , Sector 15, Continuum	37 bit		


### MIFARE® 1K Key Tag

The MIFARE® 1K Key Tag contemporary design enables it to be easily attached to a key ring, badge clip or badge lanyard. Built to withstand harsh operating environments, MIFARE® 1K Key Tag's rugged double-sealed construction also allows for customisation. By adding a company logo, the tag is ideally suited for vacation resorts, locker rooms, health spas, apartment buildings, club houses, as well as commercial office spaces and industrial applications where photo ID's are not required. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-2457-000	MIFARE® 1K Key Tag	Unprogrammed	44 mm x 30 mm x 6 mm
	654-2457-100	MIFARE® 1K Key Tag, Sector 15	26 bit	
	654-2457-300	MIFARE® 1K Key Tag, Sector 15, I/NET	32 bit	
	654-2457-400	MIFARE® 1K Key Tag, Sector 15, Continuum	37 bit	

### MIFARE® 4K Key Tag

The MIFARE® 4K Key Tag's contemporary design enables it to be easily attached to a key ring, badge clip or badge lanyard. Built to withstand harsh operating environments, the tag's double-sealed construction also allows for customisation. By adding a company logo, the tag is ideally suited for vacation resorts, locker rooms, health spas, apartment buildings, club houses, as well as commercial office spaces and industrial applications where photo ID's are not required. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.


Image	TAC-Part No.	Description	Coding	Dimensions
	654-2458-000	MIFARE® 4K Key Tag	Unprogrammed	44 mm x 30 mm x 6 mm
	654-2458-100	MIFARE® 4K Key Tag, Sector 15	26 bit	
	654-2458-300	MIFARE® 4K Key Tag, Sector 15, I/NET	32 bit	
	654-2458-400	MIFARE® 4K Key Tag, Sector 15, Continuum	37 bit	

## Idesco – Readers

Idesco readers are designed for reliable and secure access control, data collection and people identification in various environments. These multi-technology readers read the unique ID numbers of Philips MIFARE®, HID iCLASS® and most of the existing and forthcoming ISO15693 tags.


### Access 7C Reader

The Access 7C Basic Reader's vandal-resistant design guarantees that the reader can be used in the most demanding surroundings. The Basic housing is internationally registered and suitable for indoor and outdoor usage, and can even be installed directly onto metal surfaces without additional insulation. The Access 7C range of readers makes use of serial number technology (CSN) and this is provided in a 32 bit format.

Image	Part Number	Description	Colour	Physical Dimensions	Power Supply	Current requirements	Termination	Weight
	654-3401-000	Access 7C Reader (Black, 32 bit Serial No, 3m Cable, White Lens)	Black	110 mm x 43 mm x 24 mm	24 VDC (10-30 VDC)	100 mA max.	3m Flying Lead	244 g


### Access 7C Quattro Reader

The square format of the Access 7C Quattro Reader is designed for mounting directly onto any electrical back box. The mounting unit of the reader is equipped with installation holes; ideal for fixing to plaster walls or other surfaces. An elegant snap-on cover is placed on the mounting unit. The Access 7C range of readers makes use of serial number technology (CSN) provided in a 32 bit format.

Image	Part Number	Description	Colour	Physical Dimensions	Power Supply	Current requirements	Termination	Weight
	654-3402-000	Access 7C Quattro Reader (Black, 32 bit Serial No, 3m Cable)	Black	86 mm x 86 mm x 17 mm	24 VDC (10-30 VDC)	100 mA max.	3m Flying Lead	244 g


### Access 7C PIN

The Access 7C PIN improves security in access control by providing PIN code identification to be used together with an identification card. The keypad of the reader is based on EMFi foil technology. The EMFi foil senses the pressure changes on the active key area when pressed. There are no moving parts in the PIN pad, and due to this no maintenance is required. The Access 7C range of readers makes use of serial number technology (CSN) provided in a 32 bit format.

Image	Part Number	Description	Colour	Physical Dimensions	Power Supply	Current requirements	Termination	Weight
	654-3403-000	Access 7C PIN Reader (Black, 32 bit Serial No, 3M Cable, White Lens)	Black	138 mm x 44 mm x 24 mm	24 VDC (10-30 VDC)	100 mA max.	3m Flying Lead	244 g
	654-3404-000	Access 7C PIN Reader (Black, 32 bit Serial No, 3M Cable, White Lens, Backlit)						


### Access 8CMt

Access 8CMt readers are designed for reliable and secure access control, data collection and people identification in various environments. The Access 8CMt MIFARE® memory reader reads compatible application-specific data from one selected sector of the MIFARE® standard cards, and also supports MIFARE® multi-application cards. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3405-000	Access 8CMt Reader (All TAC-bit Formats, Sector 15, White Lense)	Black	3m Fly Lead	110 mm x 43 mm x 24 mm	24 VDC (10-30 VDC)	130 mA Max.	244 g


### Access 8CMt Quattro Reader

The Access 8CMt Quattro Reader is designed for mounting directly onto any electrical back box. The mounting unit of the reader is equipped with installation holes; ideal for fixing to plaster walls or other surfaces. An elegant snap-on cover is placed on the mounting unit. The Access 8CMt MIFARE® memory reader reads compatible application-specific data from one selected sector of the MIFARE® standard cards, and also supports MIFARE® multi-application cards. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3406-000	Access 8CMt Quattro Reader (All TAC- bit Formats, Sector 15)	Black	3m Fly Lead	86 mm x 86 mm x 17 mm	24 VDC (10-30 VDC)	130 mA max.	315 g


### Access 8CMt PIN Reader

The Access 8CMt PIN Reader improves security in access control by providing PIN code identification to be used together with an identification card. The keypad of the reader is based on EMFi foil technology. There are no moving parts in the PIN pad, and due to this no maintenance is required. The default MIFARE® sector used for TAC cards and readers is sector 15 unless otherwise requested.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3407-000	Access 8CMt PIN Reader (All TAC-bit Formats, Sector 15, White Lens)	Black	3m Fly Lead	138 mm x 44 mm x 24 mm	24 VDC (10-30 VDC)	130 mA max	325 g
	654-3408-000	Access 8CMt PIN Reader (All TAC-bit Formats, Sector 15, White Lens, Backlit)						


### Access Mfinger Biometric Reader

The Access Mfinger Biometric Reader is a high security biometric reader combining security features of the MIFARE® smart card technology and the user's individual and unique fingerprint. The reader compares a fingerprint stored in a MIFARE® smart card with the scanned fingerprint before transmitting data into the system. MIFARE® security keys protect the templates inside the card. The Mfinger reader makes use of serial number technology provided in a 32 bit format. Please note this Biometric reader must be used in combination with the Access 7C range of readers.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Power consumption	Weight
	654-3901-000	Access Mfinger Biometric Reader (Serial No, Keypad), 8 bit burst Wiegand	Black	Terminal strip	111 mm x 138 mm x 44 mm	12-24 VDC	< 5 W	560 g

### Access Mfinger Biometric Smart Coder

With the Access Mfinger Biometric Smart Coder you can easily enrol fingerprints, configure your Access Mfinger readers and set security privileges for each user. The Access Mfinger smart coder kit includes management software, desktop reader and a desktop scanner.


Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Power consumption	Weight
	654-3902-000	Access Mfinger Biometric Smart Coder (Serial No, Keypad), 8 bit burst Wiegand	Black	Terminal strip	111 mm x 138 mm x 44 mm	12-24 VDC	< 5 W	500 g

## Idesco – Cards

Idesco offers a wide range of 13.56Mhz tags and cards. Typical applications for these products include access control, time and attendance and asset marking.

### MIFARE® 1K Card CM

The PVC MIFARE® 1K Card CM has good printability with thermal transfer and dye-sublimation printers. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-3450-000	MIFARE® 1K Card CM, Serial Number	Unprogrammed	Graphics	1 mm
	654-3450-100	MIFARE® 1K Card CM, Sector 15	26 bit		
	654-3450-300	MIFARE® 1K Card CM, Sector 15, I/NET	32 bit		
	654-3450-400	MIFARE® 1K Card CM, Sector 15, Continuum	37 bit		


### MIFARE® 1K 2402 Coin Tag

The epoxy laminated MIFARE® 1K 2402 Coin Tag is easy to fix in a convenient leather key ring. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-3451-000	MIFARE® 1K 2402 Coin Tag, Serial Number	Unprogrammed	Radius 12 mm Thickness 2 mm
	654-3451-100	MIFARE® 1K 2402 Coin Tag, Sector 15	26 bit	
	654-3451-300	MIFARE® 1K 2402 Coin Tag, Sector 15, I/NET	32 bit	
	654-3451-400	MIFARE® 1K 2402 Coin Tag, Sector 15, Continuum	37 bit	

### Leather Coin Tag Key ring


To be used with the Mifare 1K 2402 Coin Tags.

Image	TAC-Part No.	Description	Dimensions
	654-3352-000	Leather Coin Tag Key ring, Serial No, Format	63 mm x 35 mm

## Idesco – Cards


### MIFARE® 1K Sail Tag

The MIFARE® 1K Sail Tag key ring is very robust and beautifully designed for everyday use. The default MIFARE® sector used for TAC cards and readers is sector 15, unless otherwise requested.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-3452-000	MIFARE® 1K Sail Tag, Serial Number	Unprogrammed	55 mm x 30 mm
	654-3452-100	MIFARE® 1K Sail Tag, Sector 15,	26 bit	
	654-3452-300	MIFARE® 1K Sail Tag, Sector 15, I/NET	32 bit	
	654-3452-400	MIFARE® 1K Sail Tag, Sector 15, Continuum	37 bit	

### MIFARE® 1K MFinger Card

A Fingerprint template is stored on the MIFARE® 1K MFinger Card making it possible to store two fingerprint templates per user on the 1K card.

Image	TAC-Part No.	Description	Coding	Thickness
	654-3950-000	MIFARE® 1K MFinger Card, Serial Number, Finger Template on Card	Unprogrammed	1 mm

# 13.56MHz iCLASS® Technology




iCLASS® smart readers and cards make access control more powerful, more versatile and offer enhanced security through data encryption and mutual authentication between the reader and cards. iCLASS® readers are user-friendly, delivering the same convenience and reliability of HID's Prox technology.

## HID – Readers

These readers support FIPS 201 PIV (Personal Identification Verification). Fully compliant iCLASS® contactless smart card readers are available to output the FASC-N (Federal Agency Smart Credential Number) in multiple configurations, providing the versatility to support both existing and new access control systems. Standard communication protocols make it easy to replace existing access control card readers with HID FIPS 201 compliant card readers.


### R10 Read Only Reader

The R10 Read Only Reader's slim design is perfect for metal mullions or any other space-limited installation, providing a standard Wiegand output, suitable for all TAC access control systems. The R10 offers the ability to read 32 bit MIFARE® serial numbers, and allows encrypted data transfer between the card and the reader through the use of secure algorithms.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1501-000	R10 read only Reader	Black	0.5m Fly Lead	48 mm x 40 mm x 8 mm	10-16 VDC	Ave: 80 mA Peak: 225 mA @12V	91 g


### R30 EU Sized Read Only Reader

The R30 EU Sized Read Only Reader is designed to cover 80 mm x 80 mm square European back boxes, with slotted mounting plate, and also provides for Asian back box spacing. The R30 provides a standard Wiegand output, suitable for all TAC access control systems. The R30 offers the ability to read 32 bit MIFARE® serial numbers. Allows encrypted data transfer between the card and the reader through the use of secure algorithms.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1502-000	R30 EU sized read only Reader	Black	0.5m Fly Lead	84 mm x 84 mm x 19 mm	10-16 VDC	Ave: 80 mA Peak: 225 mA @12V	113 g


### R40 US Sized Read Only Reader

The R40 US Sized Read Only Reader is designed to mount and cover single gang switch boxes, primarily used in the United States, and offers the ability to read 32 bit MIFARE® serial numbers. Allows encrypted data transfer between the card and the reader through the use of secure algorithms.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1502-000	R30 EU sized read only Reader	Black	0.5m Fly Lead	84 mm x 84 mm x 19 mm	10-16 VDC	Ave: 80 mA, 225 mA peak@12V.	250 g


### RK40 Read Only Keypad Reader

The RK40 Read Only Keypad Reader is designed to mount and cover single gang switch boxes and includes a slotted mounting plate for European and Asian back box spacing. This device also offers the ability to read 32 bit MIFARE® serial numbers and includes a heavy duty keypad. It allows encrypted data transfer between the card and the reader through the use of secure algorithms.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1504-000	RK40 read only keypad Reader, 8 bit burst Wiegand	Black	Terminal Blocks	84 mm x 122 mm x 23 mm	10-16 VDC	Ave: 72 mA Peak: 244 mA @12V.	283 g


### RWKL550 Read/Write LCD Keypad Reader

The RWKL550 Read/Write LCD Keypad Reader uses 13.56 MHz contactless smart card technology. BioCLASS products provide users with new options for supporting multi-authentication of identity. Uses a personal identification number (PIN) number along with a contactless card presentation.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1505-000	RWKL550 read/write LCD keypad Reader, 8 bit burst	Black	Terminal Blocks	147 mm x 96 mm x 30 mm	9-12 VDC	250 mA Standby / 450 mA peak	218 g


### RWKL575 Bioclass Fingerprint Reader

The RWKL575 Bioclass Fingerprint Reader uses 13.56 MHz contactless smart card technology. BioCLASS products provide users with new options for supporting multi-authentication of identity. Combines a contactless card presentation with a fingerprint biometric.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1906-000	RWKL575 Bioclass Fingerprint Reader, 8 bit burst	Black	Terminal Blocks	203 mm x 96 mm x 35 mm	9-12 VDC	350 mA Standby / 520 mA peak,	283 g

### CP575 Bioclass Enrollment Kit

The iCLASS® CP575A Enrollment Kit is designed for on-site programming of access control data, Personal Identification Number (PIN) codes, and user data onto HID iCLASS® cards. Allows HID proximity formats, keypad PIN codes and user data fields to be programmed directly into iCLASS® contactless smart cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-1907-000	CP575 Bioclass Enrollment Kit	Black	Terminal Block	211 mm x 130 mm x 113 mm	12 VDC	350 mA Standby / 520 mA peak	27 g

## HID – Cards

HID supports 13.56 MHz iCLASS® read/write contactless smart card technology in various combinations with magnetic stripe and contact smart chip module.

### 2k/2 Tag

The 2k/2 Tag provides the convenience of HID's iCLASS® contactless read/write technology in a small disk-shaped package. Allows users to easily and cost-effectively turn a plastic ID badge or contact smart chip card into a contactless smart card. This self-adhesive tag attaches easily to mobile phones, PDAs, and other non-metallic objects. All 2K bit (256 bytes) iCLASS® credentials are available in two application area configuration only.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1551-000	2k/2 Sticky Tag	unprogrammed	Diameter 33 mm, Thickness 1.8 mm
	654-1551-100	2k/2 Sticky Tag	26 bit	
	654-1551-300	2k/2 Sticky Tag, I/NET	32 bit I/NET	
	654-1551-400	2k/2 Sticky Tag, Continuum	37 bit	


### 16k/16 Tag

The 16k/16 Tag provides the convenience of HID's iCLASS® contactless read/write technology in a small disk-shaped package. Allows users to easily and cost-effectively turn a plastic ID badge or contact smart chip card into a contactless smart card. Attaches easily to mobile phones, PDAs, and other non-metallic objects. All 16K bit (2k bytes) iCLASS® credentials are offered in sixteen application area configuration only.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1552-000	16k/16 Sticky Tag	unprogrammed	Diameter 33 cm, Thickness 1.8 mm
	654-1552-100	16k/16 Sticky Tag	26 bit	
	654-1552-300	16k/16 Sticky Tag, I/NET	32 bit I/NET	
	654-1552-400	16k/16 Sticky Tag, Continuum	37 bit	


## 2k/2 Card

The iCLASS® 2k/2 Card offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID. Meets ISO standards for thickness for use with direct image and thermal transfer printers. All 2K bit (256 bytes) iCLASS® credentials are available in two application area configuration only.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1553-000	2k/2 Card	unprogrammed	Graphics	0.84 mm
	654-1553-100	2k/2 Card	26 bit		
	654-1553-300	2k/2 Card, I/NET	32 bit		
	654-1553-400	2k/2 Card, Continuum	37 bit		


## 16k/16 Card

The iCLASS® 16k/16 Card offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID. Meets ISO standards for thickness for use with direct image and thermal transfer printers. All 16K bit (2k bytes) iCLASS® credentials are offered in sixteen application area configuration only.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1554-000	16k/16 Card	unprogrammed	Graphics	0.84 mm
	654-1554-100	16k/16 Card	26 bit		
	654-1554-300	16k/16 Card, I/NET	32 bit		
	654-1554-400	16k/16 Card, Continuum	37 bit		


## 2k/2 iCLASS®/Prox Card

The 2k/2 iCLASS®/Prox Card combines iCLASS® read/write technology and HID 125 kHz proximity technology in a single ISO standard thickness card. This enables contactless smart card applications to be added to an existing HID proximity technology access control system. Offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID. All 2K bit (256 bytes) iCLASS® credentials are available in two application area configuration only.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1555-000	2k/2 iCLASS®/Prox Card	unprogrammed	Graphics	0.84 mm
	654-1555-100	2k/2 iCLASS®/Prox Card	26 bit		
	654-1555-300	2k/2 iCLASS®/Prox Card, I/NET	32 bit		
	654-1555-400	2k/2 iCLASS®/Prox Card, Continuum	37 bit		


### 16k/16 iCLASS®/Prox Card

The 16k/16 iCLASS®/Prox Card combines iCLASS® read/write technology and HID 125 kHz proximity technology in a single ISO standard thickness card. This enables contactless smart card applications to be added to an existing HID proximity technology access control system. Offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID. All 16K bit (2k bytes) iCLASS® credentials are offered in sixteen application area configuration only.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1556-000	16k/16 iCLASS®/Prox Card	unprogrammed	Graphics	0.84 mm
	654-1556-100	16k/16 iCLASS®/Prox Card	26 bit		
	654-1556-300	16k/16 iCLASS®/Prox Card, I/NET	32 bit		
	654-1556-400	16k/16 iCLASS®/Prox Card, Continuum	37 bit		


### 2k/2 Key Fob

The 2k/2 Key Fob incorporates iCLASS® contactless read/write technology into a convenient device approximately the size of an automotive key. Molded plastic enclosure provides durability in harsh environments. Provides an external number for easy identification and control. Can be placed on a key ring or clipped to a lanyard for convenient entry. All 2K bit (256 bytes) iCLASS® credentials are available in two application area configuration only.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1557-000	2k/2 Key Fob	unprogrammed	3.4 mm x 32 mm x 38 mm
	654-1557-100	2k/2 Key Fob	26 bit	
	654-1557-300	2k/2 Key Fob, I/NET	32 bit	
	654-1557-400	2k/2 Key Fob, Continuum	37 bit	

### 16k/16 Key Fob

The 16k/16 Key Fob incorporates iCLASS® contactless read/write technology into a convenient device approximately the size of an automotive key. Molded plastic enclosure provides durability in harsh environments. Provides an external number for easy identification and control. Can be placed on a key ring or clipped to a lanyard for convenient entry. All 16K bit (2k bytes) iCLASS® credentials are offered in sixteen application area configuration only.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1558-000	16k/16 Key Fob	unprogrammed	3.4 mm x 32 mm x 38 mm
	654-1558-100	16k/16 Key Fob	26 bit	
	654-1558-300	16k/16 Key Fob, I/NET	32 bit	
	654-1558-400	16k/16 Key Fob, Continuum	37 bit	

# Proximity Technology

Proximity Technology is a contactless system that uses radio frequency to communicate between the card/keyfobs and the reader. The reader emits an r.f. magnetic field that supplies energy to the card for the power required for the devices to transfer data. Reading distances between 20 mm and 1 metre can be achieved by use of different readers.




## HID – Readers

The HID line of proximity readers offers highly reliable operation with consistent read range and performance. The units read multiple Wiegand formats and every model is designed for both indoor and outdoor use. All models provide a standard multi-colour LED with internal or host control and a standard audible read indicator that is on/off selectable.


### ProxPoint Plus Reader

The ProxPoint Plus Reader offers a compact and economical solution for most standard access control requirements. Its potted electronics are ideal for both indoor and outdoor applications. The reader is fully compatible with all TAC access control systems and suitable for all TAC proprietary bit formats. These readers accept a supply of 5-16 VDC and they have a read range of 25 to 75 mm.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1301-000	ProxPoint Plus Reader	Grey	0.5m Fly Lead	80 mm x 43 mm x 17 mm	5-16 VDC	Average 30 mA, Peak 75 mA	75 g
	654-1302-000		Beige					
	654-1303-000		Black					
	654-1304-000		White					


### MiniProx Reader

The MiniProx Reader boasts an epoxy sealed, slim design that allows the reader to be mounted indoor or out, even directly on metal with no change in read range performance. Accepts 5-16 volts and has a maximum read range of 100 to 140 mm.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1305-000	MiniProx Reader	Grey	0.5m Fly Lead	152 mm x 43 mm x 19 mm	5-16 VDC	Average 20 mA, Peak 110 mA @ 12VDC.	108 g
	654-1306-000		Beige					
	654-1307-000		Grey	Terminal Strip				
	654-1308-000		Beige					


### Prox80 Reader

The Prox80 Reader is an 80 mm square reader designed to mount directly onto European single-gang electrical back boxes. With a three-piece, weatherproof potted enclosure and long flying lead of 2.7m, the Prox 80 is easily installed, accepts 5-16 VDC and provides a maximum read range of 37 to 140 mm. The reader is fully compatible with all TAC access control systems.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1309-000	Prox80 Reader	Grey	2.7m Fly Lead	80 mm x 80 mm x 20 mm	5-16 VDC	Average 30 mA, Peak 110mA @ 5 VDC; Average 20 mA, Peak 115 mA @ 12 VDC	63 g
	654-1310-000		White					


### ThinLine II Reader

The ThinLine II Reader provides the same performance and reliability as the MiniProx but with a low profile appearance. This reader can be mounted directly on metal with minimal impact on the read range performance. As with the MiniProx, the ThinLine II accepts 5-16 volts and a maximum read range of 100 to 140 mm.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1311-000	ThinLine II Reader	Beige	0.45m Fly Lead	11.9 mm x 76 mm x 17 mm	5-16 VDC	Average 20 mA, Peak 115 mA @ 12 VDC.	94 g
	654-1312-000		White					
	654-1313-000		Black					
	654-1314-000		Grey					


### ProxPro Reader Without Keypad

The ProxPro Reader Without Keypad combines all the electronics usually found in two separate packages. Ideal for medium range applications, the ProxPro offers high reliability, consistent read range characteristics and low power consumption. It is available with an optional, integrated, weather resistant keypad (see next section) offering an additional level of security by allowing the use of a personal identification number (PIN). Maximum read range of 76 mm to 230 mm.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1315-000	ProxPro Reader without Keypad	Grey	Terminals	127 mm x 127 mm x 25 mm	10-29 VDC	Average 100 mA, Peak 120 mA @ 24 VDC	336 g
	654-1316-000		Beige					


### ProxPro Reader With Keypad

The ProxPro Reader With Keypad combines all the electronics usually found in two separate packages. Ideal for medium range applications, the ProxPro offers high reliability, consistent read range characteristics and low power consumption. It is available with an optional, integrated, weather resistant keypad offering an additional level of security by allowing the use of a personal identification number (PIN). The keypad interfaces with the host system either by sending the data over the data output lines or via a direct connection to the host keypad interface. Maximum read range: 76 mm to 230 mm.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1317-000	ProxPro with Keypad, 8bit burst Wiegand	Grey	Terminals	127 mm x 127 mm x 25 mm	10-28.5 VDC	Average 100 mA Peak 120 mA @ 24 VDC	336 g
	654-1318-000		Beige					
	654-1319-000	ProxPro with Keypad, 3*4 matrix Wiegand	Grey					
	654-1320-000		Beige					

### MaxiProx Reader

The MaxiProx Reader is ideal for long range applications. New signal processing techniques incorporated in this reader provide a high tolerance to burst and other transient types of ambient RF interference. This makes the MaxiProx ideal for installations incorporating parking control, or where special consideration is needed to facilitate access to physically challenging environments. Power requirements are 12 or 24VDC and the unit interface with all existing Wiegand protocol access control systems. Maximum read range: 230 mm to 760 mm.


Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1321-000	MaxiProx Reader	Grey	Terminals	305 mm x 305 mm x 25 mm	12 or 24 VDC	Average 200 mA, Peak 700 mA @ 12VDC; Average 260 mA, Peak 1.2 A @ 24 VDC.	1.4 kg

## HID – Cards

The HID line of Proximity Cards are housed in a thin, durable package approximately the size of a credit card. The cards are strong and flexible and therefore highly resistant to cracking and breaking.


### MicroProx Sticky Tag

The MicroProx Sticky Tag incorporates proximity technology into a small disc-shaped self-adhesive transponder. It provides a seamless upgrade from Wiegand swipe or magnetic stripe technologies, ideal for dual systems applications and offers great flexibility. Compatible with all HID proximity readers, and has a typical maximum read range of 51 to 114 mm.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1350-000	MicroProx Sticky Tag (Grey)	Unprogrammed	Diameter 33 mm Thickness 1.78 mm
	654-1350-100	MicroProx Sticky Tag (Grey)	26 bit	
	654-1350-200	MicroProx Sticky Tag (Grey), AC 4+4, Continuum	32 bit	
	654-1350-300	MicroProx Sticky Tag (Grey), I/NET	32 bit	
	654-1350-400	MicroProx Sticky Tag (Grey), Continuum	37 bit	


### ProxCARD II

The ProxCARD II incorporates radio frequency identification electronics into a cost-effective, durable polycarbonate package the size of a credit card. Thin and flexible enough to be carried in a wallet, the ProxCARD II replaces the thick, rigid cards previously associated with proximity technology. Complete with a vertical slot punch and external card numbering. These cards are not suitable for direct image printing.

Image	TAC-Part No.	Description	Coding	Thickness
	654-1351-000	ProxCARD II, prox card	Unprogrammed	1.8 mm
	654-1351-100	ProxCARD II, prox card	26 bit	
	654-1351-200	ProxCARD II, prox card, AC 4+4, Continuum	32 bit	
	654-1351-300	ProxCARD II, prox card, I/NET	32 bit	
	654-1351-400	ProxCARD II, prox card, Continuum	37 bit	


### IsoProx II

The ultra-thin IsoProx II card offers proximity technology and photo identification on a single access control card. A photo ID can be printed directly onto the card using a direct image printer.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1352-000	IsoProx II prox card	Unprogrammed	Graphics	0.84 mm
	654-1352-100	IsoProx II prox card	26 bit		
	654-1352-200	IsoProx II prox card, AC 4+4, Continuum	32 bit		
	654-1352-300	IsoProx II prox card, I/NET	32 bit		
	654-1352-400	IsoProx II prox card, Continuum	37 bit		


### Smart IsoProx II

The Smart ISOProx II card meets requirements for proximity access control, network access, data security, debit transactions, parking, health information storage and photo ID with a single card. Offers universal compatibility with all HID proximity readers. This card can accommodate custom artwork, direct image printing, magnetic stripes, bar codes and contact smart chip modules.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1353-000	IsoProx II prox card	Unprogrammed	Graphics	0.84 mm
	654-1353-100	IsoProx II prox card	26 bit		
	654-1353-200	IsoProx II prox card, AC 4+4, Continuum	32 bit		
	654-1353-300	IsoProx II prox card, I/NET	32 bit		
	654-1353-400	IsoProx II prox card, Continuum	37 bit		


### DuoProx II

DuoProx II cards combine proximity technology, magnetic stripe technology and photo identification on a single card. By combining technologies on one card, the DuoProx II card provides the benefit of proximity technology for access control applications and meets the requirements for industry standard magnetic stripe applications. It also offers the ability to print a photo ID directly onto the card with a direct vinyl printer. Complete with external card numbering.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1354-000	DuoProx II prox card	Unprogrammed	Graphics	0.84 mm
	654-1354-100	DuoProx II prox card	26 bit		
	654-1354-200	DuoProx II prox card, AC 4+4, Continuum	32 bit		
	654-1354-300	DuoProx II prox card, I/NET	32 bit		
	654-1354-400	DuoProx II prox card, Continuum	37 bit		


### ProxKey II Fob

The ProxKey II Fob incorporates proximity technology into a device the size of a car key. Small and convenient, the ProxKey II is always there when you need it.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-1355-000	ProxKey II Fob, (Grey)	Unprogrammed	48 mm x 23 mm x 9 mm
	654-1355-100	ProxKey II Fob, (Grey)	26 bit	
	654-1355-200	ProxKey II Fob, (Grey) AC 4+4, Continuum	32 bit	
	654-1355-300	ProxKey II Fob, (Grey) I/NET	32 bit	
	654-1355-400	ProxKey II Fob, (Grey) Continuum	37 bit	

### ProxPass Active Vehicle Tag

The ProxPass Active Vehicle Tag is an active tag specifically designed for vehicle access control. Providing convenient access control for parking and fleet management applications, Provides a 1200 mm to 2400 mm read range. Velcro backing attaches easily to interior of vehicle windshield. Compatible with MaxiProx® reader and all HID card formats and offers a two to five year battery life, depending on usage.


Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1356-000	ProxPass Active Vehicle Tag	Unprogrammed	Brushed	7.6 mm
	654-1356-100	ProxPass Active Vehicle Tag	26 bit		
	654-1356-200	ProxPass Active Vehicle Tag, AC 4+4, Continuum	32 bit		
	654-1356-300	ProxPass Active Vehicle Tag, I/NET	32 bit		
	654-1356-400	ProxPass Active Vehicle Tag, Continuum	37 bit		

## Indala – Readers

Indala FlexPass readers provide a stylish way to manage the accessibility of critical places, people, goods and information. Suitable for both indoor and outdoor use. Please note that one of the enhanced security features of the Indala product range is that the bit format of the reader and the card must be identical to correctly decode the encrypted data on the card.


### FlexPass Arch Slim Reader

The FlexPass Arch Slim Reader is designed to mount onto a doorframe or other small location. Operating from an input voltage of 4-16 VDC, the maximum read range is up to 127 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2306-100	Arch Slim Reader – 26bit	Black	Fly Lead	114 mm x 43 mm x 20 mm	4-16 VDC	96 mA @ 12 VDC; 100 mA @ 5 VDC	125 g
	654-2306-200	Arch Slim Reader – 32bit AC4+4						
	654-2306-300	Arch Slim Reader – 32bit I/NET						
	654-2306-400	Arch Slim Reader – 37bit						
	654-2307-100	Arch Slim Reader – 26bit	Grey					
	654-2307-200	Arch Slim Reader – 32bit AC4+4						
	654-2307-300	Arch Slim Reader – 32bit I/NET						
	654-2307-400	Arch Slim Reader – 37bit						
	654-2308-100	Arch Slim Reader – 26bit	Beige					
	654-2308-200	Arch Slim Reader – 32bit AC4+4						
	654-2308-300	Arch Slim Reader – 32bit I/NET						
	654-2308-400	Arch Slim Reader – 37bit						

### FlexPass Wave Slim Reader

The FlexPass Wave Slim Reader is designed to mount onto a doorframe or other small location. Operating from an input voltage of 4-16 VDC, the maximum read range is up to 127 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2309-100	Wave Slim Reader – 26bit	Black	Fly Lead	140 mm x 43 mm x 28 mm	4-16 VDC	96 mA @ 12 VDC; 100 mA @ 5 VDC	170 g
	654-2309-300	Wave Slim Reader – 32bit I/NET						
	654-2309-400	Wave Slim Reader – 37bit						

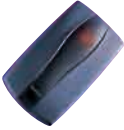
### FlexPass Arch WallSwitch Reader

The FlexPass Arch WallSwitch Reader is ideal for indoor and outdoor locations. Operating from an input voltage of 4-16 VDC, the maximum read range is up to 127 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2311-100	Arch WallSwitch Reader – 26bit	Black	Fly Lead	114 mm x 76 mm x 20 mm	4-16 VDC at reader	96 mA @ 12 VDC; 100 mA @ 5 VDC	139 g
	654-2311-200	Arch WallSwitch Reader – 32bit AC4+4						
	654-2311-300	Arch WallSwitch Reader – 32bit I/NET						
	654-2311-400	Arch WallSwitch Reader – 37bit						
	654-2312-100	Arch WallSwitch Reader – 26bit	Grey					
	654-2312-200	Arch WallSwitch Reader – 32bit AC4+4						
	654-2312-300	Arch WallSwitch Reader – 32bit I/NET						
	654-2312-400	Arch WallSwitch Reader – 37bit						
	654-2313-100	Arch WallSwitch Reader – 26bit	Beige					
	654-2313-200	Arch WallSwitch Reader – 32bit AC4+4						
	654-2313-300	Arch WallSwitch Reader – 32bit I/NET						
	654-2313-400	Arch WallSwitch Reader – 37bit						


### FlexPass Wave WallSwitch Reader

The FlexPass Wave WallSwitch Reader is ideal for indoor and outdoor locations. Operating from an input voltage of 4-16 VDC, the maximum read range is up to 127 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2310-100	Wave WallSwitch Reader – 26 bit	Black	Fly Lead	140 mm x 84 mm x 28 mm	4-16 VDC	96 mA @ 12 VDC; 100 mA @ 5 VDC	170 g
	654-2310-300	Wave WallSwitch Reader – 32 bit I/NET						
	654-2310-400	Wave WallSwitch Reader – 37 bit						

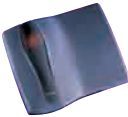
### FlexPass Arch Mid-Range Reader

The FlexPass Arch Mid-Range Reader is ideal for applications with heavy traffic. Its design provides easy installation on any surface, including metal without reducing read range. Operating from an input voltage of 4-16VDC, the maximum read range is up to 305 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2314-100	Arch Mid-Range Reader – 26 bit	Black	Fly Lead	130 mm x 155 mm x 28 mm	4-16 VDC	140 mA @ 12 VDC; 82 mA @ 5 VDC	393 g
	654-2314-200	Arch Mid-Range Reader – 32 bit AC4+4						
	654-2314-300	Arch Mid-Range Reader – 32 bit I/NET						
	654-2314-400	Arch Mid-Range Reader – 37 bit						
	654-2315-100	Arch Mid-Range Reader – 26 bit	Grey					
	654-2315-200	Arch Mid-Range – 32 bit AC4+4						
	654-2315-300	Arch Mid-Range – 32 bit I/NET						
	654-2315-400	Arch Mid-Range Reader – 37 bit						
	654-2316-100	Arch Mid-Range Reader – 26 bit	Beige					
	654-2316-200	Arch Mid-Range Reader – 32 bit AC4+4						
	654-2316-300	Arch Mid-Range Reader – 32 bit I/NET						
	654-2316-400	Arch Mid-Range – 37 bit						


### FlexPass Wave Mid-Range Reader

The FlexPass Wave Mid-Range Reader is ideal for applications with heavy traffic. Its design provides easy installation on any surface, including metal without reducing read range. Operating from an input voltage of 4-16VDC, the maximum read range is up to 305 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2323-100	Wave Mid-Range Reader – 26 bit	Black	Fly Lead	140 mm x 163 mm x 35 mm	4-14 VDC	140 mA @ 12 VDC; 82 mA @ 5 VDC	393 g
	654-2323-300	Wave Mid-Range Reader – 32 bit I/NET	Black					
	654-2323-400	Wave Mid-Range Reader – 37 bit	Black					


### FlexPass KeyPad Reader

The FlexPass KeyPad Reader combines both a proximity reader and a keypad in a small, attractive package for applications where additional security is required from both an access card and a personal identification number (PIN). Waterproof and vandal resistant, it is suitable for both indoor and outdoor applications without the need for any additional housing.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2318-100	KeyPad Reader – 26 bit 8 bit burst	Beige	Fly Lead	116 mm x 76 mm x 17 mm	4-16 VDC	91 mA @ 12 VDC 100 mA @ 5 VDC	473 g
	654-2318-200	KeyPad Reader – 32 bit AC4+4 8 bit burst						
	654-2318-300	KeyPad Reader – 32 bit I/NET 8 bit burst						
	654-2318-400	KeyPad Reader – 37 bit 8 bit burst						
	654-2319-100	KeyPad Reader – 26 bit 8 bit burst	Black					
	654-2319-200	KeyPad Reader – 32 bit AC4+4 8 bit burst						
	654-2319-300	KeyPad Reader – 32 bit AC4+4 8 bit burst						
	654-2319-400	KeyPad Reader – 37 bit 8 bit burst						
	654-2320-100	KeyPad Reader – 26 bit 4*3 matrix	Beige					
	654-2320-200	KeyPad Reader – 32 bit AC4+4 4*3 matrix						
	654-2320-400	KeyPad Reader – 37 bit 4*3 matrix						
	654-2321-100	KeyPad Reader – 26 bit 4*3 matrix	Black					
	654-2321-200	KeyPad Reader – 32 bit AC4+4 4*3 matrix						
	654-2321-400	KeyPad Reader – 37 bit 4*3 matrix						

### FlexPass Arch Long-Range Reader

The FlexPass Arch Long-Range Reader is designed for applications requiring maximum read range and is ideal for parking or physically challenging environments; (ADA requirement). Other uses such as concealment behind or within thick building materials, take advantage of the readers bi-directional (equally from both sides) read capability, providing both access and egress from a single reader. Operating from an input voltage of 12-24 VDC, the maximum read range is up to 711 mm using FlexCard® standard cards.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2322-100	Arch Long-Range Reader – 26 bit	Black		284 mm x 284 mm x 46 mm	12-24 VDC	1 A/750 mA	500 g
	654-2322-200	Arch Long-Range Reader – 32 bit AC4+4						
	654-2322-300	Arch Long-Range Reader – 32 bit I/NET						
	654-2322-400	Arch Long-Range Reader – 37 bit						


## Indala – Cards

Indala's FlexPass high-quality range of cards and key tags provide a highly secure solution as the access control data is scrambled on the card and can only be read correctly by a reader with the matching scramble table. The card data is then transmitted by the reader to the host system in the correct Wiegand, ABA Track II or Serial format. Indala FlexSecur® option goes one step further and screens out unauthorized cards prior to sending programming data on the host system. The additional verification step enhances the security of your access system in three ways:

- The entire data field is scrambled prior to programming the card. Therefore, the data on the card cannot be decoded to determine the actual information on the card.
- The information on the card is locked and only the reader has the key to unlock this scrambled data. By matching the reader key with the lock, the programming data is translated for the host system. If the two do not match the reader denies the user access, and does not send the invalid information to the host.
- Readers can be programmed for each site, protecting the end user by making each site unique for readers as well as cards.


### FlexPass Adhesive Tag

The FlexPass Adhesive Tag can turn your plastic ID badge into a proximity credential. Effortlessly upgrade from magnetic stripe or barium ferrite technology, or add prox to your smart card, by attaching the FlexTag™ to your existing card. The FlexTag™ will also adhere to any non-metallic device, such as a cell phone or PDA, to create an instant proximity badge.

Image	TAC-Part No.	Description	Coding	Dimensions
	654-2350-000	FlexPass Adhesive Tag	Unprogrammed	Diameter 33 mm Thickness 1.8 mm
	654-2350-100	FlexPass Adhesive Tag	26 bit	
	654-2350-200	FlexPass Adhesive Tag, AC4+4, Continuum	32 bit	
	654-2350-300	FlexPass Adhesive Tag, I/NET	32 bit	
	654-2350-400	FlexPass Adhesive Tag, Continuum	37 bit	


### FlexCard® Standard Card

The FlexCard® Standard proximity card is ideal for applications that require a robust card that is flexible and light. Its vertical design is well suited for use as a badge, and the FlexCard® can accept a variety of ID badge overlays.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2351-100	FlexCard® Std Card	26 bit	Non-Printable	1.8 mm
	654-2351-200	FlexCard® Std Card, AC4+4, Continuum	32 bit		
	654-2351-300	FlexCard® Std Card, I/NET	32 bit		
	654-2351-400	FlexCard® Std Card, Continuum	37 bit		


### FlexISO® Imagable Prox Card

The FlexISO® Imagable Proximity Card is a credit card thin access credential, which is ISO 7813 compliant with nominal thickness of 0.76 mm. The FlexISO® Proximity Card comes with a graphics quality surface on both sides of the card, and has the ability to contain multiple ID technologies in a single credential. The FlexISO® proximity Card can be combined with a magnetic strip, Wiegand code strip, bar code, a multitude of smart chips and MIFARE®.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-2352-100	FlexISO® Imagable Prox Card	26 bit	Graphics	0.76 mm
	654-2352-200	FlexISO® Imagable Prox Card, AC4+4, Continuum	32 bit		
	654-2352-300	FlexISO® Imagable Prox Card, I/NET	32 bit		
	654-2352-400	FlexISO® Imagable Prox Card, Continuum	37 bit		
	654-2353-100	FlexISO® Imagable Prox Card c/w Magnetic stripe	26 bit		
	654-2353-200	FlexISO® Imagable Prox Card c/w Magnetic stripe, AC4+4, Continuum	32 bit		
	654-2353-300	FlexISO® Imagable Prox Card c/w Magnetic stripe, I/NET	32 bit		
	654-2354-400	FlexISO® Imagable Prox Card c/w Magnetic stripe, Continuum	37 bit		

### FlexKey® Fob

The FlexKey® Fob's contemporary design enables it to be easily attached to a key ring, badge clip or badge lanyard. Built to withstand harsh operating environments, FlexKey®'s rugged double-sealed construction also allows for customisation. By adding a company logo, the FlexKey® is ideally suited for vacation resorts, locker rooms, health spas, apartment buildings, club houses, as well as commercial office spaces and industrial applications where photo ID's are not required.


Image	TAC-Part No.	Description	Coding	Dimensions
	654-2355-100	FlexKey® Fob	26 bit	44 mm x 30 mm x 6 mm
	654-2355-200	FlexKey® Fob, AC4+4, Continuum	32 bit	
	654-2355-300	FlexKey® Fob, I/NET	32 bit	
	654-2355-400	FlexKey® Fob, Continuum	37 bit	

## Idesco – Readers

Idesco access control readers have been developed for reliable and secure access control, data collection and person identification in various environments. Good performance and robustness ensure functionality even in the harshest environments. These readers have been added to the TAC EAC portfolio as they offer an aesthetically pleasing style.


### Access 7A Reader

The Access 7A Reader can be used in the most demanding surroundings. Its excellent performance and robustness ensures optimal functionality also in harsh environments. The basic housing is internationally registered and suitable for indoor and outdoor usage and can be installed directly onto metal surfaces without additional insulation. The Access 7A range of readers makes use of serial number technology provided in a 26bit format.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3301-000	Access 7A Reader (Black Lense)	Black	1m Fly Lead	110 mm x 43 mm x 24 mm	24 VDC (8-30 VDC)	30 mA (50 mA Max.)	244 g


### Access 7A Quattro Reader

The square format of the Access 7A Quattro Reader is designed for mounting directly onto any electrical back box. The mounting unit of the reader is equipped with installation holes; ideal for fixing to plaster walls or other surfaces. An elegant snap-on cover is placed on the mounting unit. The Access 7A range of readers makes use of serial number technology provided in a 26bit format.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3302-000	Access 7A Quattro Reader	Black	1m Fly lead	86 mm x 86 mm x 17 mm	24 VDC (8-30 VDC)	30 mA (50 mA Max.)	315 g


### Access 7A PIN Reader

The Access 7A PIN Reader improves security in access control by providing PIN code identification to be used together with an identification card. The keypad of the reader is based on EMFi foil technology. The EMFi foil senses the pressure changes on the active key area when pressed. There are no moving parts in the PIN pad, and due to this no maintenance is required. The Access 7A range of readers makes use of serial number technology provided in a 26bit format.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3303-000	Access 7A PIN Reader (Black Lens)	Black	1m Fly Lead	138 mm x 44 mm x 24 mm	24 VDC (8-30 VDC)	30 mA (50 mA max.)	325 g


### Access 8AH Reader

The Access 8AH Reader guarantees that the reader can be used in the most demanding surroundings. Its excellent performance and robustness ensures optimal functionality also in harsh environments. The Basic housing is internationally registered and suitable for indoor and outdoor usage and can be installed directly onto metal surfaces without additional insulation. This reader is compatible with HID cards making it ideal if transition to this style is preferred.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3304-000	Access 8AH Reader (HID Compatible, Black Lense)	Black	1m Fly Lead	110 mm x 43 mm x 24 mm	24 VDC (10-30 VDC)	130 mA Max.	244 g


### Access 8AH Quattro Reader

The square format of the Access 8AH Quattro Reader is designed for mounting directly onto any electrical back box. The mounting unit of the reader is equipped with installation holes; ideal for fixing to plaster walls or other surfaces. An elegant snap-on cover is placed on the mounting unit. This reader is compatible with HID cards making it ideal if transition to this style is preferred.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3305-000	Access 8AH Quattro Reader (HID Compatible, Black Lens)	Black	1m Fly Lead	86 mm x 86 mm x 17 mm	24 VDC (10-30 VDC)	130 mA Max.	315 g

### Access 8AH PIN Reader

The Access 8AH PIN Reader improves security in access control by providing PIN code identification to be used together with an identification card. The keypad of the reader is based on EMFi foil technology. The EMFi foil senses pressure changes on the active key area when pressed. There are no moving parts in the PIN pad, and due to this no maintenance is required. This reader is compatible with HID cards making it ideal if transition to this style is preferred.


Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current requirements	Weight
	654-3306-000	Access 8AH PIN Reader (HID Compatible, Black Lens), 8bit burst Wiegand	Black	1m Fly Lead	138 mm x 44 mm x 24 mm	24 VDC (10-30 VDC)	130 mA Max.	325 g

## Idesco – Cards

Idesco offers a wide range of 125 kHz tags and cards. Typical applications for these products include access control, time and attendance and asset marking.


### EM 4102 Card

The EM 4102 PVC Card has good printability with thermal transfer and dye-sublimation printers.

Image	TAC-Part No.	Description	Surface	Thickness
	654-3350-000	EM 4102 Card, Serial Number Format	Graphics	1.4 mm


### Coin Tag

The epoxy laminated Coin Tag is easy to fix in a convenient leather key ring.

Image	TAC-Part No.	Description	Dimensions
	654-3351-000	Coin Tag – EM 2402 A (4102), Serial No Format	24 mm x 2 mm


### Leather Coin Tag Key ring

To be used with the 125kHz Coin Tags.

Image	TAC-Part No.	Description	Dimensions
	654-3352-000	Leather Coin Tag Key ring, Serial No Format	63 mm x 35 mm

### Sail Tag

The Sail Tag key ring is very robust and beautifully designed for everyday use.

Image	TAC-Part No.	Description	Dimensions
	654-3353-000	Sail Tag – EM 4102, Serial No Format	55 mm x 30 mm

# Wiegand Swipe Technology




Wiegand technology is a mature standard and works by embedding small lengths of special wire into a card. This process offers a medium to high level of security. Wiegand cards take longer than most to produce, so consideration should be given to this when ordering. This technology is for legacy systems only and should not be used for new systems.

## HID – Readers

As one of the leading manufacturers of Radio Frequency Identification Devices, HID produces a line of Wiegand and proximity products for access control. Meeting virtually any access control requirements, HID's range of access cards and readers combine technology, performance and value. The HID line of Wiegand-effect readers are moulded from rugged high impact plastic to resist vandals. They are all epoxy potted to seal out moisture, are immune to external magnetic fields, operate in temperatures from -40°C to 70°C, and are suitable for indoor and outdoor use.


### Classic Swipe Reader

The HID Wiegand Classic Swipe is a pass-through reader. It can be back mounted on a vertical surface and the slot may be orientated upward, downward, facing left or right. It performs well in high volume installations and may be exposed to sun, rain or snow.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1201-000	Classic Swipe	Black	Terminal Strip	58 mm x 135 mm x 43 mm	5-12 VDC.	40 mA typical	343 g
	654-1202-000			2m Fly lead				

### Turnstile Reader

The HID Wiegand Turnstile Reader is a pass-through reader. It is usually bottom-mounted on a horizontal surface such as a turnstile support, but may also be mounted on a wall with the slot aligned vertically. It performs well in high-volume and high-wear installations and may be exposed to sun, rain, or snow.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-1203-000	Turnstile Reader	Black	2m Fly Lead	45 mm x 178 mm x 45 mm	5-12 VDC	40 mA typical	567 g
	654-1204-000		Chrome					

## HID – Cards

These access cards from HID include an embedded Wiegand code strip that provides many possible codes. The cards are laminated under pressure to become solid vinyl when finished. It is virtually impossible to counterfeit, alter or copy these cards. Any attempt to reach the code strip destroys the cards. It should be noted that due to the relatively complex manufacturing techniques adopted for this technology lead times for orders are often 6 to 10 weeks. A minimum order quantity of 100 cards is required.

### SensorCard


The SensorCard is a basic vinyl Wiegand-encoded card that is strong and flexible for resistance to breakage, and reliable over a broad range of temperatures and humidities. Three thicknesses are available: the ISO thin 0.76 mm, standard 0.94 mm and an external wear 1.2 mm. Please note over time fewer variants of these cards will be available.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1250-000	SensorCard, Wiegand	37 bit	brushed	0.94 mm
	654-1251-000	SensorCard, Wiegand AC4+4,	32 bit	brushed	0.94 mm
	654-1252-000	SensorCard, Wiegand	26 bit	brushed	0.94 mm
	654-1253-000	SensorCard, Wiegand,	37 bit	graphics	0.76 mm
	654-1253-010	SensorCard, Wiegand, custom artwork*	37 bit	graphics	0.76 mm
	654-1253-020	SensorCard, Wiegand, custom artwork*	37 bit	graphics	0.76 mm
	654-1253-030	SensorCard, Wiegand, custom artwork*	37 bit	graphics	0.76 mm
	654-1254-000	SensorCard, Wiegand	37 bit	graphics	0.94 mm
	654-1254-010	SensorCard, Wiegand, custom artwork*	37 bit	graphics	0.94 mm
	654-1255-000	SensorCard, Wiegand	37 bit	graphics	1.2 mm
	654-1256-000	SensorCard, Wiegand AC4+4	32 bit	graphics	0.94 mm

\* Please note a minimum order quantity of 500 cards applies for these products. The custom artwork cards are dedicated to specific customers.

## SensorCard II


The SensorCard II combines Wiegand and magnetic strip technology on a single card for multiple applications. Strong and flexible, the SensorCard II can be supplied with a graphics quality surface for use with all direct image printers and magnetic stripe readers. Please note over time fewer variants of these cards will be available.

Image	TAC-Part No.	Description	Coding	Surface	Thickness
	654-1257-000	SensorCard II, Wiegand, c/w magnetic stripe	37 bit	brushed	0.76 mm
	654-1258-000	SensorCard II, Wiegand, c/w magnetic stripe	37 bit	graphics	0.76 mm
	654-1258-010	SensorCard II, Wiegand, c/w magnetic stripe, custom artwork*	37 bit	graphics	0.76 mm
	654-1259-000	SensorCard II, Wiegand, c/w magnetic stripe	26 bit	graphics	0.76 mm

\* Please note a minimum order quantity of 500 cards applies for these products. The custom artwork cards are dedicated to specific customers.

## ProxCard Plus

The ProxCard Plus card incorporates a combination of proximity, Wiegand and optional magnetic stripe for multiple applications, or for transitioning from a primarily Wiegand technology arrangement to HID proximity based system. With all graphics quality surface as standard the Proxcard Plus is suitable for use with direct image printers, all Wiegand readers and most magnetic stripe readers. Please note over time fewer variants of these cards will be available.

Image	TAC-Part No.	Description	Coding	Thickness
	654-1260-000	ProxCard Plus, Wiegand / proximity	37 bit	1.20 mm
	654-1261-000	ProxCard Plus, Wiegand / proximity	26 bit	0.94 mm
	654-1262-000	ProxCard Plus, Wiegand / proximity with magnetic stripe	37 bit	0.94 mm

# Magnetic Swipe Technology

Magnetic Stripe technology is the most basic and most traditional form of access control. Due to higher security needs this technology is becoming less favoured. The basic operation relies on a magnetic stripe on the back of the card that gets swiped into a reader. This technology is for legacy systems only and should not be used for new systems.




## Indala – Readers

Magnetic Stripe Readers from Indala bring superior magneto-resistive, read-head technology to the security industry. This magnetic reader head technology, which is widely employed in the reading of information from high-density magnetic disk drives, has proven ideal for even the most demanding access control card reader applications.


### 5000 Series 5 Volt, Mag Stripe Dorado Reader

5000 Series 5 Volt, Mag Stripe Dorado Readers are external, metal housed, swipe card readers configured to read ISO track 2 of a magnetic stripe card. The readers incorporate state of the art heated magneto-resistive read heads, LED indication, and fully encapsulated electronics, allowing operation in harsh environments.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2101-000	5000 Series 5 Volt, Mag Stripe Dorado Reader	Black	3m Fly lead	113 mm x 45 mm x 39 mm	5VDC	45 mA typical	409 g
	654-2102-000		Chrome					

### ABA Swipe Reader with Keypad


The ABA Swipe Reader with Keypad offers added security for external use. The heavy-duty metal case with stainless steel keypad protects against vandalism and external damage, whilst the integral heating element enables operation in harsh temperatures. The reader reads ISO track 2 and provides a 26 bit Wiegand output.

Image	Part Number	Description	Colour	Termination	Physical Dimensions	Power Supply	Current Requirements	Weight
	654-2103-000	ABA Swipe Reader with Keypad – 8 bit burst Wiegand	Grey	Terminal blocks	137 mm x 90 mm x 47 mm	5 VDC	40-50 mA typical	1.1 kg
	654-2104-000	ABA Swipe Reader with Keypad – 4*3 matrix Wiegand						

## Indala – Cards

### Pre-programmed Magnetic Stripe

Indala Pre-programmed Magnetic Stripe cards are for use with the ABA magnetic stripe readers. They are ABA encoded and include the matching card number on the back for easy identification.

Image	TAC-Part No.	Description	Thickness
	654-2150-000	Pre-programmed Magnetic Stripe	Credit Card

# Appendix

## Obsolete Product Table

TAC Part Number	Old Andover Part Numbers / Obsolete Items					
654-1201-000	M01-7000-345					
654-1202-000	M01-7000-121					
654-1203-000	M01-7000-108					
654-1204-000	M01-7000-109					
654-1250-000	M01-7001-147	M01-7001-064	M01-7001-046	M01-7001-148	M01-7001-149	M01-7001-150
654-1251-000	M01-7001-069	M01-7001-158	M01-7001-160	M01-7001-153		
654-1252-000	M01-7001-232	M01-7001-230	M01-7001-234	M01-7001-231		
654-1253-000	M01-7001-169					
654-1253-010	M01-7001-169CA					
654-1253-020	M01-7001-062CA					
654-1253-030	M01-7001-062CB					
654-1254-000	M01-7001-062					
654-1254-010	M01-7001-062CC					
654-1255-000	M01-7001-139					
654-1256-000	M01-7001-009					
654-1257-000	M01-7001-151	M01-7001-152				
654-1258-000	M01-7001-236					
654-1258-010	M01-7001-236C					
654-1259-000	M01-7001-246					
654-1260-000	M01-7001-195					
654-1262-000	M01-7001-193					
654-1301-000	M01-7000-122					
654-1302-000	M01-7000-123					
654-1303-000	M01-7000-124					
654-1304-000	M01-7000-125					
654-1305-000	M01-7000-117					
654-1306-000	M01-7000-118					
654-1307-000	M01-7000-247					
654-1308-000	M01-7000-248					
654-1309-000	M01-7000-012					
654-1310-000	M01-7000-013					
654-1311-000	M01-7000-142					
654-1312-000	M01-7000-143					
654-1313-000	M01-7000-144					
654-1314-000	M01-7000-145					

## Obsolete Product Table cont'd:

TAC Part Number	Old Andover Part Numbers / Obsolete Items					
654-1315-000	M01-7000-111					
654-1316-000	M01-7000-112					
654-1317-000	M01-7000-213					
654-1318-000	M01-7000-214					
654-1319-000	M01-7000-113					
654-1320-000	M01-7000-114					
654-1321-000	M01-7000-119					
654-1350-000	M01-7001-003	M01-7001-004				
654-1350-100	M01-7001-004					
654-1350-400	M01-7001-003					
654-1351-000	M01-7001-166	M01-7001-071	M01-7001-219			
654-1351-100	M01-7001-219					
654-1351-400	M01-7001-166	M01-7001-071				
654-1352-000	M01-7001-140	M01-7001-141				
654-1352-100	M01-7001-141					
654-1352-400	M01-7001-140					
654-1353-000	M01-7001-140SM					
654-1353-400	M01-7001-140SM					
654-1354-000	M01-7001-142	M01-7001-143				
654-1354-200	M01-7001-143					
654-1354-400	M01-7001-142					
654-1355-000	M01-7001-073	M01-7001-221				
654-1355-100	M01-7001-221					
654-1355-400	M01-7001-073					
654-1356-000	M01-7001-188					
654-1356-400	M01-7001-188					
654-2101-000	M01-7000-51D2B					
654-2102-000	M01-7000-51D2C					
654-2103-000	M01-7000-6MW1M					
654-2104-000	M01-7000-6MDD1					
654-2150-000	MAND-ABA					
654-2306-100	M01-7000-171B-26	654-2303-100	M01-7000-140B-26			
654-2306-200	M01-7000-171B-32	654-2303-200	M01-7000-140B-32			
654-2306-300	IN-FP4511A	654-2303-300				
654-2306-400	M01-7000-171B-37	654-2303-400	M01-7000-140B-37			
654-2307-100	M01-7000-171G-26	654-2304-100	M01-7000-140G-26			
654-2307-200	M01-7000-171G-32	654-2304-200	M01-7000-140G-32			
654-2307-300	IN-FP4515A	654-2304-300				
654-2307-400	M01-7000-171G-37	654-2304-400	M01-7000-140G-37			

## Obsolete Product Table cont'd:

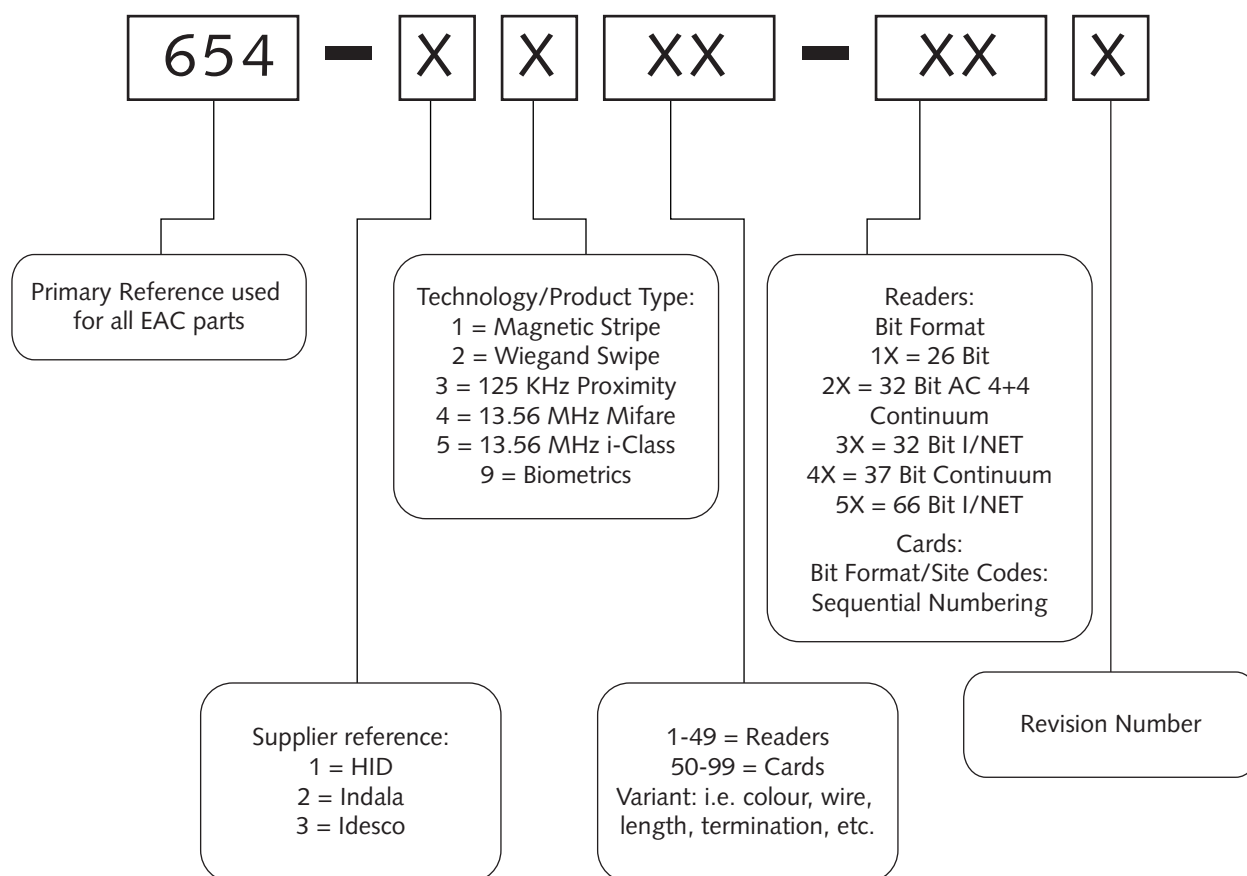
TAC Part Number	Old Andover Part Numbers / Obsolete Items					
654-2308-100	M01-7000-171T-26	654-2305-100	M01-7000-140T-26			
654-2308-200	M01-7000-171T-32	654-2305-200	M01-7000-140T-32			
654-2308-300	IN-FP3517A	654-2305-300	IN-FP3516A	IN-FP4517A	IN-FP4516A	
654-2308-400	M01-7000-171T-37	654-2305-400	M01-7000-140T-37			
654-2309-300	IN-FP1511A	IN-FP1514A				
654-2310-300	IN-FP1521A	IN-FP1524A				
654-2311-100	M01-7000-173B-26					
654-2311-200	M01-7000-173B-32					
654-2311-300	IN-FP4521A					
654-2311-400	M01-7000-173B-37					
654-2312-100	M01-7000-173G-26					
654-2312-200	M01-7000-173G-32					
654-2312-300	IN-FP4525A					
654-2312-400	M01-7000-173G-37					
654-2313-100	M01-7000-173T-26					
654-2313-200	M01-7000-173T-32					
654-2313-300	IN-FP4527A	IN-FP4526A				
654-2313-400	M01-7000-173T-37					
654-2314-100	M01-7000-200B-26					
654-2314-200	M01-7000-200B-32					
654-2314-400	M01-7000-200B-37					
654-2315-100	M01-7000-200G-26					
654-2315-200	M01-7000-200G-32					
654-2315-300	IN-FP3235A					
654-2315-400	M01-7000-200G-37					
654-2316-100	M01-7000-200T-26					
654-2316-200	M01-7000-200T-32					
654-2316-400	M01-7000-200T-37					
654-2317-100	M01-7000-200W-26					
654-2318-100	M01-7000-166-26					
654-2318-200	M01-7000-166-32					
654-2318-300	IN-FP5067B					
654-2318-400	M01-7000-166-37					
654-2319-100	M01-7000-167-26					
654-2319-200	M01-7000-167-32					
654-2319-300	IN-FP5061B					
654-2319-400	M01-7000-167-37					
654-2320-100	M01-7000-211-26					
654-2320-200	M01-7000-211-32					

## Obsolete Product Table cont'd:

TAC Part Number	Old Andover Part Numbers / Obsolete Items					
654-2320-400	M01-7000-211-37					
654-2321-100	M01-7000-212-26					
654-2321-200	M01-7000-212-32					
654-2321-400	M01-7000-212-37					
654-2322-100	M01-7000-223B-26					
654-2322-200	M01-7000-223B-32					
654-2322-400	M01-7000-223B-37					
654-2351-100	M01-7001-092-26	M01-7001-135	M01-7001-136			
654-2351-200	M01-7001-092-32	M01-7001-067				
654-2351-300	IN-FPCRD					
654-2351-400	M01-7001-092-37	M01-7001-134				
654-2352-100	M01-7001-167-26	M01-7001-226				
654-2352-200	M01-7001-167-32					
654-2352-300	IN-FPISO					
654-2352-400	M01-7001-167-37					
654-2353-100	M01-7001-168-26	M01-7001-227				
654-2353-200	M01-7001-168-32	M01-7001-189				
654-2354-400	M01-7001-168-37					
654-2355-100	M01-7001-094-26	M01-7001-224				
654-2355-200	M01-7001-094-32					
654-2355-300	IN-FPKEY					
654-2355-400	M01-7001-094-37					

# Part Number Description

The ten digit part numbering system used for our electronic access control products is built from the following information blocks. It provides a ready reference to the specification of the item concerned, and helps avoid errors in order placement.



# Access Control Equipment Order Form

Please fax to +46 8 500 101 96, or email to [order@tac.se](mailto:order@tac.se)

Order Number:	Date:
System Integrator:	Client's Name:
Contact Name: Address:  Post Code:	Contact Name: Client's Address:  Post Code:
Phone: Mobile: Fax:	Phone: Mobile: Fax:
Project Name/Reference:	Shipping Address:  Post Code:

* TAC Part Number	Description	* Bit Format Required	** Quantity

For Existing Sites, Please provide the following data:  * Site Code:  * Starting Serial Number:  * MIFARE® Sector Number: (default is sector 15)
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Any Special Instructions:
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\* Mandatory Data. Your order will be delayed without this information

\*\* When ordering cards please make sure minimum order quantity is greater than 100 except where otherwise stated



## Schneider Electric

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On October 1st, 2009, TAC became the Buildings Business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes.

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