

HID Global Product Catalog



ACCESS SECURE IDENTITY



888.792.7463
WWW.TARGETD.COM

THANK YOU

for your continued



support of HID Global access control products. This catalog contains a wealth of product information as well as additional content we are sure you will find useful in your decision making and purchasing process.



HID Global has historically been associated with affordability, quality and availability. This catalog shows our renewed vision to be the easiest company to do business with.

Catalog highlights include color-coded product categories to help ensure compatibility of credentials to readers. The color schemes carry over to product artwork, product data sheets, the HID Global website and even product packaging. A helpful “tips” section was added to answer Frequently Asked Questions (FAQs) and reduce order confusion.

We are pleased to have this shared business opportunity with you and we look forward to working together to ensure the success of your business.

Corporate Overview



HID Global is focused on creating customer value as the trusted source for products, services and know-how related to the delivery of secure identity.

HID Global is the trusted leader in providing access and ID management solutions for the delivery of secure identity. HID Global is focused on creating customer value worldwide with technology-based access solutions, issuance solutions, embedded technology solutions and logistics technology solutions. Headquartered in Irvine, California, HID Global has over 2,000 employees worldwide and operates international offices that support more than 100 countries. HID Global is an ASSA ABLOY Group brand.

As a leading manufacturer of secure identity solutions and contactless smart card technology for physical access control, HID Global is selected more than any other brand in the convergence of physical and logical access control. A highly recognized brand, HID Global credentials are requested in more applications for customers worldwide.

In addition, the company develops, manufactures and markets ID components, products and services typically deployed with national ID and epassport programs, corporate access control, supply chain management, animal tagging, financial transactions, transport and various industrial or manufacturing solutions.

- 
- ▶ Lifetime Warranties
 - ▶ Dedicated Customer Support
 - ▶ Online Training

Technology

The award-winning product line from HID Global includes iCLASS® 13.56 MHz contactless smart cards and readers, Proximity 125 kHz proximity, multiCLASS™ multi-technology card readers, High Definition Printer/Encoders, SecureMark RFID-based card issuance technology, and Networked Access Solutions that include Edge Solo and EdgeReader products, and VertX™ managed access controllers.

HID Global is a manufacturer of complete electronic access control products. The company's product offerings can provide a broad scope of security solutions allowing an organization to seamlessly transition from simple low frequency card and reader proximity installations to highly integrated contactless smart card solutions.

HID Global expands the flexibility of its products by adding multiple-technology capabilities to its entire product line. Users of HID Global products can select the specific technology combination that best suits the needs of different applications, or they can add yet another level of security by using multiple technologies at each door.

This provides users the ability to seamlessly upgrade to new technologies and add new applications. For increased security, users can incorporate a photo ID or anti-counterfeiting element such as a hologram or ultraviolet ink on to their credentials.

HID Global Locations

HID's corporate offices are located in Irvine, California. Operations serving the Americas are also based in Irvine, with regional headquarters in Haverhill, England (Europe) and Hong Kong (Asia Pacific). The company also maintains regional offices throughout the world for localized assistance.

CORPORATE OFFICES

North America

15370 Barranca Parkway
Irvine, CA 92618
Tel: 1 800 237 7769
Tel: +1 949 732 2000
Fax: +1 949 732 2360

REGIONAL HEADQUARTERS

Asia Pacific

19/F 625 King's Road
North Point, Island East
Hong Kong
Tel: 852 3160 9800
Fax: 852 3160 4809

Europe, Middle East & Africa

Haverhill Business Park
Phoenix Road
Haverhill, Suffolk
CB9 7AE England
Tel: +44 (0) 1440 714 850
Fax: +44 (0) 1440 714 840

Am Klingenweg 6a
65396 Walluf
Germany
Tel: +49 6123 791 0
Fax: +49 6123 791 199

Latin America

Circunvalacion Ote.
No. 201B Despacho 3
Col. Jardines del Moral
Leon 37160, Mexico
Tel: +52 477 779 1492
Fax: +52 477 779 1493

REGIONAL OFFICES

Americas

6533 Flying Cloud Drive
Eden Prairie, MN 55344
Tel: 1 800 459 5636
Fax: +1 952 941 7836

Argentina

Ferrari 372
C1414EGD
Buenos Aires, Argentina
Tel: (54 11) 4855-5984
Fax: (54 11) 4857-3573

Australia

Level 31, ABN AMRO Tower
88 Phillip Street
Sydney NSW 2000
Tel: +61 2 8211 0587
Fax: +61 2 8211 0555

Brazil

Av Guido Caloi 1985 Prédio 18
São Paulo - SP
CEP : 05802-140
Brazil
Tel: 55 (11) 5514-7100
Fax: 55 (11) 5514-7109

Canada

268 Lakeshore Road East, Suite 620
Oakville, Ontario
Canada L6J 7S4
Tel: 905 842 4860
Fax: 905 842 4846





China

Unit 1503, 15/F, East Tower,
Chuangxin Science & Technology Plaza Phase Two
Tian An Cyber Park, FuTian District
Shenzhen City, PRC
Postal Code: 518040
Tel: (86)755 8835 3190
Fax: (86)755 8835 3185

France

15 rue des Francs Bourgeois
F 67000 Strasbourg France
Tel: +33 (0) 3 90 22 10 66
Fax: +33 (0) 3 88 36 64 45

India

Ground Floor, Tower D Annex,
Millennia Towers
1&2 Murphy Road
Ulsoor, Bangalore
India - 560008
Tel: +91 80 255 43566
Fax: +91 80 255 43567

Japan

Rm 1107, Herios Kannai, 3-21-2,
Motohama-Cho, Naka-Ku,
Yokohama-City, Kanagawa-Pref,
Japan - 231-0004
Tel: (81) 45 222 3438
Fax: (81) 45 222 3439

Korea

21/F Seoul Finance Center
Taepyeongno 1-ga, Jung-gu
Seoul 100-768, South Korea
Tel: +82 2 3782 4518
Fax: +82 2 3782 4555

Netherlands

Prins Bernardlaan 16A
2405 VT Alphen a/d Rijn
Netherlands
Tel: +31 (0)172 234797
Fax: +31 (0)172 234877

Singapore

3 Lim Teck Kim Road, #11-02
Singapore Technologies Building
Singapore 088934
Tel: +65 6306 7666
Fax: +65 6305 7677

Thailand

All Seasons Place
87 Wireless Road
23/F, M Thai Tower
Lumpini, Phatumwan
Bangkok 10330 Thailand
Tel: 66 (0) 2 627 9394
Fax: 66 (0) 2 622 3363

HID Online Training

HID Global is pleased to announce the following online training courses.

125 kHz Proximity Technology Basics - To properly order and implement 125 kHz Proximity products, you first need a working knowledge of the technology that runs these systems. This course provides a thorough overview of the technology that runs the 125 Proximity kHz credentials and readers.

Card Data Format Selection - Credentials require a proper understanding of card data formats and how they affect the programming performed by HID. This course provides a fundamental review of card data formats and how they are used by access control panels.

Contrasting the 125 kHz Proximity vs. iCLASS® - Since 1992, the 125 kHz Proximity line of cards and readers has been the standard for access control solutions and continues to lead the industry. HID's iCLASS 13.56 MHz read/write contactless smart card technology has been optimized to make physical access control more powerful, providing versatile interoperability and multiple application support.

How to Order Guide: 125 kHz Proximity - You're ready to order a new batch of HID 125 kHz Proximity cards and readers. Now it's time to fill out your order.

How to Order Guide: iCLASS - You're ready to order a new batch of HID iCLASS cards and readers. Now it's time to fill out your order.

iCLASS Technology Basics - To properly order and implement iCLASS products, you must first have a working knowledge of the technology that runs these systems. This course provides a thorough overview of the technology that runs the iCLASS credentials and readers.

To register, please use on the following link:
www.hidtraining.com

Product Packaging



Have you seen HID's reader packaging?
If not, you will soon.

HID Global's ADI dedicated sales team has traveled the country adding packaging to readers in your inventory. HID created the packaging with you and your customers in mind. We hope it will help improve the sales order process and answer questions that the "old brown box" never could.

How does the new packaging help?

The new packaging comes with three basic elements.

1. Photo of the reader
2. Key reader features like color, configuration, and mounting style
3. Specification comparison chart of the reader family

You will also notice that the new box packaging colors correspond with the pages of this catalog.

With product detail and information on the box, your customers are sure to pick the right reader for the job. Happy Selling!

Priority Plus Credential Service



HID is pleased to announce its Priority Plus™ Card Service.

HID Global now offers 48-hour order shipments of standard Prox and iCLASS technology credentials in quantities between 100 and 1,000 cards. The new Priority Plus Card Service is available for all orders for customers in North America. Each order will be shipped within 48 hours after receipt of a purchase order, complete card ordering information and HID Global order acknowledgement*.

- ▶ Priority Plus Card Service is free of charge.
- ▶ Qualifying orders are automatically included in the service.
- ▶ HID's 24-hour order cancellation/change policy does not apply to Priority Plus Card Service orders.

HID Priority Plus Card Service standard features include programming and inkjet card numbering.

For a complete list of cards available in the Priority Plus Card Service, please use the following link:

www.hidglobal.com/priorityplus

* Please note that an order may take up to 48 hours to enter and acknowledge.

If you have any questions or need further product-related assistance, please contact us at 800-872-5359 and we will be happy to assist you.

Ordering HID Cards

When ordering HID cards, there are four pieces of information HID needs to process the order. They are:

1) part number, 2) format, 3) facility code, and 4) number range.

With each card order, HID takes unprogrammed cards and programs them with a specific HID format that includes a facility code and card number.

Even if your customer does not need a specific format, facility code or number range, your order to HID must include this information. Situations where your customer requests a Corporate 1000 format or an HID proprietary format are exceptions.

Part Number

HID card part numbers are derived from the How To Order Guide for each HID card base model number. Typical base model numbers are 1326 (ProxCard II clamshell card) and 1386 (ISOProx II printable card). The digits following the base model number represent programming (whether the card is to be programmed by HID – most are), front packaging (what appears on the front of the card), back packaging (what appears on the back of the card), card numbering and slot punch.

Format

The format is the structure of the data stored in an access control card. Formats represent a specific number of bits and a specific way those bits are programmed on the card. The most common HID format is H10301. This is HID's standard 26-bit format. Technically, there can be many 26-bit formats because 26 bits can be programmed on a card in many different ways. Therefore, format numbers are assigned to each HID format. HID has Corporate 1000 formats for large end-users, HID proprietary formats for dealers/integrators and end-users and a substantial number of formats for access control system OEMs.

Facility Code

The term “facility code”, sometimes called “site code”, can be misleading in today's access control world. It does not need to refer to a specific facility or site, but it can if that is how the end user wants to use it. There are two pieces of access control information on a card. They are the facility code and card number. The facility code is simply a second identifying number on the card, and each card order must include a facility code. The facility code is used to provide a second level of security within the card database. Card number 10,000 with facility code 34 is a different card than card number 10,000 with facility code 96. The facility code increases the number of card combinations within an access control system, reducing the possibility of duplicate cards. Many access control systems allow multiple facility codes within the same cardholder database.

Number Range

Each HID card has an individual card number. This is the number used by the access control system database to identify a person. The number range is the set of individual card numbers needed on the order.

Technology Card Guide



iCLASS & MIFARE/DESFire

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



HID & Indala Prox

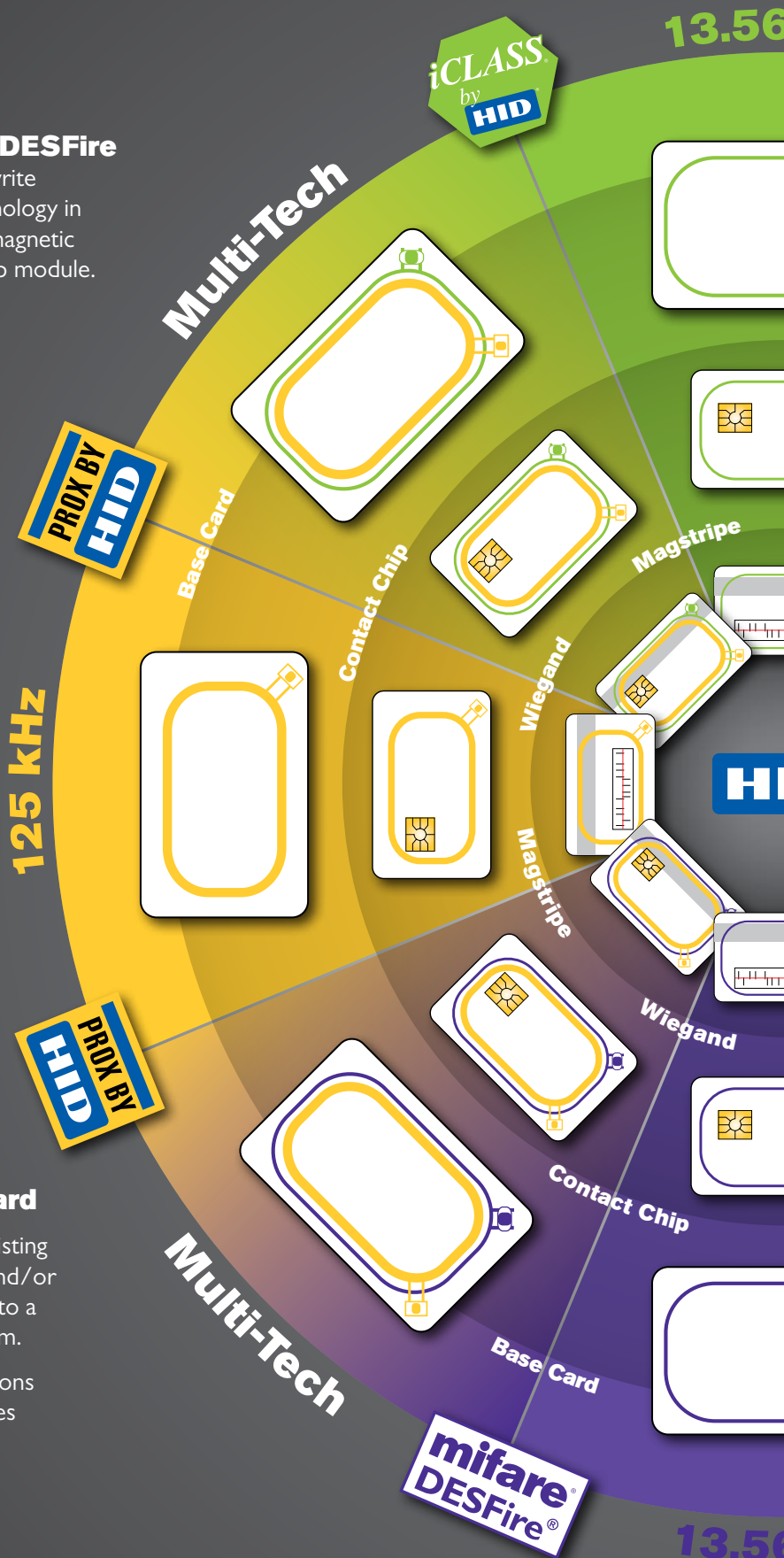
Works with existing HID and Indala proximity readers. Add new applications to your proximity card with a contact smart chip module.

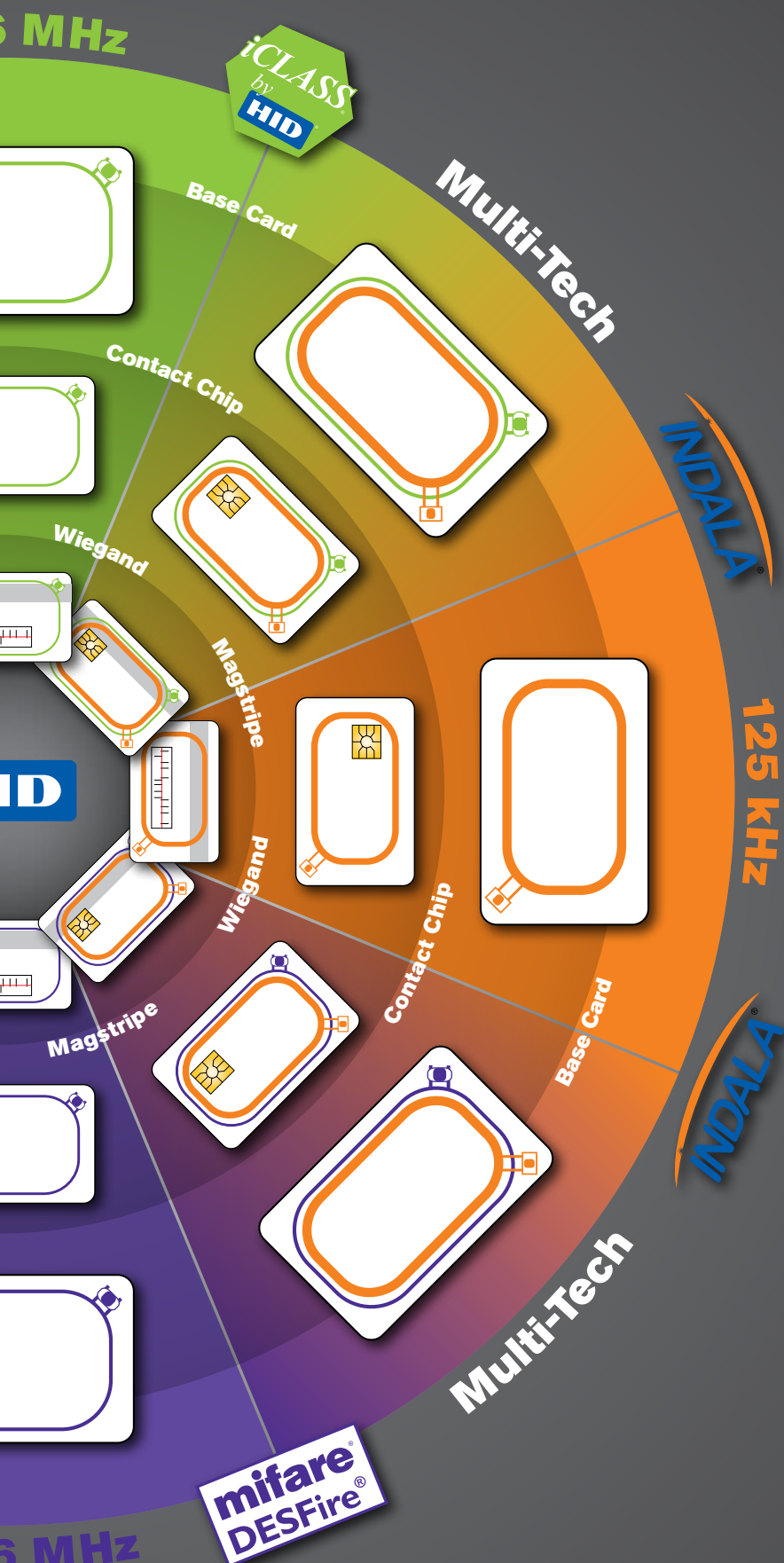


Multi-Technology Card

Seamlessly upgrade from existing magnetic stripe, proximity and/or Wiegand readers and cards to a contactless smart card system.

Implement multiple applications requiring diverse technologies with a single credential.








Base Technology

iCLASS	13.56 MHz
MIFARE/DESFire	13.56 MHz
HID Prox	125 kHz
Indala Prox	125 kHz

Technology Options

	Contact Chip
	Magnetic Stripe
	Wiegand

Additional Services

Go to the HID Global website (www.hidglobal.com) for HID news, updates and details about products and services. Save HID's homepage as a "Favorite" or create a folder of "Favorites" that includes some or all of the links below.



Product specifications, datasheets, ordering instructions, installation instructions and technical bulletins for Proximity and iCLASS Readers and Credentials:

www.hidglobal.com/products

Document Library offers a wide range of marketing literature for all product lines and technologies: www.hidglobal.com/documents/

Details regarding ways to use iCLASS contactless smart cards with HID's Application Partners: www.hidglobal.com/partners

Product Selector Tool:
www.hidglobal.com/selector/

Basic Card Format Information:
www.hidglobal.com/cardformat

Detailed description of the Corporate 1000 Program:
www.hidglobal.com/corp1000

Online Order Status:
www.hidglobal.com/order

Check out HID's e-Learning website:
www.hidtraining.com

This is just some of the information that can be found at the HID website. Feel free to explore the site to find out how much information is available at your fingertips.

How to Order Guide

To make it easier for our customers to order cards and readers, HID has updated the How to Order Guides (HTOG) for proximity, magnetic stripe, and iCLASS® products. The pages of the HTOG provide a new format that should make it much easier for you to place orders correctly. These documents can be found here:

How to Order Guide Link:

www.hidglobal.com/htog

Just choose the HTOG you need from the menu. Please be sure to take a look at this handy new tool!

HID has also implemented a change to the external number location on our “thin” card offerings. The external number was previously located on the rear of the card in the upper left-hand corner. This number has been moved to the lower right-hand corner on the rear of the card. If your card has a magnetic stripe, the external number is below the magnetic stripe. In addition, due to the incorporation of an order identification number, the string of printed external numbers is longer.

Customers will receive the following benefits from these changes:

- The relocation of the card number will provide more “clear area” that can be used for the printing of a return address or other information on the rear of the card.
- The order identification number will help us to trace particular card orders. This will be useful when customers require information about:
1) the format of the card, 2) the type of card numbering (matching, non-matching, etc.), or 3) the card numbers previously ordered.

The green light always
meant access.

Now it means
access to even more.

Access Solutions

Logical Access Solutions
Networked Access Solutions
Convergence Solutions

Issuance Solutions

Asure ID® Photo ID Software
 Fargo® Card Printers

Embedded Technology Solutions

HID Partner Solutions
Food and Animal
Government

Logistics Technology Solutions

Contactless Payment and
Public Transport Solutions

**HID Global, the worldwide leader in access control,
now offers a full range of solutions for secure identity.**

For years, you've counted on HID to provide innovative technology and dedicated support. Now, we've expanded our offering to include everything from the design and production of credentials to IP-based access control to embedded technologies. We believe the future of security lies in our open platforms, simple connectivity and rock-solid reliability. So no matter what secure identity solutions you need, look to HID. We're giving you the green light.



ACCESS choices.

125 kHz Proximity

Recognized as the industry standard for physical access control, HID proximity cards and readers provide a solution for security managers, dealers, integrators and OEMs. Featuring 125 kHz RF-enabled technology, HID prox products are robust, affordable and seamlessly integrate with access control systems. HID Indala 125 kHz Proximity Readers featuring FlexSecur[®] technology, provide an added level of access control system security by screening out unauthorized cards prior to sending card data to the host system.

125 kHz Proximity

pages 15-32

HID Proximity

Corporate 1000 Program

pages 33-42

Indala® Proximity

HID Proximity

125 kHz Proximity Cards and Readers



For security managers, dealers, integrators and OEMs, HID proximity cards and readers are recognized as the industry standard for physical access control. Featuring 125 kHz RFID technology, HID proximity products are robust, affordable, and seamlessly integrate with access control systems.

HID Proximity Readers



Did you know?

HID has a multilingual installation manual for ProxPoint Plus, ThinLine II, MiniProx, ProxPro II and Prox80 with instructions in English, French, German, Spanish, Portuguese, Japanese, Chinese, Korean and Russian. The manual can be downloaded from www.hidglobal.com.

ProxPoint® Plus

125 kHz value priced proximity card reader

Base Part Number • 6005, 6008

- Small sized reader features a beeper and multicolor LED which can be host and/or locally controlled
- Can mount directly on metal with no change in read range performance
- Power requirements: 5-16 VDC
- Dimensions: 3.14" x 1.70" x 0.66" (7.96 cm x 4.3 cm x 1.68 cm)
- Read Range: up to 3.0" (7.5 cm)*



(Gray, Black, Beige, White)

MiniProx®

125 kHz mullion mount proximity card reader

Base Part Number • 5365, 5368

- Power requirements: 5-16 VDC
- Dimensions: 6.0" x 1.7" x 1.0" (15.2 cm x 4.3 cm x 1.91 cm)
- Read Range: up to 5.5" (14.0 cm)*



(Gray, Black, Beige, White)

Thinline® II

125 kHz low profile proximity card reader

Base Part Numbers • 5395, 5398

- The size of most standard U.S. switch plates
- Available with Wiegand or Clock-and-Data interface
- Power requirements: 5-16 VDC
- Dimensions: 4.7" x 3.0" x 0.68" (11.9 cm x 7.6 cm x 1.7 cm)
- Read Range: up to 5.5" (14.0 cm)*



(Gray, Black, Beige, White)

* Dependent upon installation conditions and credential type



ProxPro®

125 kHz versatile proximity card reader

Base Part Numbers • 5355, 5352, 5358

- Ideal for medium-range applications
- Available with Wiegand, Serial (RS-232/RS-422) or Clock-and-Data interface
- Power requirements: 10-28.5 VDC
- Dimensions: 5.0" x 5.0" x 1.0" (12.7 cm x 12.7 cm x 2.54 cm)
- Read Range: up to 8.0" (20.5 cm)*



(Black, Beige)



ProxPro® with keypad

125 kHz keypad proximity card reader with keypad

Base Part Numbers • 5355, 5352, 5358

- Ideal for medium-range applications
- Available with Wiegand, Serial (RS-232/RS-422) or Clock-and-Data interface
- Power requirements: 10-28.5 VDC
- Dimensions: 5.0" x 5.0" x 1.0" (12.7 cm x 12.7 cm x 2.54 cm)
- Read Range: up to 8.0" (20.5 cm)*



(Black, Beige)



ProxPro® II

125 kHz new generation proximity card reader

Base Part Numbers • 5455, 5458

- Versatile Proximity Card Reader
- Optional glass mount kit available for mounting the reader behind glass
- Power requirements: 5-16 VDC
- Dimensions: 5.0" x 5.0" x 1.0" (12.7 cm x 12.7 cm x 2.54 cm)
- Read Range: up to 8.0" (20.5 cm)*



(Gray, Black, Beige, White)



MaxiProx®

125 kHz long range proximity card reader

Base Part Number • 5375

- Auto-tune allows read range to be maintained within four inches of metal
- RS-232, RS-422, and RS-485 output modes are configurable
- "Parking hold" feature ensures accurate detection of vehicles in parking lanes
- Reads all HID Formats
- Power requirements: 12 or 24 VDC (configurable)
- Dimensions: 12.0" x 12.0" x 1.0" (30.5 cm x 30.5 cm x 2.54 cm)
- Available in Wiegand or Clock-and-Data Interface
- Read Range: up to 24.0" (61.0 cm)*



(Gray)

* Dependent upon installation conditions and credential type

Did you know?

HID's ProxPass® II active vehicle tag enables convenient, hands-free parking control when used with the MaxiProx reader.



HID Proximity Readers



ProxPoint Plus®

MiniProx®

Thinline® II

ProxPro®

Base Model Number	6005B/6008B	5365E/5368E	5395C/5398C	5355A/5352A/5358A
Dimensions	3.13" x 1.7" x .66" (8.0 cm x 4.5 cm x 1.5 cm)	6.0" x 1.7" x 1.0" (15.0 cm x 4.5 cm x 2.0 cm)	4.7" x 3.0" x .68" (12.0 cm x 7.5 cm x 1.5 cm)	5.0" x 5.0" x 1.0" (12.5 cm x 12.5 cm x 2.5 cm)
Weight	3.6 oz (102 g)	7.89 oz (224 g)	7.33 oz (208 g)	9.62 oz (273 g)
Read Range	Up to 3.0" (7.5 cm)	Up to 5.5" (14.0 cm)		Up to 8.0" (20.5 cm)
Mounting	Mullion		Single-gang electrical box	Single-gang electrical box; Glass Mount Kit Available
Power Supply	5-16 VDC			10-28.5 VDC
Current Requirements	35 mA			155 mA
Termination	Pigtail	Pigtail or Terminal Strip	Pigtail	
Output Formats	Wiegand or Clock-and-Data			Wiegand, Clock-and-Data, RS-232 or RS-422
Tamper	No			Switch
Indoor/Outdoor	Both			
Warranty	Lifetime			

Comparison Chart



ProxPro® II **ProxPro® with Keypad** **EntryProx™** **MaxiProx®** **Prox80™**

5455B/5458B	5355A/5352A/5358A	4045C	5375A	5405A/5408A
5.0" x 5.0" x 1.0" (12.5 cm x 12.5 cm x 2.5 cm)		5.25" x 2.75" x 1.37" (13.5 cm x 7.0 cm x 3.5 cm)	12.0" x 12.0" x 1.0" (30.5 cm x 30.5 cm x 2.5 cm)	3.15" x 3.15" x 0.8" (8.0 cm x 8.0 cm x 2.0 cm)
13.65 oz (387 g)	9.62 oz (273 g)	11.76 oz (333 g)	50.8 oz (1440 g)	2.2 oz (63 g)
Up to 8.0" (20.5 cm)		Up to 3.0" (7.5 cm)	Up to 24.0" (61.0 cm)	Up to 5.5" (14.0 cm)
Single-gang electrical box; Glass Mount Kit Available		US or EU single gang box, wall surface, or on glass with included adhesive pads	Mount on non-metallic surfaces for optimal read range performance.	EU/Asian single-gang box
5-16 VDC	10-28.5 VDC	10-15 VDC	12 VDC or 24 VDC	5-16 VDC
40 mA	155 mA	150 mA	200/700 mA @ 12 VDC 260 mA/1.2 A @ 24 VDC	35 mA
Pigtail	Terminal Strip			Pigtail
Wiegand or Clock-and-Data	Wiegand, Clock-and-Data, RS-232 or RS-422	Wiegand	Wiegand, Clock-and-Data, RS-232, RS-422 and RS-485	Wiegand or Clock-and-Data
No	Switch		Switch	No
Both				
Lifetime				

What format do you need?

This is the question no one wants to ask or hear, but its answer is critical to program and order any credential.

What is a format?

A format is the structure of the data stored in an access control credential. Basically it is comprised of a set of binary digits – “bits” – put together a certain way to create a binary number, which is converted into a credential number by an access control system. The number of ones and zeros, and how they are put together, determines the format and ultimately the credential number.

For example: A 26-bit format (H10301) is created like this

1-1111111-0001011111101100-1 with the first set of ones (**in red**) representing the site code and the second set of ones and zeros (**in blue**) representing the credential number. The access control system sees this format as card number 6124 with a site code 255. The 26-bit format is the most common format requested by dealers and can be used by most access control systems available today. However, there are many formats available and some formats are unique to access control systems and do not work with other formats at the same time. This is why it is so important to know the format when ordering credentials.

Here is some additional information about the 26-bit format (H10301) and other formats you may have come across:

HID 26-Bit Format: H10301

General: The 26-bit format (Format number H10301) is the industry standard format, and is an open format. The sale of this format is not limited to any one company. The range of credential numbers available in this format is limited, and therefore, the potential exists for credential numbers to be duplicated. It is important to understand that HID does not insure that credential numbers will not be duplicated. HID does not control or restrict the ordering of credentials programmed with the standard 26-bit format. Convenience in ordering credentials and universal access control panel acceptance are the primary benefits of using the standard 26-bit card format.

Description: The 26-bit format consists of 255 possible facility codes. Within each facility code, there are 65,535 unique card numbers.

Sales Policy: This format can be sold to any customer.

HID Proprietary 37-Bit Format: H10302

General: In an effort to provide an open format to the industry, while simultaneously assuring that the numbers are unique and will not be duplicated, the 37-bit format was developed. Under this format, HID controls the issuing of credential numbers and does not duplicate the numbers.

Description: The 37-bit format can be used to program a wide range of unique credential numbers. Although it is available to all customers, not all access control systems can handle such a large data length format. In addition, many systems are unable to handle a format that does not have a facility code.

Sales Policy: Just like the 26-bit format, the 37-bit format can be sold to any customer. Although it is available to all customers, HID controls the numbers generated for each order. Buyers must confirm that the system that the credentials are to be used on is capable of using a 37-bit number with no facility code.

HID Proprietary 37-Bit Format with Facility Code: H10304

General: The 37-bit format with facility code differs from the 37-bit format only in that it also contains a facility code. Just like the 37-bit format without facility code, this format provides the customer with an open format in which credential numbers will not be duplicated because HID tracks the credential manufacturing process to prevent duplication.

Description: This 37-bit format has 65,535 facility codes available and over 500,000 card numbers within each facility code. Just like the 37-bit format without facility code, many systems are not capable of handling a format as large as 37 bits. In addition, many systems are not capable of handling a facility code as large as 65,535.

Sales Policy: The 37-bit format with facility code is ideal for dealers who would like to have their own format. This allows them to have the security of no credential duplication, without dependence on a system supplier for a format. This format is reserved for customers with a requirement for a large population of credentials.

Corporate 1000 Format (see the Corporate 1000 page for more details)

General: The Corporate 1000 format is a 35-bit format designed to provide large end-users with their own proprietary format. This assures them that their credentials will not be duplicated because HID reserves an exclusive Corporate 1000 format for each end user. This format also provides the end-user the freedom to work with any system and with any dealer of their choice. Some access systems are not capable of handling a 35-bit format, but as a service to the customer, many OEM's will make enhancements to their control systems to allow the use of an HID Corporate 1000 format. The end-user is offered the security and flexibility of selecting and authorizing the security dealer of his/her choice and controlling the issuance of credentials for the organization.

Description: The Corporate 1000 format is a 35-bit format with a unique Company ID Code and more than 1,000,000 available credential numbers.

Sales Policy: The Corporate 1000 format offers the end-user a large quantity of available credential numbers and is typically reserved for customers with the need or potential to badge a large number of cardholders. The Corporate 1000 format is also available to large, geographically diverse organizations with a requirement to unify the structure of their access control system around an exclusive access control card format under their control.

We hope these brief explanations help answer some of the questions you may have about formats. If you require further information, please contact us and we will work to clarify your understanding.

HID Proximity Credentials

ProxCard® II

Value priced 125 kHz proximity card

Base Part Number • 1326

- Price competitive with all other card technologies
- Thin enough to carry in a wallet or purse



ISOProx® II

125 kHz thin proximity card

Base Part Number • 1386

- Combines proximity technology and offers photo identification capability on a single card
- Graphics quality surface for use with direct image printers
- Same size and thickness as a standard credit card
- Vertical or horizontal slot punch capability

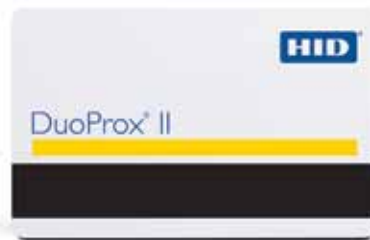


DuoProx® II

125 kHz thin proximity card with magnetic stripe

Base Part Number • 1336

- Combines proximity technology and offers photo identification capability on a single card
- Graphics quality surface for use with direct image printers
- Same size and thickness as a standard credit card
- Vertical or horizontal slot punch capability
- Magnetic stripe technology
- Thin enough to be used with standard swipe or insert readers



Smart ISOProx® II

125 kHz ISO-thin proximity card, contact smart chip embeddable (optional magnetic stripe) †

Base Part Number • 1397

- Allows a contact smart chip module to be embedded for multi-technology applications
- Graphics quality surface for use with direct image printers
- Smart DuoProx II includes magnetic stripe
- Same size and thickness as a standard credit card

† ISO 7816 compliant for embedding optional contact smart chip module. Some custom graphics can increase overall card thickness.





Smart DuoProx® II

125 kHz ISO-thin proximity card with magnetic stripe, contact smart chip embeddable *

Base Part Number • 1598

- Allows a contact smart chip module to be embedded for multi-technology applications
- Graphics quality surface for use with direct image printers
- Smart DuoProx II includes magnetic stripe
- Same size and thickness as a standard credit card

* ISO 7816 compliant for embedding optional contact smart chip module. Some custom graphics can increase overall card thickness.



MicroProx® Tag

125 kHz proximity adhesive tag

Base Part Number • 1391

- The size of a coin, the Tag easily attaches to all nonmetallic materials
- The Tag can be programmed in any HID proximity format, and is compatible with all HID proximity readers
- The Tag is RF-programmable for ease of encoding with HID's ProxProgrammer®

Did you know? You can add a MicroProx Tag to a cellphone or PDA to create a secondary credential.



ProxKey® III

Convenient 125 kHz proximity key fob

Base Part Number • 1346

- Small enough to fit on a key ring
- Universal compatibility with HID proximity readers
- Dimensions: 1.56" x 1.25" x 0.24" (3.95 x 3.18 x 0.60 cm)
- Weight: 0.14 oz (4.0g)



ProxPass® II

Long range 125 kHz proximity active vehicle tag *

Base Part Number • 1351

- Active tag for vehicle access control
- Provides up to eight-foot read range
- Solely compatible with the MaxiProx® reader and all HID card formats
- One year warranty
- Replaceable battery
- Dimensions: 3.61" x 2.66" x 0.30" (91.6 x 67.5 x 7.6 mm)

* ProxPass II features a one-year warranty and has a 2-5 year battery life, depending on usage.

HID Proximity Credentials

Did you know that most proximity, magnetic stripe and iCLASS credentials purchased from HID since Sept 1, 2003 have the sales order number printed on them?

The example below explains where to look and how to identify the sales order number on most credentials ordered today.

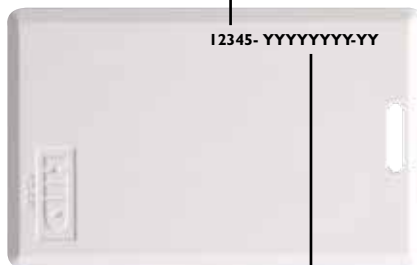
The benefits: The order identification number “Sales Order Number” enables us to help trace a past order placed with HID. This number is useful when customers need to place an order for a particular credential which requires information they may not have immediately on-hand. A call to the HID Global Customer Service at 800-872-5359 with this Sales Order Number allows us quickly to identify the style of credential including numbering (matching, non-matching, etc.), format*, site code and most importantly, the previously ordered credential numbers. So just remember this little bit of information the next time a customer comes in with a credential or calls you wanting to order something but does not know exactly what they need. With this simple printed Sales Order Number, you may have all the information you need.

COVER (FRONT)



* Proprietary format unavailable

BASE (BACK)



12345 = Card ID Number

12345- YYYYYYYY-YY

YYYYYYY-YY = Sales order number

ProxProgrammer®

Program proximity cards and tags ON DEMAND!

Base Part Number • 1050

- Programs all HID proximity cards and tags except for ProxPass active tags
- Custom formats available
- Security features for controlled operation
- Ease of programming
- Dimensions: 5.0" x 5.0" x 4.3" (12.7 x 12.7 x 10.9 cm)



ProxCard® Plus

Wiegand and 125 kHz proximity card

Base Part Number • 169

- Combines Wiegand technology, proximity technology and photo identification capability on a single card
- Graphics quality surface for use with direct image printers



Multi-Technology Transition Cards



iCLASS® Read/Write Contactless Smart Chip & Coil

Operating Frequency: 13.56 MHz read/write technology

Memory Size: 2k bit (256 Byte) with two application areas, 16k bit (2k Byte) with two or 16 application areas, or 32k bit (4k Bytes) with two or 16 application areas plus an additional 16k application area

Read Range: Up to 4.5" (11.4 cm) depending on local installation conditions and card reader selection

RF Interface: As suggested by ISO/IEC 15693

Format: Any proximity bit format up to 84 bits. For more information, use HID's iCLASS Reference Guide or visit our website at www.hidglobal.com/iclass.

Contact Smart Chip Module Guidelines

For customers who require a contact smart chip module, HID has developed partnerships with the leading providers of application software and contact smart chip modules. Depending on your specifications, HID can embed contact smart chip modules from a number of industry leaders. When application software is needed, turn to HID's partners. To learn more about HID's smart card offerings and partners, visit our website at www.hidglobal.com/smart.

MIFARE® Contactless Memory Chip and Coil

Operating Frequency: 13.56 MHz read/write technology

Memory Size: 8k bit (1k Byte)

Read Range: Up to 1.5" (3.8 cm) depending on local installation conditions and card reader selection.

RF Interface: As suggested by ISO/IEC 14443, Type A

Fixed Serial Number: Unique 32 bit.

For more information, use HID's MIFARE Reference Guide or visit our website at www.hidglobal.com.



iCLASS® Prox Card

13.56 MHz iCLASS contactless smart card and 125 kHz proximity thin card

Base Part Number • 202

- 13.56 MHz iCLASS read/write technology and HID 125 kHz proximity technology in a single ISO standard thickness card
- 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
- Meets ISO standards for thickness for use with direct image and thermal transfer printers



MIFARE®/Prox Card

125 kHz thin proximity & 13.56 MHz MIFARE® card (optional magnetic stripe)

Base Part Number • 1431

- Combine MIFARE 1K and HID proximity technologies to add smart card applications, such as cashless vending, corporate and campus applications, event ticketing, customer loyalty and photo ID cards, to access control systems
- Provides high security with mutual authentication, data encryption and unique 32-bit serial number and supports all HID proximity card formats, including Corporate 1000
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo
- Also Available in Composite Polyester / PVC and MIFARE 4K versions

HID Proximity Credentials









	ProxCard® II	ISOProx® II	DuoProx® II	Smart ISOProx II™	Smart DuoProx® II
Base Part Number	1326	1386/1586	1336/1536	1397/1597	1398/1598
Read Range: *					
ProxPoint® Plus	Up to 3.0" (7.5 cm)	Up to 2.5" (6.5 cm)			
MiniProx®	Up to 5.5" (14.0 cm)	Up to 5.0" (12.5 cm)			
Thinline® II	Up to 5.5" (14.0 cm)	Up to 5.0" (12.5 cm)			
ProxPro®	Up to 8.0" (20.5 cm)	Up to 7.0" (18.0 cm)			
ProxPro® II	Up to 9.0" (23.0 cm)	Up to 8.0" (20.0 cm)			
MaxiProx®	Up to 29.0" (74.0 cm)	Up to 20.0" (51.0 cm)			
EntryProx™	Up to 3.0" (7.5 cm)	Up to 2.5" (6.5 cm)			
Prox80™	Up to 5.5" (14.0 cm)	Up to 5.0" (12.5 cm)		Up to 2.5" (6.0 cm)	
Memory Size/ Application Area	N/A				
HID Proximity 125 kHz	Yes				
Contact Smart Chip Module Embeddable	No			Yes**	
Wiegand Strip	No				
Magnetic Stripe	No	Yes		No	Yes
Printable ***	Yes				
Standard HID Artwork	Optional				
Slot Punch	Vertical (standard)	Horizontal or Vertical Optional		Vertical Optional	
Visual Security Options	N/A	Yes			
Additional Security Options	Corp 1000				
Warranty	Lifetime				

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.

Comparison Chart

						
	iCLASS® Prox	MIFARE®/Prox	ProxCard® Plus	ProxKey® III	MicroProx® Tag	ProxPass® II
	202X/212X; 203X/213X	1431	169	1346	1391	1351
	Up to 2.5" (6.5 cm)		Up to 1.0" (2.5 cm)	Up to 1.5" (4.0 cm)	Up to 2.0" (5.0 cm)	N/A
	Up to 5.0" (12.5 cm)		Up to 2.0" (5.0 cm)		Up to 2.5" (6.5 cm)	N/A
	Up to 5.0" (12.5 cm)		Up to 1.5" (4.0 cm)	Up to 2.0" (5.0 cm)	Up to 3.0" (7.5 cm)	N/A
	Up to 7.0" (18.0 cm)		Up to 3.0" (7.5 cm)		Up to 4.0" (10.0 cm)	N/A
	Up to 8.0" (20.0 cm)		Up to 4.0" (10.2 cm)		Up to 4.5" (11.5 cm)	N/A
	Up to 20.0" (51.0 cm)		Up to 13.0" (33.0 cm)	Up to 12.0" (28.0 cm)	Up to 15.0" (38.0 cm)	Up to 8.0' (2.5 m)
	Up to 2.5" (6.5 cm)		Up to 1.0" (2.5 cm)	Up to 1.5" (4.0 cm)	Up to 2.0" (5.0 cm)	N/A
	Up to 5.0" (12.5 cm)		Up to 1.5" (3.5 cm)	Up to 2.0" (5.0 cm)	Up to 2.5" (6.0 cm)	N/A
	2k bits with two application areas; 16k bits with two application areas, 16k bits with 16 application areas; 32k bits (16k/2+16k/1), 32k bits (16k/16+16k/1)	MIFARE 1K: 1K Byte (8k bits) in 16 64-byte Sectors MIFARE 4K: 4K Byte (32k bits) in 40 Sectors: 32 sectors of 64 bytes, 8 sectors of 256 bytes.	N/A			
	Yes					
	Optional**		No			
	No		Yes	No		
	Optional			No		
	Yes			No		
	Optional			Yes	Yes	N/A
	Vertical Optional		Horizontal or Vertical Optional	Key Ring Hole	No	
	Yes			N/A		
	Corporate 1000					
	Lifetime					One Year

Corporate I000® Program

HID's Corporate I000 Program gives security professionals the ability to standardize on a "Single Card Solution," providing timely and educational information to end-users regarding the securing of people, property and assets. This program insures that advanced RFID technological solutions continue to be developed to meet the demands of ever-changing dynamics in the workplace.

HID's Corporate I000 program allows companies to standardize on one card for their access control systems. See below for answers to common questions.

HID Corporate I000 Program Frequently Asked Questions

1. What is the HID Corporate I000 Program?

The Corporate I000 Program allows HID to provide end-user customers with a 35-bit card format that is developed specifically for each individual end-user customer. Within this program, HID can provide the end-user with just over 1,000,000 individual card numbers within the assigned format. Card numbers are tracked in the manufacturing process to ensure that card numbers are not duplicated.

2. What are the benefits of the Corporate I000 Program?

- Security of the card and associated data is increased due to the customized 35-bit format that is proprietary to each individual end-user.
- HID tracks card number sequences to prevent card number duplication; the end-user is guaranteed that the card can be used on standard HID proximity card readers throughout the world. Individual employees can carry just one card to gain access to any facility in which they have been authorized. In addition, the end-user may order cards from multiple sources (as designated by the end-user) and be guaranteed that card number duplication will not occur.
- Due to the size of the available card population, the end-user is assured that cards in the desired format will be available for years to come.
- The end-user is free to choose the access control hardware/software platform that best meets the needs of individual sites, while insuring that the same HID reader and card can be used. This provides the end-user with maximum flexibility in choosing the access control system and integrator/dealer that best meets their requirements. The common component is the HID reader and card.
- The end-user has the flexibility to choose the vendor(s) that they wish to purchase cards from at any time. The end-user may choose to have one source of supply or many.

3. Does my company qualify to participate in the Corporate I000 Program?

Most end-users who request a Corporate I000 Format are accepted into the Program. Although HID doesn't have a formal list of qualifications to participate in the Corporate I000 Program, HID wants to insure that Program participants will receive a high level of value from using a Corporate I000 Format.



Those who receive value from this format include:

- End-users with multiple locations and/or decentralized decision making on card purchases.
- End-users with card and/or reader populations that are large (or are expected to grow over time). The lead-time for card delivery is not impacted by use of the Corporate I000 Format. No matter which HID format is used, lead times are based on the card to be purchased.

4. How long does it take to establish a Corporate I000 Format?

Once the completed Corporate I000 Request and Authorization Form is received by HID, it will take up to five (5) working days to establish the format. The end-user and the sponsoring system integrator/dealer or OEM will receive the assigned format number and a copy of the format via FedEx® from HID.

5. Are there any costs associated with participating in the Corporate I000 Program?

There is no charge for development of the Corporate I000 Format and initial set-up of the end-user in the Program. Once you determine that you wish to participate in the Program, you will complete the authorization forms and return them to HID. The end-user's systems integrator/dealer is charged a nominal fee for card management and card number tracking by HID. Please check with your systems integrator/dealer to determine what impact, if any, this will have on your card purchase price.

6. How do I enroll to participate in the Corporate I000 Program?

To enroll in the program, simply complete the Corporate I000 Format Request Form and the Corporate I000 Change and Authorization Form. These forms are available on the HID website at www.hidglobal.com.

If you need assistance completing the form, please contact HID at (949) 598-1600 or (866) 607-7339.

Corporate I000® Program

7. Can the Corporate I000 Format be programmed into any HID proximity card?

The assigned Corporate I000 Format can be programmed into any HID card or key fob. Please consult the How To Order Guide on HID's website or check with your systems' integrator/dealer to determine which proximity credential best meets your needs.

8. Is there a specific part number associated with the use of the Corporate I000 Format?

There is no special part number. When ordering cards, order the part number for the card you want. Then, simply indicate that the cards are to be programmed in Corporate I000 Format HXXXXXX, using the next number up. (The Corporate I000 Format number, HXXXXXX, will be a letter and five numbers. This will be assigned once your individual Corporate I000 Format is established.)

The HID direct customer who is ordering the cards will be aware of the need to put a separate line item on their P.O. that is associated with programming the cards in the Corporate I000 Format.

9. The end-user is currently using HID proximity technology but with another bit format. Will the existing cards be compatible with the Corporate I000 Format?

When using HID cards in a bit format other than the 35-bit format, you have the option of replacing all cards at one time or transitioning into the program. The existing cards will not be compatible with the Corporate I000 Format unless reprogrammed.

If you choose to transition into the program, there are a few constraints of which you need to be aware:

- At an existing site that is using a card format other than a 35-bit format, it is important to determine if the existing access control hardware/software platform has the ability to manage multiple card formats simultaneously. In other words, can the system manage two or more bit formats simultaneously? If not, any system users with access to the site would need to be: (1) re-badged with a card in the new format; or (2) the access control hardware/software platform would need to be upgraded to allow for the use of multiple bit formats simultaneously.
- At any site, it is important to verify that the access control hardware/software being used or proposed for use can manage a 35-bit card format. There are some older platforms in use that do not have this capability. There are also an extremely limited number of newer platforms with similar limitations.
- If the existing system can handle multiple formats, it is also imperative that you confirm that the system can handle the same card number within multiple formats.

Technical Overview

10. With Card Number 100 and a 26-bit format with Card Number 100, will the system “see” the two cards as different numbers?

Many systems “see” cards in different formats with the same number. If this is the case, identify the highest card number used on the existing system. HID will then block these numbers from being used to ensure that the card numbers do not appear to be duplicates.

11. Why does HID ask me to provide a card start number? Why would I use any number other than the number 1?

If you plan to use two or more bit formats simultaneously on the same access control hardware/software configuration, there may be an issue with duplicate card numbers.

For example, assume that the current format in use is a 26-bit format with a facility code of 100. The existing card numbers in use range from 1 to 20,000. The plan is to transition to a 35-bit format over time. This means that the existing hardware/software configuration will be reading and managing two bit formats simultaneously.

Two cards are to be entered into the system. These are:

- A 26-bit format card, facility code 100, and card number 25
- A 35-bit format card, company ID code 150, and card number 25

It is possible that the access control hardware/software configuration will report both of these cards as card number 25. Although the cards have different bit formats and facility/company ID codes, the system may not differentiate based on the same card number being used.

For this reason, many end-users choose to start their card numbering above the highest card number currently in use. If you are not sure of the highest card number in use and a 26-bit format is in use, it is safe to use a card start number of 66,000.

12. I have other technical questions not answered here. What should I do?

You may call HID at (866) 607-7339 and ask for Technical Support.



It's not our goal to
deliver cards in 48 hours.

It's our standard.



**HID Priority Plus™ combines our unrivaled
know-how with our unmatched can-do.**



We know that when you order new
credentials, it's not about stocking up, it's
about security. That's why we have HID
Priority Plus Credentials Service guaranteeing

the shipment of 100 to 1,000 standard credentials, Prox or iCLASS®
technology, within 48 hours anywhere in the United States and Canada.
The reason we do it is simple – we can. No one manages more
technologies, makes more credentials or has a longer track record. And,
of course, every credential comes with a lifetime warranty from your
trusted source, HID.



hidglobal.com

ACCESS service.

Indala® Proximity

125 kHz Proximity Cards and Readers



High-quality Indala Proximity Readers deliver outstanding and consistent performance with intelligent programming technology, uniform core modules, and a range of stylish bezel designs. Indala proximity readers are available in Wave, Curve, Arch, and Linear styles in a variety of colors for the ultimate choice.

Exclusive FlexSecur® Security Technology

All HID Indala 125 kHz Proximity Readers feature FlexSecur® technology, which provides an added level of access control system security through a verification process at the reader. Unique to the HID Indala product line, FlexSecur® screens out unauthorized cards prior to sending card data to the host system.

Indala® Proximity Readers

Did you know?

Exclusive Indala FlexSecur password-protected security, between card and reader, screens out unauthorized cards before sending card data to the host system.

Mullion (Slim) Readers

125 kHz proximity card reader (603 core module)

Base Part Number • FP-0500A

- The Mullion Reader can be mounted on any wall where limited space is an issue or where a slim, modern look is preferred to a wallswitch-size reader
- The Mullion Reader is ideal for mounting on door frames
- Suitable for indoor or outdoor use
- Read range up to 5.0" (12.5 cm)



Arch, Linear, Curve, Wave

Arch and Linear*



Black, Grey, White, Beige
*Linear- Black, Beige

Curve



Black

Wave



Black, Blue
(Dark Grey Background)

Wallswitch Readers

125 kHz proximity card reader (603 core module)

Base Part Number • FP-0500A

- The Wallswitch reader is similar in size to most US switch plates
- Wallswitch reader can be mounted on a single gang box
- Suitable for indoor or outdoor use
- Read range up to 5.0" (12.5 cm)



Arch, Linear, Curve, Wave

Arch and Linear*



Black, Grey, White, Beige

Curve



Black

Wave



Black, Blue
(Dark Grey Background)

Classic Readers

125 kHz proximity card reader (603 core module)

Base Part Number • FP-0500A

- Uniquely designed to replace a Wiegand Reader
- Dimensions are the same as the Classic Wiegand Swipe reader. Mounting holes match
- Ideal for transitioning existing Wiegand users to proximity
- Read range up to 5.0" (12.5 cm)



Linear

Linear



Black

Indala® Proximity Readers



Arch, Wave

Mid-Range Readers

125 kHz proximity card reader (610 core module)

Base Part Numbers • FP-0200A and FP-0200S (Serial)

- The Mid-Range reader can be mounted on both US-style single and double gang boxes
- Suitable for indoor and outdoor use
- The larger size reader gives a longer read range than the Mullion or Wallswitch readers, while offering the same modern design in bezel choices
- Read range up to 12.0" (30.5 cm)

Arch



Black, Grey, White, Beige

Wave



Black, Blue
(Dark Grey Background)



Arch

Long-Range Reader

125 kHz proximity card reader (620 core module)

Base Part Numbers • ASR-620++

- Suitable for both indoor and outdoor use
- Matches the Indala "Arch" design
- Compatible with all Indala 125 kHz cards, tags, and readers
- Read range up to 26.0" (66.0 cm)



Black

Heavy-Duty PinProx Keypad Readers

Base Part Numbers • FP5071B Black (8 Bit Burst or Buffered)

• FP5077B Beige (8 Bit Burst or Buffered)

- Sleek, modern design
- Designed to mount on a wall box or a flat surface
- Rugged construction (fully potted) PC/ABS Copolymer material is virtually indestructible and vandal resistant
- Read range up to 4.0" (10.0 cm)



Black

Membrane Keypad Readers

Base Part Numbers • FP5061B Black (8 Bit Burst or Buffered)

• FP5067B Beige (8 Bit Burst or Buffered) • FP5061M 3 X 4 Matrix, Black • FP5067M 3 X 4 Matrix, Beige

- Designed to mount on a standard USA-type single gang box
- Keypad transmits either buffered Wiegand data or a 3 X 4 matrix output
- Factory or Field Programmable
- Read range up to 4.0" (10.0 cm)



Black, Beige

Indala® Proximity Readers



Wallswitch Readers



Classic Readers



Mullion (Slim) Readers

Base Model Number

603 Core Module
FP-0500A

Dimensions

Arch
4.5" x 3.0" x 0.8"
(11.5 cm x 7.5 cm x 2.0 cm)

Wave
5.5" x 3.3" x 1.1"
(14.0 cm x 8.5 cm x 3.0 cm)

Curve
5.0" x 3.8" x 1.1"
(12.5 cm x 9.5 cm x 3.0 cm)

Linear
4.6" x 3.0" x 0.9"
(11.5 cm x 7.5 cm x 2.5 cm)

2.3" x 5.3" x 0.8"
(6.0 cm x 13.5 cm x 2.0 cm)

Arch
4.5" x 1.7" x 0.8"
(11.5 cm x 4.5 cm x 2.0 cm)

Wave
5.5" x 1.7" x 1.1"
(14.0 cm x 4.5 cm x 3.0 cm)

Curve
4.9" x 1.7" x 1.1"
(12.5 cm x 4.5 cm x 3.0 cm)

Linear
5.5" x 1.7" x 0.8"
(14.0 cm x 4.5 cm x 2.0 cm)

Weight Range

5.05-5.84 oz (143-166 g)

5.12 oz (145 g)

4.94-5.84 oz (140-166 g)

Read Range

Up to 5.0" (12.5 cm)

Mounting

Single-gang electrical box

Replaces HID Classic
Wiegand Swipe reader

Mullion

Power Supply

4-16 VDC

Current Requirements

65 mA

Termination

Pigtail

Output Formats

Wiegand, Clock-and-Data, Serial TTL (requires use of BIL 232/422 Module)

Tamper

No

Indoor/Outdoor

Both

Warranty

Lifetime

Comparison Chart



Mid-Range Readers



Long-Range Reader



Heavy-Duty PinProx Keypad Readers



Membrane Keypad Readers

610 Core Module FP-0200A and FP-0200S (Serial)	620 Core Module ASR-620XX	FP5071B Black or FP5077B Beige	FP5061B - Black, 8-bit burst/buffered FP5067B - Beige, 8-bit burst/buffered FP5061M - Black, 3x4 matrix FP5067M - Beige, 3x4 matrix
5.0" x 5.0" x 1.0" (12.5 cm x 12.5 cm x 2.5 cm)	11.2" x 11.2" x 1.8" (28.5 cm x 28.5 cm x 4.5 cm)	4.7" x 2.9" x 1.1" (12.0 cm x 7.5 cm x 3.0 cm)	4.5" x 3.0" x 0.7" (11.5 cm x 7.5 cm x 1.5 cm)
14.16-15.28 oz (401-433 g)	47.04 oz (1.33 kg)	13.44 oz (381.02 g)	7.08 oz (200.58 g)
Up to 12.0" (30.5 cm)	Up to 26.0" (66.0 cm)	Up to 4.0" (10.0 cm)	
Single or double gang box	Non-ferrous wall surface (or use 3.0" spacer on or near ferrous surface)	Single-gang electrical box	
4-16 VDC	12-24 VDC	4-16 VDC	
117 mA	1.0A/750 mA	75 mA	
Pigtail	Terminal Strip	Pigtail	
Wiegand, Clock-and-Data, Serial TTL (requires use of BIL 232/422 Module)	Wiegand, Clock-and-Data	Wiegand, Clock-and-Data, Serial TTL (requires use of BIL 232/422 Module)	
No			
Both			
Lifetime			

Indala[®] Proximity Credentials

FlexISO[®] Card

FlexISO is a credit-card thin access credential that comes with a graphics-quality surface on both sides.

Base Part Number • FPIISO

- ISO 7810/7811 Compliant
- Can be combined with a magnetic stripe, bar code, a multitude of smart chips, and MIFARE
- PVC card surface optimized for dye-sublimation printing



FlexISO[®] XT Card

FlexISO's unique composite formulation enhances the structural integrity of the card, providing additional protection of the core electronics.

Base Part Number • FPIXT

- ISO 7811/7813 Compliant
- PVC card surface optimized for dye-sublimation printing
- High durability. Great for applications that require magnetic stripe and/or barcode transactions



FlexCard[®]

Ideal for applications which require a robust card that is flexible and lightweight.

Base Part Number • FPCRD

- Vertical design makes it well-suited for a badge
- Can accept a variety of ID badge overlays
- Competitively priced



FlexTag[™]

Innovative Indala FlexTag transforms a plastic ID badge into a proximity credential.

Base Part Number • FPTAG

- Effortlessly upgrade from magstripe, or add prox to your smart card by simply attaching the small, circular FlexTag to your existing card
- The FlexTag also adheres to any non-metallic device, such as a cell phone or PDA, to instantly create a proximity badge



FlexKey[®]

Contemporary design enables the FlexKey to be easily attached to a key ring, badge clip, or badge lanyard.

Base Part Number • FPKEY

- FlexKey's rugged double-sealed construction is built to withstand harsh operating environments
- By adding a company logo, the FlexKey can be customized for vacation resorts, locker rooms, health spas, apartment buildings, and club houses, as well as commercial offices where photo IDs are not required



Indala® Proximity Credentials



MIFARE®/Prox (Indala) Card

The Indala Proximity and MIFARE contactless card combines smart card technology with the benefits of proven Indala proximity technology.

Base Part Number • FPMIF FlexISO Proximity and MIFARE Card

Base Part Number • FPMSC FlexISO Proximity, MIFARE, and Smart Card

- ISO 14443, 7810 Compliant
- PVC card surface optimized for dye-sublimation printing
- Ideal for applications such as access control, cashless vending, public transportation, airline ticketing, customer loyalty, and photo ID cards
- Sixteen securely-separated data sectors enable multiple applications and support future growth



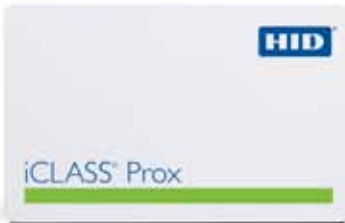
DESFire®/Prox (Indala) Card

Upgrade to the benefits of 13.56 MHz contactless smart card technology by combining DX DESFire and Indala proximity technologies in a single card.

Base Part Number • DXISO FlexISO Proximity and DESFire Card

Base Part Number • FPDXI FlexISO Proximity, DESFire and Smart Card

- ISO 14443, 7810 Compliant
- PVC card surface optimized for dye-sublimation printing
- 4K Bytes (32,768 bits) of dynamic memory arranged in easy-to-define application folders and data files
- DX DESFire data can be encrypted with the highly secure Data Encryption Standard (3DES) algorithm, making it ideal for high-performance, high-security applications



iCLASS® Prox Card

Combines the benefits of HID iCLASS 13.56 MHz contactless smart card technology and Indala 125 kHz proximity technology in a single card.

Base Part Number • 202X-IND FlexISO-iCLASS Card

Base Part Number • 203X-IND FlexISO-iCLASS Embeddable Card

- ISO 15693, 14443B Compliant
- PVC card surface optimized for dye-sublimation printing
- 2K bits (256 Bytes) or 16K bits (2K Bytes) memory options Multiple, securely separated files enable numerous applications, including the HID standard access control data
- iCLASS technology ensures high security with mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write capabilities



ProxSmith Programmer System

Base Part Number • AFP – 1000+

- Multiple output formats enable flexibility in design of host interface protocols
- Encryption, password protection, and user access levels for uncompromised security in programming
- Lockable blocks prevent overwrite of fixed data stored on cards

Indala Proximity® Credentials



FlexCard®



FlexISO®



FlexISO® XT



**FlexISO®
MIFARE®**





Base Part Number	FPCRD	FPISO	FPIXT	FPMXI
Read Range: *				
Wallswitch Reader	Up to 5.0" (12.0 cm)	Up to 5.0" (12.0 cm)	Up to 4.0" (10.0 cm)	
Classic Reader	Up to 5.0" (12.0 cm)			
Mullion (Slim) Reader	Up to 5.0" (12.0 cm)			
Mid-Range Reader	Up to 12.0" (30.0 cm)			
Long-Range Reader	Up to 25.0" (63.0 cm)	Up to 26.0" (66.0 cm)		Up to 24.0" (61.0 cm)
Heavy-Duty PinProx Keypad Reader	Up to 3.75" (9.5 cm)			
Membrane Keypad Reader	Up to 4.0" (10.0 cm)			
Memory Size/ Application Areas	N/A			1k Byte (8k bits) or 4k Bytes (32k bits) MIFARE 1k: memory arranged in 16 64-byte Sectors MIFARE 4k: memory arranged in 40 Sectors: 32 sectors of 64 bytes, 8 sectors of 256 bytes
Indala Proximity 125 kHz	Yes			
Contact Smart Chip Module Embeddable	No	Optional**		
Wiegand Strip	No			
Magnetic Stripe	No	Optional		
Printable ***	Yes			
Standard HID Artwork	Optional			
Slot Punch	Vertical	Horizontal or Vertical optional		Vertical optional
Visual Security Options	Yes			
Additional Security Options	FlexEnterprise			
Warranty	Lifetime			

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.

Comparison Chart

			
FlexISO® DESFire™	FlexISO® iCLASS®	FlexTag™	FlexKey®
FPDXI	202X-IND	FPTAG	FPKEY
Up to 4.0" (10.0 cm)		Up to 3.0" (7.0 cm)	Up to 2.0" (5.0 cm)
Up to 5.0" (12.0 cm)		Up to 3.0" (7.0 cm)	Up to 2.0" (5.0 cm)
Up to 5.0" (12.0 cm)		Up to 3.0" (7.0 cm)	Up to 2.0" (5.0 cm)
Up to 12.0" (30.0 cm)		Up to 7.0" (17.0 cm)	
Up to 24.0" (61.0 cm)		Up to 14.0" (35.0 cm)	Up to 16.0" (40.5 cm)
Up to 3.75" (9.5 cm)		Up to 1.75" (4.5 cm)	Up to 3.5" (9.0 cm)
Up to 4.0" (10.0 cm)		Up to 3.0" (7.0 cm)	Up to 3.5" (9.0 cm)
4k Bytes (32k bits)	2k bit (256 Byte) card – 2 application areas 16k bit (2k Byte) – 2 or 16 application areas 32k bit (4k Byte) card – 16k bit in 2 or 16 application areas plus 16k bit user configurable.	N/A	
Yes			
Optional ^{1**}		No	
No			
Optional		No	
Yes		No	
Optional		No	Yes
Vertical optional		No	Keyring
Yes		N/A	
FlexEnterprise			
Lifetime			

Long-standing history.



With a rock-solid future.

Indala is now a part of HID Global, and our technology and service are still all Indala.

For 20 years, Indala's strong track record in 125 kHz proximity cards and readers and dedicated service has turned first-time customers into long-time clients, and given Indala the second largest installed base in the industry. And now that we've added the engineering, sales support and resources of HID, the future looks even brighter. Rock on.

hidcorp.com



ACCESS choice.

13.56 MHz Contactless

Experience in developing card technologies puts HID Global in a unique position to play a critical role in the evolution and adoption of smart card technology. HID's market-leading, flexible, high-frequency product lines demonstrate the company's commitment to support 13.56 MHz technologies. Our open architecture iCLASS and SmartID offerings make up the industry's broadest range of open standard contactless smart card products, available from over 40,000 resellers worldwide.

13.56 MHz Contactless

pages 43-62

iCLASS[®]

HID Connect[®]

iCLASS Elite

pages 63-76

SmartID[™]

FlexSmart[®]

MIFARE[®]/DESFire[®]



Optimized to make physical access control more powerful, iCLASS® 13.56 MHz read/write contactless smart card technology provides versatile interoperability and supports multiple applications such as biometric authentication, cashless payment and PC log-on security.

iCLASS smart cards and readers make access control more powerful and more versatile, offering enhanced security through encryption and mutual authentication. At the same time, iCLASS is user-friendly, delivering the convenience, affordability and reliability of contactless technology for which HID is known worldwide.

Imagine an affordable, single-card, contactless solution that allows you to not only read data securely and quickly, but also to securely write data to the card for many applications. You have imagined iCLASS by HID.



Did You Know?

- ▶ There is an iCLASS Clamshell card at the same price as the ProxCard II?
- ▶ iCLASS Reader installation is identical to Prox?
- ▶ iCLASS costs no more than Prox, often even less?

Prox and iCLASS® Comparisons



Many are familiar with HID's proximity reader and card technology. However, HID's iCLASS contactless smart card technology may not be as well known. In short, iCLASS is the next generation of proximity.

Establishing the similarities between the two technologies provides a basis for outlining the differences. The HID access control application information programmed on an iCLASS chip is the same information that is programmed on a proximity chip. That information includes a facility code and card number in a specific HID format. HID proximity readers read HID formats from HID proximity cards, and iCLASS readers read HID formats from HID iCLASS cards. HID proximity readers and iCLASS readers produce a Wiegand protocol output to the access control panel. An HID proximity card with format H10301 (standard 26-bit format), facility code 20 and card number 1,000 would look the same to an access control panel as an iCLASS card with the same format, facility code, and card number. Therefore, the way the two technologies work from a basic access control standpoint is identical. Both card technologies use HID formats and both reader technologies produce a Wiegand protocol output.

“In short, iCLASS is the next generation of Prox.”



The main differences between proximity and iCLASS lie in the additional capabilities provided by iCLASS. These include:

Encrypted Communication

The communication between an iCLASS reader and card is encrypted using a secure algorithm so the transaction between the card and reader cannot be “sniffed” and replayed to a reader. The encryption protocol uses a combination of diversified keys, unique 64-bit card serial numbers and mutual card and reader authentication.

Capability to Add Other Applications

The iCLASS chip not only stores HID access control information, it also has memory space available for other applications. iCLASS cards are currently available with 2k bit, 16k, and 32k bit memory capacities, and depending on the amount of memory available and the number of memory areas, iCLASS cards can serve as multi-application credentials that can be used for many purposes. Since the memory can securely store any kind of information, applications for iCLASS include biometrics, secure computer/network authentication, health record management, time and attendance, digital cash (cafeteria & vending) and many, many more.

For details regarding smart cards, visit this link:

www.hidglobal.com/documents/HIDsmartcardsForAC_wp_en.pdf

For details regarding HID iCLASS application partners, visit this link:

www.hidconnect.com

iCLASS® Readers

iCLASS® R10

Contactless Smart Card Reader

Base Part Number • 6100, 6108, 6109

- Slim design is perfect for metal mullions or any other space-limited installation
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Choice of Pigtail or Terminal Strip
- Dimensions: 4.0" x 1.9" x 0.9" (10.3 cm x 4.8 cm x 2.3 cm)
- Read Range: up to 3.25" (8.25 cm)**



FIPS 201 Approved. Call for details **800-872-5359**



iCLASS® R15

Contactless Smart Card Reader

Base Part Number • 6140, 6142, 6148, 6149

- Slim design is perfect for metal mullions or any other space-limited installation
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Choice of Pigtail or Terminal Strip
- Dimensions: 6.0" x 1.9" x 0.9" (15.3 cm x 4.8 cm x 2.3 cm)
- Read Range: up to 3.5" (8.89 cm)**



FIPS 201 Approved. Call for details **800-872-5359**



iCLASS® R30

Contactless Smart Card Reader

Base Part Number • 6110, 6112, 6118, 6119

- EU/Asian Back Box
- Provides Wiegand or Clock-and-Data output
- Choice of Pigtail or Terminal Strip
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Dimensions: 3.3" x 3.3" x 0.9" (8.4 cm x 8.4 cm x 2.3 cm)
- Read Range: up to 4.0" (10.2 cm)**



FIPS 201 Approved. Call for details **800-872-5359**



* FeliCa requires iCLASS Transit Reader.

** Dependent upon installation conditions and credential type



FIPS 201 Readers are designed for government agencies and contractors.

HID's FIPS 201 readers are GSA approved and included in the U.S. General Services Administration (GSA) FIPS 201 Approved Products List. Additionally, these readers read all of HID's family of iCLASS contactless smart cards. Contact HID for Order Guides.



iCLASS® R40

Contactless Smart Card Reader

Base Part Number • 6120, 6122, 6128, 6129

- U.S./EU/Asian Back Box
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Choice of Pigtail or Terminal Strip
- Dimensions: 4.8" x 3.3" x 1.0" (12.2 cm x 8.4 cm x 2.4 cm)
- Read Range: up to 4.25" (10.8 cm)**



(Black, Gray)

FIPS 201 Approved. Call for details **800-872-5359**



iCLASS® RK40

Contactless Smart Card Keypad Reader

Base Part Number • 6130, 6132, 6138, 6139

- Dual-factor authentication with keypad
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Choice of Pigtail or Terminal Strip
- Illuminated keypad
- Dimensions: 4.8" x 3.3" x 1.1" (12.2 cm x 8.5 cm x 2.8 cm)
- Read Range: up to 4.0" (10.2 cm)**



(Black, Gray)

FIPS 201 Approved. Call for details **800-872-5359**



iCLASS® RKL55

Contactless Smart Card LCD Keypad Reader

Base Part Number • 6170, 6172, 6178

- LCD guides user through reader usage
- Dual factor authentication with keypad
- Provides Wiegand or Clock-and-Data output
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201
- Terminal strip only
- Dimensions: 6.1" x 4.2" x 4.5" (15.6 cm x 10.6 cm x 3.7 cm)
- Read Range: up to 4.0" (10.2 cm)**



(Black)



iCLASS® R90 Long Range Reader

Contactless Smart Card Reader

Base Part Number • 6150

- Long read range distance (up to 18 inches or 45 centimeters)
- Reads all HID iCLASS credentials
- "Parking Hold" feature allows connection to a loop detector to ensure accurate detection of vehicles in parking lanes
- With a multicolor LED and beeper which can be controlled internally or at host
- Two R90 units can operate one meter apart for "HI-LO" truck and car installations
- 12-24 VDC
- Terminal Strip only
- Dimensions: 12.0" x 12.0" x 1.25" (30.48 cm x 30.48 cm x 3.175 cm)
- Read Range: up to 18.0" (45.7 cm)**



(Black)

* FeliCa requires iCLASS Transit Reader.

** Dependent upon installation conditions and credential type

FIPS 201 Approved. Call for details **800-872-5359**



iCLASS® Readers/Writers

Did You Know?

iCLASS Readers can read
MIFARE and DESFire Card
Serial Numbers (CSN).

iCLASS® RW100

Contactless Smart Card Reader/Writer

Base Part Number • 6101

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- Mullion mount
- Offers read/write application to iCLASS credentials
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Dimensions: 4.0" x 1.9" x 0.9" (10.3 cm x 4.8 cm x 2.3 cm)
- Read Range: up to 3.25" (8.25 cm)*



(Black, Gray)



iCLASS® RW150

Contactless Smart Card Reader/Writer

Base Part Number • 6141

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- Mullion mount
- Offers read/write application to iCLASS credentials
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Dimensions: 6.0" x 1.9" x 0.9" (15.3 cm x 4.8 cm x 2.3 cm)
- Read Range: up to 3.5" (8.9 cm)*



(Black, Gray)



iCLASS® RW300

Contactless Smart Card Reader/Writer

Base Part Number • 6111

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- EU/Asian Back Box Size
- Offers read/write application to iCLASS credentials
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Also provides a standard Wiegand output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Dimensions: 3.3" x 3.3" x 0.9" (8.38 cm x 8.38 cm x 2.3 cm)
- Read Range: up to 4.0" (10.2 cm)*



(Black, Gray)



* Dependent upon installation conditions and credential type



iCLASS® RW400

Contactless Smart Card Reader/Writer

Base Part Number • 6121

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- U.S./EU/Asian Back Box
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Offers Read/Write application to iCLASS credentials
- Ideal for access control, health records time and attendance and digital cash
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Dimensions: 4.8" x 3.3" x 1.0" (12.2 cm x 8.4 cm x 2.4 cm)
- Read Range: up to 4.25" (10.8 cm)*



(Black, Gray)



iCLASS® RWK400

Contactless Smart Card Keypad Reader/Writer

Base Part Number • 6131

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- U.S./EU/Asian Back Box
- Present a card and use a PIN number for dual verification of identity
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Terminal Strip only
- Dimensions: 4.8" x 3.3" x 1.1" (12.2 cm x 8.5 cm x 2.8 cm)
- Read Range: up to 4.0" (10.2 cm)*



(Black, Gray)



RWKL550 Smart Card Reader

Contactless Smart Card LCD Keypad Reader/Writer

Base Part Number • 6171

- Store data remotely on iCLASS card for time and attendance, biometric applications and much more
- LCD guides user through reader usage
- Dual-factor authentication with keypad
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Terminal strip only
- Dimensions: 6.1" x 4.2" x 4.5" (15.6 cm x 10.6 cm x 3.7 cm)
- Read Range: up to 4.0" (10.2 cm)*



(Black)

* Dependent upon installation conditions and credential type

iCLASS® Biometric Readers



bioCLASS™ is HID's iCLASS family of biometric products.

Using 13.56 MHz contactless smart card technology, bioCLASS products provide users with new options for supporting multi-authentication of identity.

Combine a contactless card presentation with a fingerprint biometric or use a personal identification number (PIN) number along with a contactless card presentation.

The bioCLASS products provide three levels of fingerprint verification. During the enrollment process, the RKLB57 will guide the user to place their finger on the sensor. The fingerprint template is collected at the unit and immediately transferred to the cards. During the enrollment process, the fingerprint template is stored **ONLY** on the card; it is never transmitted to an external host. During verification at the door, the LCD graphical display will assist the user with instruction about finger placement on the biometric sensor.

bioCLASS™ BIO500

Fingerprint Biometric Verification Module

Base Part Number • 6190

- Fingerprint biometric module for the RWKLB575
- Centered finger pad offers ease-of-use for right-or left handed individuals
- Location of pad is compliant with ADA standards
- Dimensions: 8.2" x 4.2" x 2.3" (20.8 cm x 10.6 cm x 5.8 cm)



(Black)



bioCLASS™ RKLB57

Contactless Smart Card Biometric Reader

Base Part Number • 6180, 6188

- Reads fingerprint template from iCLASS card and verifies against live finger
- Provides fingerprint enrollment facility
- LCD guides user through biometric authentication and reader usage
- Three-factor authentication with fingerprint and keypad
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Reads all HID iCLASS and ISO 14443/15693 compatible (CSN) credentials
- Terminal strip only
- Dimensions: 8.5" x 4.2" x 2.3" (21.4 cm x 10.6 cm x 5.8 cm)
- Read Range: up to 4.0" (10.2 cm)*



(Black)



bioCLASS™ RWKLB575

Contactless Smart Card Biometric Reader/Writer

Base Part Number • 6181

- Reads fingerprint template from iCLASS card and verifies against live finger
- Allows developers to remotely administer enrollment process from enrollment software
- LCD guides user through biometric authentication and reader usage
- Three-factor authentication with fingerprint and keypad
- Provides a bi-directional RS232, RS485, USB or UART connection to a PC or microcontroller
- Terminal strip only
- Dimensions: 8.5" x 4.2" x 2.3" (21.4 cm x 10.6 cm x 5.8 cm)
- Read Range: up to 4.0" (10.2 cm)



(Black)



Card Programmers

The iCLASS® CP400 and CP575A Card Programmers are designed for on-site programming of access control data, Personal Identification Number (PIN) codes and user data onto HID iCLASS cards. They allow HID proximity formats, keypad PIN codes and user data fields to be programmed directly into iCLASS contactless smart cards. This enables the system manager to stock configured cards and program cards on demand when new cardholders are added to the system. To ensure security of the format and cards, an iCLASS Card Programmer license is required.

The iCLASS CP400 Card Programmer includes a desktop reader/writer, CD-ROM with programming software and documentation, personalization diskette, universal power supply and serial cable.

The iCLASS CP575A Card Programmer adds fingerprint template programming capability for use with the bioCLASS reader. The iCLASS CP575A includes a desktop reader/writer, CD-ROM with programming software and documentation, personalization diskette, universal power supply and USB cable.



CP400 Card Programmer **Contactless Smart Card Programmer**

Base Part Number • 3150

- Stores PIN codes on the card for use with the iCLASS RK40, RWK400, RKL550, RWKL550, RKL575 and RWKL575
- Programs four, 16-character user data fields on the card, that can later be read on the programmer
- Reads any iCLASS card when the authentication key is pre-stored in the programmer
- Prints card numbers directly onto the cards using a PVC card printer or on standard Avery labels
- Maintains a secure, encrypted database on a personal computer
- Personalized for individual customers (proprietary formats are restricted to authorized users)



CP575 Card Programmer **Contactless Smart Card Programmer**

Base Part Number • 6251

- Stores PIN codes on the card for use with the iCLASS RK40, RWK400, RKL550, RWKL550, RKL575 and RWKL575
- Keypad readers configured for local PIN verification
- Programs four, 16-character user data fields on the card, that can later be read on the programmer
- Creates site-specific, high-security authentication keys that are programmed into both readers and cards
- Creates reader configuration cards to program new authentication keys into readers and change other reader operating parameters
- Reads any iCLASS card when the authentication key is pre-stored in the programmer
- Prints card numbers directly onto the cards using a PVC card printer or on standard Avery labels
- Maintains a secure, encrypted database on a personal computer
- Personalized for individual customers (proprietary formats are restricted to authorized users)
- CP575A Card Programmer provides USB user interface capability

iCLASS® Reader Specifications



R10/RW100



R15/RW150



R30/RW300

Base Model Number	R10: 6100/6108/6109 RW100: 6101	R15: 6140/6142/6148/6149 RW150: 6141	R30: 6110/6112/6118/6119 RW300: 6111
Dimensions	4.04" x 1.9" x .9" (10.5 cm x 5.0 cm x 2.5 cm)	6.1" x 1.9" x 0.9" (15.5 cm x 5.0 cm x 2.5 cm)	3.3" x 3.3" x .85" (8.5 cm x 8.5 cm x 2.0 cm)
Weight	3.2 oz (91 g)	3.2 oz (91 g)	4.0 oz (113 g)
Read Range	Up to 3.25" (8.5 cm)	Up to 3.5" (9.0 cm)	Up to 4.0" (10.0 cm)
Mounting	Mullion	Mullion, Fits footprint of HID MiniProx reader.	Standard EU/Asian back boxes
Power Supply	5-16 VDC, Linear supply recommended		
Current Requirements	55/116 mA	55/112 mA	55/121 mA
Termination	R10: Pigtail or Terminal Strip RW100: Terminal Strip	R15: Pigtail or Terminal Strip RW150: Terminal Strip	R30: Pigtail or Terminal Strip RW300: Terminal Strip
Output Formats	R10: Wiegand, Clock-and-Data RW100: Wiegand, RS232, RS485, USB, UART	R15: Wiegand, Clock-and-Data RW150: Wiegand, RS232, RS485, USB, UART	R30: Wiegand, Clock-and-Data RW300: Wiegand, RS232, RS485, USB, UART
FIPS 201 Certification	Yes		
Tamper	Optical		
Indoor/Outdoor	Both		
Warranty	Lifetime		



R40/RW400



RK40/RWK400



R90



**RKL55/
RWKL550**



**RKLB57/
RWKL575**

R40: 6120/6122/6128/6129 RW400: 6121	RK40: 6130/6132/6138/6139 RWK400: 6131	6150	RKL55: 6170/6172/6178 RWKL550: 6171	RKLB57: 6180/6188 RWKL575: 6181
4.8" x .3.3" x .95" (12.0 cm x 8.5 cm x 2.0 cm)	4.8" x 3.3" x 1.1" (12.0 cm x 8.5 cm x 2.5 cm)	12.0" x 12.0" x 1.25" (30.5 cm x 30.5 cm x 3.0 cm)	6.14" x 4.17" x 1.48" (15.5 cm x 10.5 cm x 4.0 cm)	8.34" x 4.17" x 2.3" (21.0 cm x 10.5 cm x 4.0 cm)
8.8 oz (250 g)	10.0 oz (283 g)	60.0 oz (1.86 kg)	12.69 oz (360 g)	17.12 oz (485 g)
Up to 4.25" (11.0 cm)	Up to 4.0" (10.0 cm)	Up to 18.0" (45.5 cm)	Up to 4.0" (10.0 cm)	
U.S./EU/Asian back box		Reader body fits onto base mounting plate. Cover fits over reader body, secured with four screws.	U.S./EU/Asian back box	
5-16 VDC, Linear supply recommended		12-24 VDC reverse voltage protected, Linear supply recommended	9-12 VDC	
R40: 55/121 mA RW400: 55/132 mA	RK40: 85/116 mA RWK400: 85/132 mA	420/1300 mA @ 12 VDC 210/700 mA @ 24 VDC	RKL55: 160/250 mA RWKL550*: 160/250 mA	RKLB57: 270 mA/328 mA RWKL575*: 270 mA/328 mA
R40: Pigtail or Terminal Strip RW400: Terminal Strip	RK40: Pigtail or Terminal Strip RWK400: Terminal Strip	Terminal Strip		
R40: Wiegand, Clock-and-Data RW400: Wiegand, RS232, RS485, USB, UART	RK40: Wiegand, Clock-and-Data RWK400: Wiegand, RS232, RS485, USB, UART	Wiegand, Clock-and-Data	RKL55: Wiegand, Clock-and-Data RWKL550: Wiegand, RS232, RS485, USB, UART	RKLB57: Wiegand, Clock-and-Data RWKL575: Wiegand, RS232, RS485, USB, UART
Yes		No		
Optical		Switch	Optical	
Both			Indoor	
Lifetime			One Year	

* Add 40 mA current draw for USB expansion module. Add 10 mA current draw for RS232, RS485 or UART expansion modules

iCLASS® Credentials



All iCLASS Credentials Feature:

- iCLASS credentials come as cards, tags, and keys.
- 13.56 MHz read/write contactless smart card technology, providing high-speed, reliable communications with superior data integrity.
- The ability to store biometric templates and useful data using read/write capabilities.
- Communications between card and reader that include high security with mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write.
- Advanced key management systems to reduce the risk of compromised data or duplicated cards.
- Supports all existing HID card formats, including Corporate 1000.
- The ability to factory or field* program any existing HID format into the secure HID access control application area.
- A choice of 2k bits (256 Bytes), 16k bits (2k Bytes) or 32k bits (4k Bytes) memory capacity.
- Lifetime warranty provided for all iCLASS credentials!

**Consult factory for availability of the iCLASS Card Programmer, CP400*

iCLASS® Card

13.56 MHz Contactless Smart Card

Base Part Number • 200

- 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
- Magnetic Stripe optional



iCLASS® Embeddable Card

13.56 MHz Contactless Smart Card

Base Part Number • 201*

- Designed to be embedded with an optional contact smart chip module of your choice
- Enables contact smart chip applications to be added to iCLASS cards in a single ISO standard thickness 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



iCLASS® Prox Card

13.56 MHz Contactless Smart Card and 125 kHz

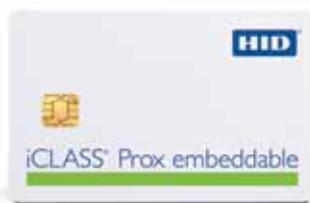
Proximity Card

Base Part Number • 202

- 13.56 MHz iCLASS read/write technology and 125 kHz proximity technology in a single ISO standard thickness card
- Enables contactless smart card applications to be added to an existing proximity technology access control system
- 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



** Base part number does not include contact chip*



iCLASS® Prox Embeddable Card

13.56 MHz Contactless Smart Card With 125 kHz Proximity

Base Part Number • 213

- Designed to be embedded with an optional contact smart chip module of your choice
- Enables contact smart chip applications to be added to iCLASS cards in a single ISO standard thickness 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
- Optional Contact Smart Chip Module



iCLASS® Clamshell Card

Value Price 13.56 MHz Contactless Smart Card

Base Part Number • 208

- Provides contactless smart card technology in a cost-effective card package
- An ABS shell construction that provides durability in harsh environments



iCLASS® Wiegand Card

13.56 MHz Contactless Smart Card and

Wiegand Technology

Base Part Number • 204

- Offers a one-card solution combining iCLASS and Wiegand technologies
- Ideal for companies transitioning from Wiegand technology to an HID iCLASS-based system
- Offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID
- Card thickness is suitable for use with all Wiegand readers, and most direct image printers and magnetic stripe readers (nominal thickness .037")
- Optional magnetic stripe



iCLASS® Key II

Convenient 13.56 MHz Contactless SmartKey

Base Part Number • 205

- 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



iCLASS® Tag

13.56 MHz Contactless Smart Tag With Adhesive Back

Base Part Number • 206

- Provides the convenience of HID's iCLASS contactless read/write technology in a small disk-shaped package
- Seamlessly upgrade from Wiegand, magnetic stripe, barium ferrite, or proximity technologies by adhering the Tag to an existing access card*
- 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 cell phones, PDAs, and other non-metallic objects



(Black, Gray)

* Consult HID for specific guidelines for actual placement. Not for use with cards used with tractor feed (full insertion) readers.

iCLASS® Credential Specifications




iCLASS Meets Industry Standards

The development team at the Identification Technology Group of ASSA ABLOY has utilized advanced semiconductor technology based on the 13.56 MHz frequency to meet numerous ISO standards. iCLASS readers can read data from cards compliant with the following standards:

- ISO 15693 - read/write; 2k bits (256 Bytes), 16k bits (2k Bytes), and 32k bits (4k Bytes)
- ISO 14443, Type A - read only; MIFARE® (serial number)*
- ISO 14443, Type B2 - read/write; 2k bits (256 Bytes), 16k bits (2k Bytes), and 32k bits (4k Bytes)

Meeting the standards above is important in smart card technology because they enable many equipment and application developers to work with this technology to create a broader range of uses for the card.

*The R90 is an ISO 15693 reader and will not read MIFARE cards

	 iCLASS® Clamshell	 iCLASS® Card	 iCLASS® Card Embeddable
Base Part Number	2080	200X/210X	201X/211X
Read Range: *			
R10/RW100	Up to 2.5" (6.5 cm)	Up to 3.25" (8.0 cm)	
R30/RW300	Up to 3.0" (7.5 cm)	Up to 4.0" (10.0 cm)	
R40/RW400	Up to 4.5" (10.0 cm)	Up to 4.25" (11.0 cm)	
RK40/RK400	Up to 4.0" (9.0 cm)	Up to 3.5" (9.0 cm)	
Memory Size/ Application Areas	2k bits with two areas	2k bits with two application areas; 16k bits with two application areas (16k/2); 16k bits with 16 application areas (16k/16); 32k bits (16k/2+16k/1); 32k bits (16k/16+16k/1)	
HID Proximity 125 kHz	No		
Contact Smart Chip Module Embeddable	No		Yes**
Wiegand Strip	No		
Magnetic Stripe	No	Optional	
Printable ***	Yes		
Standard HID Artwork	Optional		
Slot Punch	Vertical Included	Vertical Optional	
Visual Security Options	N/A	Yes	
Additional Security Options	Corp 1000, iCLASS Elite		
Warranty	Lifetime		

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.

Did You Know...

...the same card data formats used in HID Prox are all available in iCLASS?



iCLASS® Prox



iCLASS® Prox Embeddable



iCLASS® Wiegand



iCLASS® Key II



iCLASS® Tag

	202X/212X	213X	204X	205X	206X
	Up to 3.25" (8.0 cm)		Up to 3.0" (7.5 cm)	2" (5.1 cm)	
	Up to 4.0" (10.0 cm)		Up to 3.0" (7.5 cm)	2.2" (5.9 cm)	
	Up to 4.25" (11.0 cm)		Up to 4.5" (11.5 cm)	2.7" (7.0 cm)	
	Up to 3.5" (9.0 cm)		Up to 2.5" (6.5 cm)	2" (5.1 cm)	
	2k bits with two application areas; 16k bits with two application areas (16k/2); 16k bits with 16 application areas (16k/16); 32k bits (16k/2+16k/1); 32k bits (16k/16+16k/1)				
	Yes		No		
	No	Yes**	No		
	No		Yes	No	
	Optional			No	
	Yes			No	
	Optional			Yes	Yes
	Vertical Optional		Horizontal or Vertical Optional	Key Ring Hole	No
	Yes			N/A	
	Corporate 1000, iCLASS Elite				
	Lifetime				

HID Connect®

HID Connect® is the hardware and software partnership arm of HID Global Corporation. Focused on positioning HID as a platform provider to help expand and support the new “ecosystem” that requires a single credential for many day-to-day applications, HID Connect promotes products, applications and solutions that use HID 13.56 MHz iCLASS®, MIFARE® or DESFire® and 125 kHz proximity technologies.

By combining HID Global’s strength in all aspects of secure credentialing with Partner solutions, HID can extend the use of a single-secure credential to cost-effectively and conveniently solve additional business problems throughout an enterprise. The ultimate goal of HID Connect is to help end-users “do more than open the door” with their HID cards.

HID Connect Partners offer a variety of hardware, software and full solutions that incorporate proximity, iCLASS or MIFARE technologies. To find a Partner solution, simply “click” on the solution category above. Or, if you need assistance in location an HID Connect Partner, please send an e-mail to hidconnect@hidglobal.com.

Help HID Global build a cohesive development community around HID’s contactless technologies, creating a network for industry collaboration, future development, and partnership opportunities. To become an HID Connect Development Partner, please contact your local HID representative or send an e-mail to hidconnect@hidglobal.com.





Ask the Expert

Q: Is it hard to use a smart card for access control?

A: It depends on what you mean by “smart card”. You see, there are two different types of smart cards. A “contactless” smart card is very easy to use for access control. A “contact” smart card is not typically used for that purpose.

Contact Smart Cards:

These are what most people think of when they hear the term “smart card.” They have a microchip and a copper interface leaf imbedded into the surface of the card. These cards must be inserted into a thin reader slot to be used, a process that works well in an office environment, but is not ideal for outdoor or industrial applications. Furthermore, contact smart card readers are a prime target for vandalism. Once vandalized, the reader typically must be replaced.

Advantages:

Contact smart cards do have some very significant advantages compared to contactless smart cards. They are available in much greater memory capacity, up to 2 Mb (2 megabits), and with more powerful microprocessors. Large memory files like high-resolution photographs and complete medical histories can fit on contact smart cards. Certain cryptographic processes used in high-security financial and legal applications can only be accomplished by utilizing contact smart cards. But for access control use, you’ll typically want to use contactless smart cards.

Contactless Smart Cards:

A contactless smart card is essentially the same as any regular proximity card. It can be read (and written to) several inches from the reader, and it works really fast. Contactless cards can be programmed with a conventional card data format like 26-bit Wiegand. A compatible reader can read that data and send it on to a controller. The controller can’t tell any difference compared to data from a regular proximity (or even Wiegand swipe) card.

Advantages:

For access control purposes, there is little comparison. The many benefits of proximity technology have been widely accepted since 1974. Contactless smart cards used for access purposes share all of the same advantages including great ease of use, high reliability, and long life of both cards and readers. In addition, the contactless smart cards can be used to carry many types of additional binary data including the following:

- Biometric (fingerprint, hand geometry, etc.) templates
- Complex PC and network passwords for logical access security
- Formatted medical data for university, military and industrial applications.
- Money for vending, cafeteria payment, laundry and telephone use, etc.
- Building system and lighting control
- And many more

Different types of contactless cards and different memory sizes control how many and which kinds of applications can be combined on one card. The access control benefits, however, remain the same regardless of what other functions are managed by the card. None of these features can be accomplished by conventional access cards of any kind.

Choosing a contactless smart card solution for an access system gives the end user an almost unlimited range of future applications that can co-exist on the same card. The fact that smart card readers are compatible with virtually all access control panels, just like Wiegand or Prox readers, gives them a universal appeal. For any new or completely renovated access system, contactless smart cards are the way to go.

iCLASS Elite

As an extension of the HID Corporate I000 Program, HID is pleased to introduce the iCLASS Elite Program, offering end-users the highest level of card-to-reader security available today!



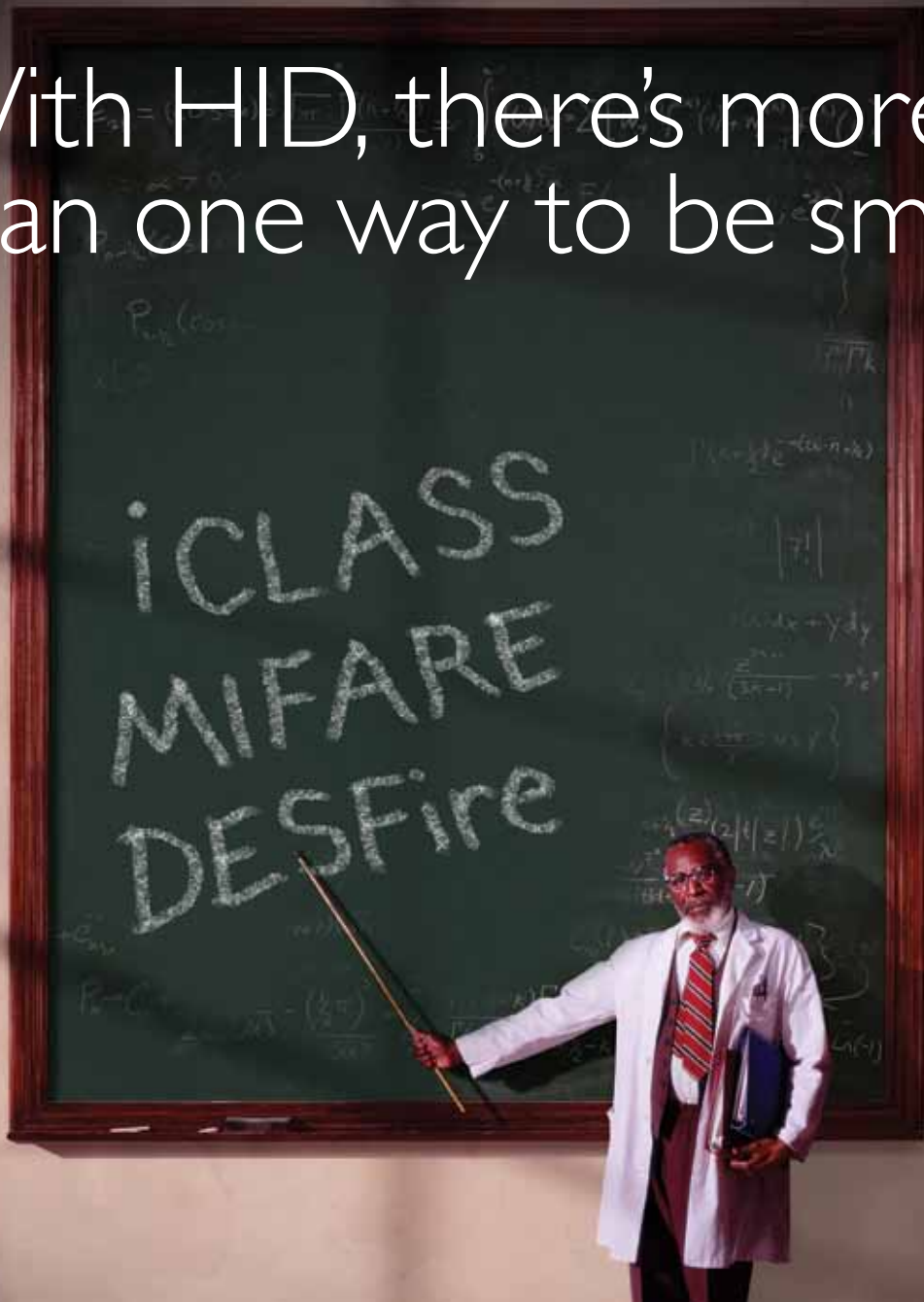
When using iCLASS contactless smart card technology, the iCLASS Elite Program provides security professionals the ability to standardize on a “single credential” solution that can be used for all applications and locations throughout the enterprise worldwide. The mutual authentication and encryption features of the technology enhance the “peace of mind” offered by this solution.

Similar to the Corporate I000 Program, the iCLASS Elite Program offers end-users their own proprietary key. This key protects the card number within the access control application of the card. Cards and readers are programmed in the HID factory to match. Only matching cards and readers will work together, further prohibiting cards and readers from foreign populations to enter and function within the company’s Elite secured population.

Combined with HID’s Corporate I000 Program, the iCLASS Elite program offers customers multiple layers of card to reader security.

**Consult factory for availability.*

With HID, there's more than one way to be smart.



We think 13.56 MHz smart technology is great, but an open approach is even better.

13.56 MHz smart technology offers an unbeatable combination of enhanced security along with the ability to support other applications such as time and attendance, cashless vending and more. That's why we offer product lines featuring all of the leading smart solutions – iCLASS®, MIFARE® and DESFire® – as well as multi-technology cards and readers that can help make any migration smoother and easier. All of the solutions have their strong points, but we like to think the strongest point of all of them is the expertise and support of HID.

hidglobal.com



ACCESS technology.

SmartID™ Readers

13.56 MHz MIFARE® and DESFire® Contactless Cards and Readers



SmartID Contactless Smart Card Readers are completely compatible with the requirements of ISO 14443A (MIFARE/ DESFire) and are a perfect choice for access control, data storage solutions and multiple applications. The open architecture and highly customizable platform enables adaptation to an assortment of card population scenarios. Adding to the security and flexibility of tailored ISO 14443 applications, a wide variety of form factors and multi-factor authentication product is available, including keypad and biometric readers. Choose from a full range of HID's 13.56 MHz offerings encompassing the industry's broadest range of open standard contactless smart card products, available from over 40,000 resellers worldwide.



Did You Know...

The SmartID reader offers the ultimate choice in interoperability and programmability. Designed for a wide variety of applications from entry level access control to secure ID management, the reader family is completely configurable for every access control application challenge.

SmartID Mullion - S10

ISO 14443A Contactless Smart Card Reader

Base Part Number • 8030

- Reads data from any Smart Card including HID MIFARE
- Can be configured for almost any custom card population
- Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
- Reader firmware loaded from smart card makes upgrades and maintenance painless
- Dimensions: 5.59" x 1.81" x 0.98" (14.2 x 4.6 x 2.5 cm)
- Read Range: up to 1.5" (3.8 cm)
- Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount



Silver

FIPS 201 Approved. Call for details **800-872-5359**



SmartID Mullion Keypad - SK10

ISO 14443A Contactless Smart Card Keypad Reader

Base Part Number • 8031

- Reads data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
- Can be configured for almost any custom card population
- Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
- Keypad offers dual-factor authentication
- Reader firmware loaded from smart card makes upgrades and maintenance painless
- Dimensions: 5.59" x 1.81" x 0.98" (14.2 x 4.6 x 2.5 cm)
- Read Range: up to 1.5" (3.8 cm)
- Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount



Silver

FIPS 201 Approved. Call for details **800-872-5359**



SmartTOUCH™ Biometric Readers



SmartTOUCH - SB10

ISO 14443A Contactless Smart Card Biometric Reader

Base Part Number • 800-8050*

- Biometric authentication in conjunction with data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
- Can be configured for almost any of custom card population
- Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
- Field fingerprint enrollment at the reader for simplicity and convenience
- Dimensions: 7.58" x 1.99" x 1.69" (19.25 x 5.05 x 4.3 cm)
- Read Range: up to 1.18" (3.0 cm) MIFARE
- Additional accessory (p/n 500-8095) turns reader into single-gang electrical mount



Silver



SmartTOUCH Keypad - SBK10

ISO 14443A Contactless Smart Card Biometric Keypad Reader

Base Part Number • 800-8055*

- Biometric authentication in conjunction with data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
- Can be configured for almost any custom card population
- Three-factor authentication finger + card + pin
- Field fingerprint enrollment at the reader for simplicity and convenience
- Dimensions: 7.58" x 1.99" x 1.69" (19.25 x 5.05 x 4.3 cm)
- Read Range: up to 1.18" (3.0 cm) MIFARE
- Additional accessory (p/n 500-8095) turns reader into single-gang electrical mount



Silver

* Multiple base part numbers available depending upon application.

SmartID™ Card Programmers

The SmartTOOLS™ desktop card programmer suite is a flexible, highly secure and stylish Contactless Smart Card programmer, ideal for customers that require access card programming and/or reader customization for new or existing installations. The SmartTOOLS software suite offers two software packages:

ProxBurn CP100, part number 501-7753

ReaderTOOLS CP101, part number 501-7756

ProxBurn is a card programming suite for MIFARE cards that allows the user to program 32-bit Wiegand card numbers and flexible Clock-and-Data card formats up to 10 digits using site specific security keys for MIFARE and DESFire cards. ReaderTOOLS is a SmartID reader configuration tool. ReaderTOOLS allows users to create configuration cards that customize the behavior of any SmartID reader. Using an existing key management process, ReaderTOOLS enables customers to secure readers with site specific keys known only to the site manager. After creation of configuration cards, site managers configure readers by placing the configuration card in front of the reader. After configured, SmartID readers will read, process and output custom programmed MIFARE data.

ProxBurn and ReaderTOOLS are both available for Windows® 2000/XP/2003. Software licenses and/or NDAs are required for use.

ProxBurn - CP100

Card Programmer

Base Part Number • 501-7753

- Programs 32-bit Wiegand card numbers (MIFARE only)
- Programs up to 10 Clock-and-Data ABA digits
- Programs access cards with site specific security keys
- RS232 connection to computer

ReaderTOOLS - CP101

Configuration Card Programmer

Base Part Number • 501-7756

- Programs SmartID Reader Configuration Cards
- Allows users to setup secure site specific reader keys
- Enables users to configure a multitude of reader settings
- Configure any SmartID reader
- USB connection to computer



SmartID™ Reader Specifications



	SmartID™ Mullion S10	SmartID™ Mullion Keypad SK10	SmartTOUCH™ SB10	SmartTOUCH™ Keypad SBK10
Base Model Number*	8030	8031	800-8050	800-8055
Dimensions	5.59" x 1.81" x 0.98" (14.0 cm x 4.6 cm x 2.5 cm)		7.58" x 1.99" x 1.69" (19.5 cm x 5.0 cm x 4.5 cm)	
Weight	4.3 oz (122 g)		5.5 oz (157 g)	
Read Range	Up to 1.5" (3.8 cm)		Up to 1.18" (3.0 cm)	
Mounting	Mullion or Single-gang electrical box**			
Power Supply	5-24 VDC		8-24 VDC regulated	
Current Requirements	68 mA / 82 mA (@12 VDC)		208 mA / 417 mA (@12 VDC)	
Termination	Terminal			
Output Formats	Wiegand, Clock-and-Data RS232, RS485, RS422			
Tamper	Option			
Indoor/ Outdoor	Both		No	
Additional Technologies	N/A		Fingerprint Sensor	
Warranty	Lifetime		One Year	

* Multiple base part numbers available depending upon application

** Single-gang mounting requires purchase of additional accessory

FlexSmart® Readers



HID FlexSmart® MIFARE® and DESFire® Contactless Smart Card Readers are completely compatible with the requirements of ISO 14443A and are a perfect choice for access control, data storage solutions and multiple applications.

The open architecture, flexible, highly secure and stylish contactless smart card reader series augments HID's market-leading iCLASS® product line and features three models: FlexSmart MIFARE HID Format Secure Reader (6075), FlexSmart MIFARE Custom Reader (6076), and FlexSmart DESFire Custom Reader (6077). This HID family of contactless smart card products provides options for customers looking for either an out-of-the-box solution or requiring customizable readers. HID's 13.56 MHz offerings encompass the industry's broadest range of open standard contactless smart card products, available from over 40,000 resellers worldwide.



MIFARE® HID Format Secure Reader 6075

ISO 14443A Contactless Smart Card Series

Base Part Number • 6075

- All keys and formats are preconfigured, making installations easy
- Choose from a variety of HID formats: OEM, Corporate 1000 or 26-Bit
- Complete flexibility to read HID Sector formats and/or CSN
- HID manages all reader and card security for the customer
- Dimensions: 4.3" x 1.5" x 0.72" (10.9 cm x 3.8 cm x 1.8 cm)
- Read Range: up to 2.0" (5.0 cm)*



Wave (Black, Blue)



Arch (Black, Beige)



MIFARE® Custom Reader 6076

ISO 14443A Contactless Smart Card Series

Base Part Number • 6076

- Can be configured to read any third-party formatted cards or to develop a custom format for a new application
- ISO 14443A compatible for card interoperability
- Can read data from any MIFARE sector of the card
- Ideal for customers that require a customizable reader for new or existing installations
- Dimensions: 4.3" x 1.5" x 0.72" (10.9 cm x 3.8 cm x 1.8 cm)
- Read Range: up to 2.0" (5.0 cm)*



Wave (Blue)



Arch (Black, Beige)



DESFire® Custom Reader 6077

ISO 14443A Contactless Smart Card Series

Base Part Number • 6077

- Highly secure data transactions with Triple DES encryption
- ISO 14443A compatible for card interoperability
- Reads data from any DESFire application file on the card
- Ideal for customers that require a customizable reader for new or existing installations
- Dimensions: 4.3" x 1.5" x 0.72" (10.9 cm x 3.8 cm x 1.8 cm)
- Read Range: up to 2.0" (5.0 cm)*



Wave (Blue)



Arch (Black, Beige)



MIFARE® Reader/Writer 6055

13.56 MHz Contactless Smart Card Reader

Base Part Number • 6055

- Configurable as a MIFARE MAD, Sector or CSN Reader
- Wiegand or RS-232 Outputs
- Compatible with all HID formats
- Mounts on a single-gang electrical box for easy installation
- Dimensions: 4.7" x 3.0" x 0.68" (11.9 cm x 7.6 cm x 1.7 cm)
- Read Range: up to 2.0" (5.0 cm)*



(Black, Gray, Beige, White)

* All Read Ranges are dependent on the type of credential used.

FlexSmart® Readers

MIFARE® HID Format Secure Keypad Reader 6071

ISO 14443A Contactless Smart Card Series

Base Part Number • 6071

- Keypad enables multi-factor authentication
- Ideal for high traffic areas
- All keys and formats are preconfigured, making installations easy
- Choose from a variety of HID formats: OEM, Corporate 1000 or 26-Bit
- Complete flexibility to read HID Sector formats and/or CSN
- HID manages all reader and card security for you
- Dimensions: 4.7" x 2.9" x 1.1" (11.9 cm x 7.4 cm x 2.8 cm)
- Read Range: Up to 2.0" (5.0 cm)



MIFARE® Custom Keypad Reader 6072

ISO 14443A Contactless Smart Card Series

Base Part Number • 6072

- Keypad enables multi-factor authentication
- Completely configurable for every access control application challenge
- ISO 14443A compatible for card interoperability
- Can read data from any MIFARE sector of the card
- Dimensions: 4.7" x 2.9" x 1.1" (11.9 cm x 7.4 cm x 2.8 cm)
- Read Range: Up to 2.0" (5.0 cm)



DESFire® Custom Keypad Reader 6073

ISO 14443A Contactless Smart Card Series

Base Part Number • 6073

- Keypad enables multi-factor authentication
- The reader is completely configurable for every access control application challenge
- ISO 14443A compatible for card interoperability
- Reads data from any DESFire application file on the card
- Secure data transactions with Triple DES encryption
- Dimensions: 4.7" x 2.9" x 1.1" (11.9 cm x 7.4 cm x 2.8 cm)
- Read Range: Up to 2.0" (5.0 cm)



FlexSmart® Reader Specifications



	MIFARE® HID Format Secure Reader	MIFARE® Custom Reader	DESFire® Custom Reader
Base Model Number	6075	6076	6077
Dimensions	4.3" x 1.5" x .72" (10.9 cm x 3.8 cm x 1.08 cm)		
Weight	4.0 oz (113 g)		
Read Range	Up to 2.0" (5.0 cm)		
Mounting	Mullion base with interchangeable bezels		
Power Supply	Power Supply 9-16 VDC, Linear supply recommended		
Current Requirements	15-75 mA		
Termination	Pigtail		
Output Formats	Wiegand or Clock-and-Data		
Certifications/ Approvals	FCC Certification, Canada Certification, CE Mark (Europe), New Zealand, Australia c-Tick Pending Certifications: Taiwan, Singapore, Germany VdS, UL 294/cUL,		
Tamper	No		
Indoor/Outdoor	Both		
Warranty	Lifetime		



	MIFARE® HID Format Secure Keypad Reader	MIFARE® Custom Keypad Reader	DESFire® Custom Keypad Reader
Base Model Number	6071	6072	6073
Dimensions	4.7" x 2.9" x 1.1" (11.9 cm x 7.4 cm x 2.8 cm)		
Weight	12.0 oz (340 g)		
Read Range	Up to 2.0" (5.0 cm)		
Mounting	Single-gang electrical box		
Power Supply	Power Supply 9-16 VDC, Linear supply recommended		
Current Requirements	25 mA / 100 mA @ 12 VDC; Linear power supply recommended		
Termination	Pigtail		
Output Formats	Wiegand or Clock-and-Data		
Certifications/ Approvals	FCC Certification, Canada Certification, CE Mark (Europe), New Zealand, Australia c-Tick Pending Certifications: Taiwan, Singapore, Germany VdS, UL 294/cUL,		
Tamper	No		
Indoor/Outdoor	Both		
Warranty	Lifetime		

MIFARE®/DESFire® Credentials

MIFARE® Card

13.56 MHz Contactless Smart Card

Base Part Number • I430

- Credit card-thin MIFARE 1K ISO card provides high security with mutual authentication, data encryption and unique 32-bit serial number
- Ideal for diverse applications such as access control, cashless vending, public transportation, corporate and campus applications, event ticketing, customer loyalty and photo ID cards
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo
- Also Available in Composite Polyester / PVC, MIFARE 4K and magnetic stripe versions



MIFARE®/Prox Combo Card

13.56 MHz Contactless Smart Card

Base Part Number • I431

- Combine MIFARE 1K and proximity technologies to add smart card applications, such as cashless vending, corporate and campus applications, event ticketing, customer loyalty and photo ID cards, to access control systems
- Provides high security with mutual authentication, data encryption and unique 32-bit serial number and supports all HID proximity card formats, including Corporate 1000
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo
- Also Available in Composite Polyester / PVC and MIFARE 4K versions



DESFire® Card

13.56 MHz Contactless Smart Card

Base Part Number • I450

- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.



DESFire®/Prox Combo Card

13.56 MHz Contactless Smart Card

Base Part Number • I451

- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- True Credit Card Thickness - Use with all direct image and thermal transfer printers.





MIFARE® Key fob

13.56 MHz Contactless Smart Card

Base Part Number • I434

- High Security - MIFARE technology ensures mutual authentication, data encryption and unique 32-bit serial number.
- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- Multiple Memory Types - Available in MIFARE 1K and 4K.



DESFire® Key fob

13.56 MHz Contactless Smart Card

Base Part Number • I454

- High Security - DESFire technology includes mutual authentication, DES and triple-DES data encryption, and unique 56-bit serial number.
- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.



MIFARE® Adhesive Tag

13.56 MHz Contactless Smart Card

Base Part Number • I435

- High Security - MIFARE technology ensures mutual authentication, data encryption and unique 32-bit serial number.
- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- Multiple Memory Types - Available in MIFARE 1K and 4K.



DESFire® Adhesive Tag

13.56 MHz Contactless Smart Card

Base Part Number • I455

- High Security - DESFire technology includes mutual authentication, DES and triple-DES data encryption and unique 56-bit serial number.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- Upgrade Tool - Provides the security of DESFire contactless read/write technology in a small, disk-shaped package.

MIFARE®/DESFire® Credentials



**MIFARE®
Card**

**MIFARE® / HID Prox
Combo Card**

DESFire® Card

**DESFire® / HID Prox
Combo Card**

Base Part Number	I430: PVC 1k Card	I431: PVC 1k Card	I450: PVC Card	I451: PVC Card
	I440: PVC 4k Card	I441: PVC 4k Card	I456: Composite PET/PVC Card	I457: Composite PET/PVC Card
	I436: Composite PET/PVC 1k Card	I437: Composite PET/PVC 1k Card		
	I446: Composite PET/PVC 4k Card	I447: Composite PET/PVC 4k Card		
Read Range: *				
MIFARE	Up to 4.0" (10.0 cm)		N/A	
DESFIRE	N/A		Up to 4.0" (10.0 cm)	
HID Prox	N/A	Up to 4.5" (11.5 cm)	N/A	Up to 4.5" (11.5 cm)
Indala Prox	N/A		N/A	
Memory Size/ Application Areas	1k Byte (8k bits) or 4k Bytes (32k bits)		4k Bytes (32k bits)	
HID Proximity 125 kHz	No	Yes	No	Yes
Contact Smart Chip Module Embeddable	Yes**			
Wiegand Strip	No			
Magnetic Stripe	Optional			
Printable ***	Yes			
Standard HID Artwork	Optional			
Slot Punch	Vertical optional			
Visual Security Options	Yes			
Additional Security Options	Corp 1000			
Warranty	Lifetime			

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.



MIFARE® Key fob

DESFire® Key fob

MIFARE®
Adhesive Tag

DESFire®
Adhesive Tag

1434: 1k Key fob 1444: 4k Key fob	1454	1435: 1k Tag 1445: 4k Tag	1455
Up to 2.0" (5.0 cm)	N/A	Up to 2.0" (5.0 cm)	N/A
N/A	Up to 2.0" (5.0 cm)	N/A	Up to 2.0" (5.0 cm)
N/A			
N/A			
1k Byte (8k bits) or 4k Bytes (32k bits)	4k Bytes (32k bits)	1k Byte (8k bits) or 4k Bytes (32k bits)	4k Bytes (32k bits)
No			
No			
No			
No			
No			
Yes			
Key Ring Hole		No	
No			
Corp 1000			
Lifetime			

We speak 13.56 MHz. Fluently.



iCLASS® and SmartID® In 13.56 MHz technology, HID is talking choices. HID believes in the enhanced security and functionality of 13.56 MHz smart technology. Our iCLASS and SmartID product lines cover all the leading smart technologies, whether you're talking iCLASS, MIFARE or DESFire. And our multi-technology cards and readers are there to help you migrate at your own pace. When an access control card provides mutual authentication, and supports applications such as time and attendance, cashless vending and PC log-in security, that is one smart credential. Best of all, HID offers more than one way to get one.



ACCESS technology.

Multi-Technology

With multi-technology products from HID Global, customers have the ability to transition to contactless smart cards over time while incorporating the use of multiple card technologies within a single building or across multiple facilities. Additionally, customers can transition from disparate proximity technologies to a unified contactless smart card solution from HID Global.

Multi-Technology

pages 77-82

multiCLASS™

pages 83-88

SmartTRANS™



With our unique card technology read selection feature, customers have endless card management flexibility, with security and simplicity. The multiCLASS reader is the ultimate migration tool.

multiCLASS multi-technology card readers combine 125 kHz proximity technology and iCLASS® 13.56 MHz contactless smart card and reader technologies into a single reader. They are designed for customers who are upgrading their current card system from from HID Prox, Indala Proximity or AWID to HID iCLASS credentials or cards. Readers can also read ISO 14443A MIFARE/DESFire CSN's, FeliCa IDm's and FIPS 201 credential formats. The multiCLASS line provides a clear multi-technology migration path for the large installed bases of HID, Indala and AWID customers.

All multiCLASS access control readers have been approved by U.S. General Services Administration (GSA) as Transparent Contactless Readers for their FIPS 201 Approved Products List, allowing an agency's access control system to function properly during the transition from current card technology to the new FIPS 201 card requirements.

Recognized and honored by Access Control & Security Systems magazine as one of the Top 20 new products for 2006, the RP40 multiCLASS card reader reflects the highest level technology innovation in the security industry. multiCLASS comes with a lifetime warranty, and is now available from HID's network of distributors, OEMs, and system integrators worldwide. Only the RP40 provides true iCLASS security, the ease of Prox (HID Prox, Indala Proximity or AWID), the power of smart cards and the confidence of choosing HID, the worldwide leader in access control.

multiCLASS™ Readers

multiCLASS™ RP15 Reader

Smart Card Reader

Base Part Number • 6145, 6143, 6144

- Simple Migration from the most popular proximity technologies to iCLASS®
- Slim design is perfect for metal mullions or any other space-limited installation
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201; Reads 125KHz: HID Prox and AWID or Indala Proximity
- Pigtail only
- Dimensions: 6.1" x 1.9" x 0.9" (15.3 cm x 4.8 cm x 2.3 cm)
- Read Range: iCLASS up to 3.5" (9.0 cm), HID Prox up to 4.0" (10.0 cm)**



(Black, Gray)



multiCLASS™ RP40 Reader

Smart Card Reader

Base Part Number • 6125, 6123, 6124

- Simple migration from the most popular proximity technologies to iCLASS
- US/EU/Asian Back Box Size
- Provides Wiegand or Clock-and-Data output
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201; Reads 125KHz: HID Prox and AWID or Indala Proximity
- Pigtail only
- Dimensions: 4.8" x 3.3" x 1.0" (12.2 x 8.4 x 2.4 cm)
- Read Range: iCLASS up to 4.25" (11.0 cm), HID Prox up to 4.0" (10.0 cm)**



(Black, Gray)



multiCLASS multi-technology card readers are designed for customers upgrading their current card system from HID Prox to iCLASS® credentials. With the multiCLASS readers, the customer has the ability to transition to smart cards over time while incorporating the use of multiple card technologies within a single building or across multiple facilities.

multiCLASS™ RPK40 Reader

Smart Card Keypad Reader

Base Part Number • 6136, 6133, 6134z

- Simple migration from the most popular proximity technologies to iCLASS
- US/EU/Asian Back Box Size
- Dual factor authentication with keypad
- Low Voltage and Current Consumption (5-16 VDC @ <100 mA)
- Reads 13.56 MHz: HID iCLASS, ISO 15693 CSN, ISO 14443A (MIFARE) CSN, ISO 14443B CSN, FeliCa IDm*, and FIPS 201; Reads 125KHz: HID Prox and AWID or Indala Proximity
- Pigtail only
- Dimensions: 4.8" x 3.3" x 1.1" (12.2 x 8.4 x 2.8 cm)
- Read Range: iCLASS up to 4.25" (11.0 cm), HID Prox up to 4.0" (10.0 cm)**



(Black, Gray)



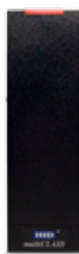
* FeliCa requires multiCLASS Transit Reader.

** Dependent upon installation conditions and credential type

Did You Know?

Simple Upgrade Installation:

Installing HID Prox to iCLASS upgrades are simple because the multiCLASS readers have the same wiring connections, same low-current consumption, and same 5 or 12 volt operation as Prox.



RP15



RP40



RPK40

Base Model Number	6145A/6143A/6144A	6125B/6123B/6124B	6136A/6133A/6134A
Dimensions	6.0" x 1.9" x 0.9" (15.3 cm x 4.8 cm x 2.3 cm)	4.8" x 3.3" x 1.0" (12.2 cm x 8.4 cm x 2.5 cm)	4.8" x 3.3" x 1.1" (12.2 cm x 8.4 cm x 2.8 cm)
Weight	5.9 oz (166 g)	8.8 oz (250 g)	9.1 oz (258 g)
Read Range	iCLASS: Up to 3.5" (9.0 cm) HID Prox: Up to 4.0" (10.0 cm) Indala Prox: Up to 2.25" (5.5 cm)	iCLASS: Up to 4.25" (11.0 cm) HID Prox: Up to 4.0" (10.0 cm) Indala Prox: Up to 2.25" (5.5 cm)	
Mounting	Mullion, Fits footprint of HID MiniProx reader.	U.S./EU/Asian back box	
Power Supply	5-16 VDC, Linear supply recommended		
Current Requirements*	55/93 mA	55/123 mA	85/169 mA
Termination	Pigtail		
Output Formats	Wiegand, Clock-and-Data		
FIPS 201 Certification	Yes		
Tamper	Optical		
Indoor/Outdoor	Both		
Additional Technologies	Reads HID Prox and AWID or Indala Proximity		
Warranty	Lifetime		

* Add 25 mA when configured with HID Prox. Add 40 mA when configured with Indala Proximity.

Multi-Technology Credentials

iCLASS® Embeddable Card

13.56 MHz Contactless Smart Card

Base Part Number • 201¹

- Designed to be embedded with an optional contact smart chip module of your choice
- Enables contact smart chip applications to be added to iCLASS cards in a single ISO standard thickness 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



iCLASS® Prox Card

13.56 MHz Contactless Smart Card

and 125 kHz Proximity Card

Base Part Number • 202

- 13.56 MHz iCLASS read/write technology and 125 kHz proximity technology in a single ISO standard thickness card
- Enables contactless smart card applications to be added to an existing proximity technology access control system
- 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



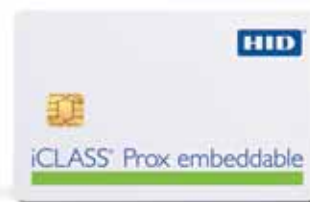
iCLASS® Prox Embeddable Card

13.56 MHz Contactless Smart Card

with 125 kHz Proximity

Base Part Number • 203

- Designed to be embedded with an optional contact smart chip module of your choice
- Enables contact smart chip applications to be added to iCLASS cards in a single ISO standard thickness 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
- Optional Contact Smart Chip Module



iCLASS® Wiegand Card

13.56 MHz Contactless Smart Card

and Wiegand Technology

Base Part Number • 204

- Offers a one-card solution combining iCLASS and Wiegand technologies
- Ideal for companies transitioning from Wiegand technology to an HID iCLASS-based system
- Offers the ability to add a magnetic stripe, barcode, anti-counterfeiting feature, custom artwork, or photo ID
- Card thickness is suitable for use with all Wiegand readers, and most direct image printers and magnetic stripe readers (nominal thickness .037")
- Optional magnetic stripe





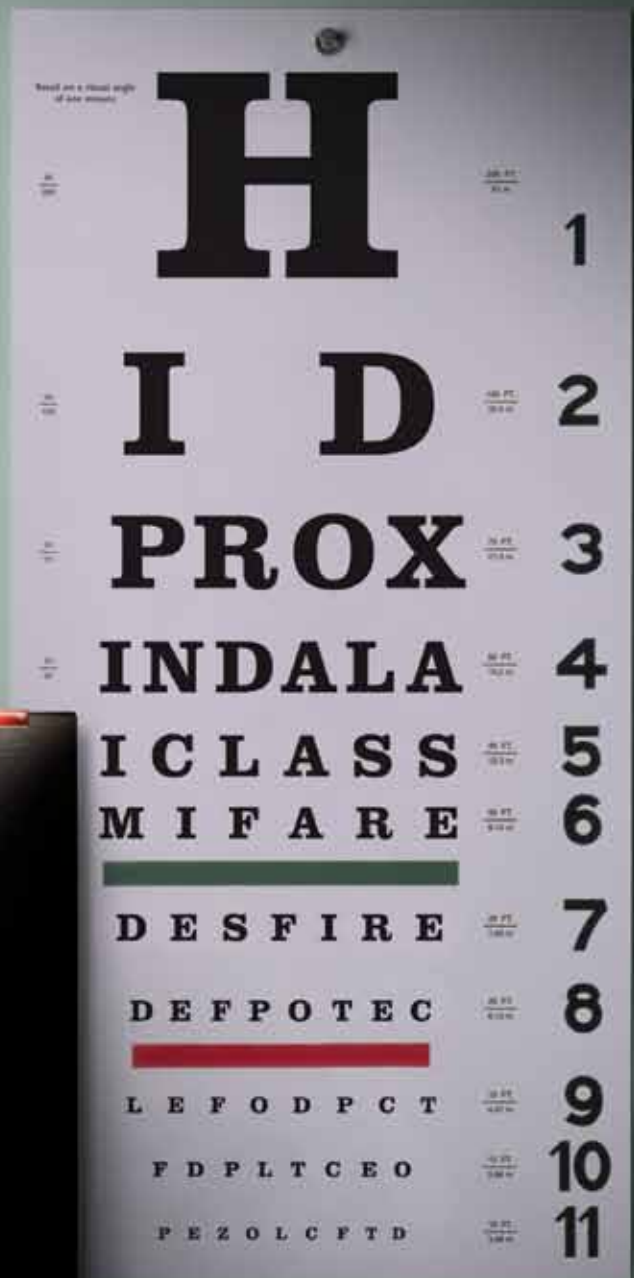
	iCLASS® Card Embeddable	iCLASS® Prox	iCLASS® Prox Embeddable	iCLASS® Wiegand
Base Part Number	201X/211X	202X/212X	203X/213X	204X
Read Range: *				
R10/RW100	Up to 3.25" (8.0 cm)			Up to 3.0" (7.5 cm)
R30/RW300	Up to 4.0" (10.0 cm)			Up to 3.0" (7.5 cm)
R40/RW400	Up to 4.25" (11.0 cm)			Up to 4.5" (11.5 cm)
RK40/RK400	Up to 3.5" (9.0 cm)			Up to 2.5" (6.5 cm)
Memory Size/ Application Areas	2k bits with two application areas; 16k bits with two application areas (16k/2); 16k bits with 16 application areas (16k/16); 32k bits (16k/2+16k/1); 32k bits (16k/16+16k/1)			
HID Proximity 125 kHz	No	Yes		No
Contact Smart Chip Module Embeddable	Yes**	No	Yes**	No
Wiegand Strip	No			Yes
Magnetic Stripe	Optional			
Printable ***	Yes			
Standard HID Artwork	Optional			
Slot Punch	Vertical Optional			Horizontal or Vertical Optional
Visual Security Options	Yes			
Additional Security Options	Corp 1000, iCLASS Elite			
Warranty	Lifetime			

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.

Reads
everything
20/20.



The HID RP40 multiCLASS Reader reads the most popular proximity cards and smart cards. It's the ultimate migration solution.

The RP40 is a multi-technology card reader that makes it easy to upgrade a proximity card system to a 13.56MHz contactless smart card technology such as HID iCLASS®. Whether you're making the transition in a single building or across multiple facilities, you can do it at your own pace, employing multiple card technologies. Unlike other "smart" card readers that only scan the serial numbers of iCLASS, the RP40 offers the enhanced security of mutual authentication and data encryption. Convenient. Flexible. Secure. The HID RP40 multiCLASS Reader brings any migration path into perfect focus.



ACCESS flexibility.

SmartTRANS™

13.56 MHz MIFARE® and DESFire® Contactless Cards and Readers



HID Global introduces its new 13.56 MHz ISO 14443 (MIFARE/DESFire) contactless smart card readers. In response to customer demand for a greater multitude of smart card reader solutions, HID Global has increased its product line of multiple-technology products. SmartID™ offers solutions in single technology 13.56 MHz (SmartID), multi-technology 13.56 MHz + 125 kHz (SmartTRANS), multi-factor 13.56 MHz biometrics (SmartTOUCH™) and keypad authentication. This new, open architecture and highly customizable reader line augments HID's market-leading, flexible, open and highly secure iCLASS product line.

By producing the SmartID multi-technology line, HID Global asserts its commitment to support 13.56 MHz technologies. The company's offerings encompass the industry's broadest range of open standard contactless smart card products, available from over 40,000 resellers worldwide.

SmartTRANS™ Readers

SmartTRANS Mullion SP10 Reader

ISO 14443A Secure Reader

Base Part Number • 8100

- Choose from a variety of reader applications, including HID MIFARE, custom MIFARE, custom DESFire and FIPS 201
- Can be configured for almost any existing or new custom card population
- Reads HID Prox (125 kHz) and AWID Cards
- Outputs data over Wiegand, Clock-and-Data, RS232, RS485 or RS422 interface
- Dimensions: 5.59" x 1.81" x 0.98" (14.2 x 4.6 x 2.5 cm)
- Read Range: MIFARE - Up to 1.5" (3.8 cm)*
HID Prox/AWID - Up to 1.3" (3.2 cm)*
- Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount



Silver

FIPS 201 Approved. Call for details **800-872-5359**



SmartTRANS Mullion Keypad SPK10 Reader

ISO 14443A Secure Reader

Base Part Number • 8101

- Choose from a variety of reader applications, including HID MIFARE, custom MIFARE, custom DESFire and FIPS 201
- Can be configured for almost any existing or new custom card population
- Reads HID Prox (125 kHz) and AWID Cards
- Keypad provides dual-factor authentication with a variety keypad output configurations
- Dimensions: 5.59" x 1.81" x 0.98" (14.2 cm x 4.6 cm x 2.5 cm)
- Read Range: MIFARE - Up to 1.5" (3.8 cm)*
HID Prox/AWID - Up to 1.3" (3.2 cm)*
- Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount



Silver

FIPS 201 Approved. Call for details **800-872-5359**



** Depends on installation environment and credential type*

Did You Know?

SmartTRANS 13.56 MHz and 125 kHz compatibility allows you to solve any site's migration issue with a broad variety of reader and card migration strategies.

SmartTRANS™ Specifications



**SmartTRANS™ Mullion
SPI0**

**SmartTRANS™ Mullion
Keypad SPK10**

Base Model Number	8100	8101
Dimensions	5.59" x 1.81" x 0.98" (14.0 cm x 4.5 cm x 2.5 cm)	
Read Range	MIFARE: Up to 1.5" (3.8 cm); HID Prox/AWID: Up to 1.3" (3.2 cm)	
Mounting	Mullion or Single-gang electrical box*	
Power Supply	5-24 VDC (reverse current protected); Linear supply recommended	
Current Requirements	79 mA / 96 mA (@12 VDC)	
Termination	Terminal	
Output Formats	Wiegand, Clock-and-Data, RS232, RS485, RS422	
Tamper	Option	
Indoor/ Outdoor	Both	
Warranty	Lifetime	

* Single-gang mounting requires purchase of additional accessory

Multi-Technology Credentials

MIFARE®/Prox Combo Card

13.56 MHz Contactless Smart Card

Base Part Number • I43I

- Combine MIFARE 1K and proximity technologies to add smart card applications, such as cashless vending, corporate and campus applications, event ticketing, customer loyalty and photo ID cards, to access control systems
- Provides high security with mutual authentication, data encryption and unique 32-bit serial number and supports all HID proximity card formats, including Corporate 1000
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo
- Also Available in Composite Polyester / PVC and MIFARE 4K versions



DESFire®/Prox Combo Card

13.56 MHz Contactless Smart Card

Base Part Number • I45I

- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- True Credit Card Thickness - Use with all direct image and thermal transfer printers.





MIFARE® / HID Prox Combo Card



DESFire® / HID Prox Combo Card

Base Part Number	I431: PVC 1k Card I441: PVC 4k Card I437: Composite PET/PVC 1k Card I447: Composite PET/PVC 4k Card	I451: PVC Card I457: Composite PET/PVC Card
Read Range: *		
MIFARE	Up to 4.0" (10.0 cm)	N/A
DESFIRE	N/A	Up to 4.0" (10.0 cm)
HID Prox	Up to 4.5" (11.5 cm)	
Indala Prox	N/A	
Memory Size/ Application Areas	1k Byte (8k bits) or 4k Bytes (32k bits)	4k Bytes (32k bits)
HID Proximity 125 kHz	Yes	
Contact Smart Chip Module Embeddable	Yes**	
Wiegand Strip	No	
Magnetic Stripe	Optional	
Printable ***	Yes	
Standard HID Artwork	Optional	
Slot Punch	Vertical optional	
Visual Security Options	Yes	
Additional Security Options	Corp 1000	
Warranty	Lifetime	

* Dependant upon installation conditions.

** Contact smart chip module not included. Ask about HID's SMARTS Program for off-the-shelf contact smart chip embedded cards.

*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.

Many Paths. One Company.



No matter where you start, HID has the flexible products and technologies to take you where you need to go.

More choices, more possibilities – that's what HID has to offer. We have credentials in all shapes, sizes and special composite formulas for maximum durability. We do specialized printing through HID Identity or our Corporate 1000 program or we can set you up with a printer and software to do your own. We offer the leading solutions in 125 kHz proximity and 13.56 MHz smart cards along with multi-technology cards and readers to let you transition at your own pace. And we're leading the way with IP-based solutions linking physical security with IT. In other words, wherever you're headed, there's a simple, affordable and reliable way to get there from HID.



ACCESS possibilities.

Networked Access Solutions

Trends towards open standards and IP convergence are expanding system capabilities as security system components and data are used for numerous business applications. HID Global's easy-to-use IP-based access control solutions bring intelligence to the door, enabling remote management and report generation via standard web browsers. HID's innovative solutions ensure the value of your investment by lowering costs and increasing your business.

Networked Access Solutions

pages 89-92

Edge Solo™

pages 93-98

VertX™

Edge™ Solo

Stand-alone, single-door IP-based access control solution



Edge Solo is HID Global's cost-effective, stand-alone, single-door IP-based access control solution. This easy-to-use solution enables remote management and report generation via standard web browser. Bringing "Intelligence to the Door", the flexible design includes an integrated iCLASS® or MultiCLASS™ reader or allows connection to any wiegand or most clock and data readers.

Unlike other stand-alone access control solutions, which are typically disconnected devices with no remote management or reporting capabilities, Edge Solo allows the end-user to have stand-alone access control functionality, in addition to remote management and report capabilities. User information, administration, door configuration and retrieval of events are done through a user-friendly, instructional web environment.

No other stand-alone access control solution can be converted to a host as quickly and easily. Customers will appreciate Edge Solo's high return on investment (ROI) due to its ability to migrate to a host-based access control system (locally or remotely managed). Through the web browser, the Edge Solo can be remotely reconfigured from stand-alone operation to a system reader. There is no need to go to the door.

Simply put, there is no other stand-alone access control solution with the flexibility and long-term return on investment of Edge Solo.

EdgePlus Solo ES400

Single door IP-based Controller

Base Part Number • 83000

- Small footprint single door, IP-based access control solution
- Provides remote management over the network via standard web browser
 - No external software required
- Languages Supported: English, French, German, Spanish, Russian, Portuguese, Italian, Korean, Chinese (Simplified), Japanese, Hindi
- Browser Security SSL 3.0 and TLS 3.1
- Use with any new or existing wiegand output reader
- 1000 users/5000 events/8 schedules
- Standardized reports including CSV export
- TCP/IP and DHCP support
- 12 VDC, 700 mA power available for external field devices and locking hardware
- Power requirements: 12 VDC external power or Built-in 802.3af Power over Ethernet (PoE)
- Dimensions: 3.3" x 4.8" x 1.5" (8.38 cm x 12.19 cm x 3.63 cm)
- Interior use only



(Black)

EdgeReader Solo ESR40

Single door IP-based controller with integrated R40 reader

Base Part Number • 83120

- Small footprint single door, IP-based access control solution
- Provides remote management over the network via standard web browser
 - No external software required
- Languages Supported: English, French, German, Spanish, Russian, Portuguese, Italian, Korean, Chinese (Simplified), Japanese, Hindi
- Browser Security SSL 3.0 and TLS 3.1
- Single piece design with integrated R40 iCLASS reader
- 1000 users/5000 events/8 schedules
- Standardized reports including CSV export
- TCP/IP and DHCP support
- 12 VDC, 600 mA power available for external field devices and locking hardware
- Power requirements: 12VDC external power or Built-in 802.3af Power over Ethernet (PoE)
- Dimensions: 3.3" x 4.8" x 2.3" (8.38 cm x 12.19 cm x 5.79 cm)
- Interior use only



(Black)

EdgeReader Solo ESRP40

Single door IP-based controller with integrated RP40 reader

Base Part Number • 83125

- Small footprint single door, IP-based access control solution
- Provides remote management over the network via standard web browser
 - No external software required
- Languages Supported: English, French, German, Spanish, Russian, Portuguese, Italian, Korean, Chinese (Simplified), Japanese, Hindi
- Browser Security SSL 3.0 and TLS 3.1
- Single piece design with integrated RP40 multiCLASS reader
- 1000 users/5000 events/8 schedules
- Standardized reports including CSV export
- TCP/IP and DHCP support
- 12 VDC, 600 mA power available for external field devices and locking hardware
- Power requirements: 12VDC external power or Built-in 802.3af Power over Ethernet (PoE)
- Dimensions: 3.3" x 4.8" x 2.3" (8.38 cm x 12.19 cm x 5.79 cm)
- Interior use only



(Black)

Edge™ Reader Specifications



ES400



ESR40 and ESRP40

Base Model Number	83000	83120/83125
Dimensions	4.8" x 3.3" x 1.5" (12.19 cm x 8.38 cm x 3.63 cm)	4.8" x 3.3" x 2.3" (12.19 cm x 8.38 cm x 5.79 cm)
Weight	6.8 oz (.195 kg)	14.7 oz (.400 kg)
Mounting	Single-gang style electrical box	
Style	Attractive UL94 polycarbonate enclosure protects components from damage and all connections are fully identified by silk-screened nomenclature.	
Card Data Formats	Supports any card data format up to 128 bits	
Hardware	32-bit RISC CPU, 100 MHz processor	
Memory	8 MB onboard Flash memory, 32 MB SDRAM, 256K SRAM	
Visual Indicators	Two LEDs indicate power/network activity and device I/O activity.	
Power Supply Requirements	<p>1 A @ 12-16 VDC maximum</p> <p>Recommended: Power is supplied using the Power over Ethernet technology available with PoE (802.3af) enabled network devices.</p> <p>Alternate: Supervised linear power supply with battery backup, input surge protection, and AC Fail and battery low contact outputs.</p> <p>Relays can be configured to supply power as follows: Available Power: The ES400 is capable of supplying a total of 700 mA to field devices. This power may be shared between a reader and one or two additional field devices. Unpowered, relay contacts are rated for 2 A @ 30 VDC</p>	<p>1 A @ 12-16 VDC maximum</p> <p>Recommended: Power is supplied using the Power over Ethernet technology available with PoE (802.3af) enabled network devices.</p> <p>Alternate: Supervised linear power supply with battery backup, input surge protection, and AC Fail and battery low contact outputs.</p> <p>Relays can be configured to supply power as follows: Available Power: The EdgeReader is capable of supplying a total of 600 mA to field devices. Unpowered, relay contacts are rated for 2 A @ 30 VDC</p>
Operating Environment	The E400 is intended for use in indoor environments that comply with the following specifications:	
Operating Temperature	32° to 122° F (0° to 50° C)	
Operating Humidity	5% to 95% relative, non-condensing	
Maximum Inputs	(1) Door Monitor, (1) Request to Exit, AC Fail, Battery Fail, Tamper	
Maximum Outputs	(1) Strike, (1) General Purpose	
Communication Ports	<p>Ethernet – 10 or 100 Mbps</p> <p>RS232 – port for Modem or connectivity to other systems.</p> <p>Reader – Wiegand, HID Clock and Data, or iCLASS RS-232</p>	<p>Ethernet – 10 or 100 Mbps</p> <p>RS232 – port for Modem or connectivity to other systems.</p>
Certifications	UL 294 Listed Access Control System Unit, CSA 205 for Canada, FCC Class B Verification, EMC for Canada, EU (CE Mark), Australia (C-Tick Mark), New Zealand, Japan	UL 294 Listed Access Control System Unit, CSA 205 for Canada, FCC Class B Verification (FCC Class A Verification for reader portion only.) EMC for Canada, EU (CE Mark), Australia (C-Tick Mark), New Zealand, Japan
Warranty	18 Months	

Cable Specifications ES400

Ethernet	300 feet (100 m) Category 5 cable	ALPHA 9504C ALPHA 9405F
Wiegand	500 feet (150 m) 9-conductor, stranded, overall shield 22 AWG	ALPHA 1299C
Input Circuits	500 feet (150 m) 2-conductor, shielded 22 AWG 18 AWG	ALPHA 1292C ALPHA 2421C
Output Circuits	500 feet (150 m) 2-conductor 22 AWG 18 AWG	ALPHA 1172C ALPHA 1897C
RS232	50 feet (15 m) 9-conductor, stranded 22 AWG	ALPHA 1299C ALPHA 58119

Cable Specifications ESR40 and ESRP40

Ethernet	300 feet (100 m) Category 5 cable	ALPHA 9504C ALPHA 9405F
Input Circuits	500 feet (150 m) 2-conductor, shielded 22 AWG 18 AWG	ALPHA 1292C ALPHA 2421C
Output Circuits	500 feet (150 m) 2-conductor 22 AWG 18 AWG	ALPHA 1172C ALPHA 1897C
RS232	50 feet (15 m) 9-conductor, stranded 22 AWG	ALPHA 1299C ALPHA 58119

Minimum wire gauge depends on cable length and current requirements.



The
biggest
thing to
happen to
the door since
the handle.



The future of physical access control is in IP-based systems. And with EDGE™ solutions from HID Global, the future starts now.

HID's EDGE access control solutions are designed to fully leverage your company's IT infrastructure, eliminating controllers and connecting easily with a network cable to each door. Easy to install and manage, and using very little bandwidth, EDGE creates tangible cost savings while delivering HID's world-leading security and reliability. Simple, flexible and secure, EDGE brings intelligence to the door.



ACCESS intelligence.

VertX™ Access Controllers

Access Control for Managed Access Service Providers



An open architecture platform that enables managed access service security monitoring software providers to fully integrate access control functions within host software, eliminating the need for separate access control systems that today are merely co-located within the managed access service facility. It also provides bi-directional communications for video-related services in managed access service facilities without modifying the existing infrastructure.

Frequently Asked Questions

Q: What is VertX™?

A: VertX is the first family of access controllers designed specifically for alarm dealers for direct connection to managed access service providers. VertX works with software from leading managed access service automation providers.

Q: How is VertX different from the other access control panels?

A: Fully featured, flexible, and easy to install, VertX is the high-security solution to any size organization – from a single-door retail shop to a large enterprise. With VertX, alarm dealers can realize managed access control and provide installation and recurring support services. VertX is a fully featured access control – not just a hook up to access control readers through an alarm panel. Compatible with industry standard access control readers, it eliminates the need for a separate access control system.

Q: I already have access control readers. Will they work with VertX?

A: Most existing access control readers will work with VertX.

Q: Does VertX only work when connected to a managed access service provider?

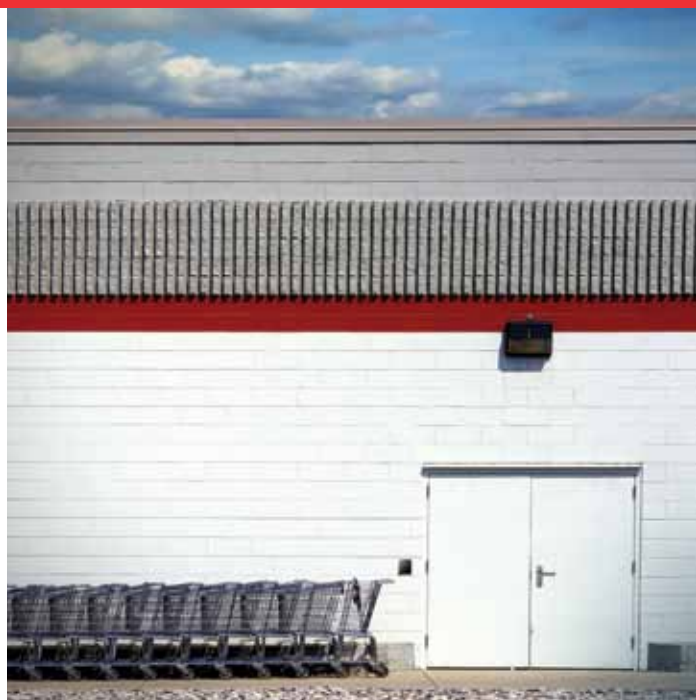
A: VertX provides access control at all times, not requiring that it be connected to a managed access service provider because all cardholder records and access schedules are on board the panel itself.

Q: Does VertX help to reduce false alarms?

A: Yes! With one managed access service operation controlling access control and alarm systems, false alarms are easily reduced. When an event occurs, the operator sees all systems on one screen. He can quickly look at alarm information and the corresponding access control entry information and decide what further steps need to be taken, if any. With VertX, law enforcement officials will only be dispatched when absolutely necessary.

Q: What are the benefits to an alarm dealer who promotes VertX?

A: Because approximately 85% of commercial alarm monitoring customers do not currently have electronic access control, alarm dealers have a significant opportunity for recurring monthly revenue by providing access control services starting with the existing alarm account client base. This is a virtually untapped market in addition to alarm dealers providing installation and recurring support services.





V1000 - Network Controller

V1000 Access Controller for Managed Access Services

Base Part Number • 71000

- Communicates directly with managed access service provider software
- Provides on-board processing and memory to support up to 32 downstream interface panels
- Controller has two independent RS485 networks, each having two sets of input connection for optimum system topology
- Allows local connection of a laptop computer for diagnostics and configuration
- Reports supervised inputs/alarms with 255 priorities
- Power supply 12-18 VDC @ 210 mA



V100 - Door/Reader Interface

The V100 connects two access control card readers by Wiegand.

Base Part Number • 70100

- Connects to the V1000 via a high speed RS485 network
- Connects 2 access control card readers via Wiegand or Clock-and-Data interface controlling 1 or 2 doors
- Processes off-line access control decisions based on facility code
- Flash memory for downloading program updates
- Power supply 9-18 VDC @ 100 mA



V200 - Input Monitor Interface

The V200 connects up to 16 configurable input circuits.

Base Part Number • 70200

- Connects to the V1000 via a high speed RS485 network
- Alarm input processing for up to 16 supervised input circuits
- Monitors & reports normal, Off/Normal & tamper status
- Flash memory for downloading program updates
- Power supply 9-18 VDC @ 100 mA



V300 - Output Control Interface

The V300 contains 12 latching Form-C relays, which can connect up to 12 devices controllable by simple contact closures.

Base Part Number • 70300

- Connects to the V1000 via a high speed RS485 network
- Output control processing for up to 12 devices
- Contains 12 latching Form C relays connecting up to 12 devices controllable by simple contact closures
- Off/Normal status programmable for each input point
- Flash memory for downloading program updates
- Power supply 9-18 VDC @ 100 mA



V2000 - Access Controller/Reader Interface

The V2000 Reader Interface/Access Controller is a combination of a V1000 and a V100.

Base Part Number • 72000

- Complete two door/reader unit for installations using TCP/IP communications to the central station
- No End User Software Installation Necessary
- V2000 communicates by TCP/IP only
- Ideal for small installations
- Power supply 12-18 VDC @ 210 mA

VertX™ Access Controllers



Genuine HID Value for Managed Access Service Providers

Quality

- Developed, tested and manufactured in ISO-certified facilities.
- From market leader HID, the world's most trusted brand for high quality access control cards and readers.

Partnership

- Developed in collaboration with managed access service monitoring host software leaders like AMT, Brivo, CBord, SNS CRITSEC®, DVTel, Envoy, GateWorks, Genetec, Imron, Macleay Solutions, Middleware Associates, NFive, SecuriCo, Vecta.
- OPIN™ API provided free of charge to qualified application developers.

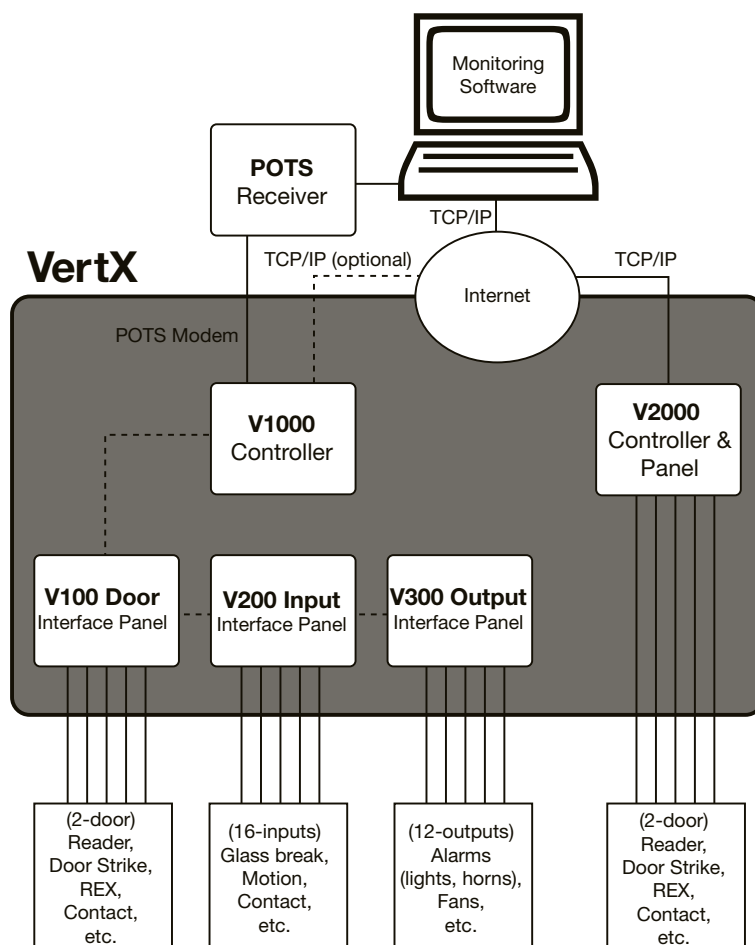
Service

- Dedicated application engineering and technical support staff.
- Available through distribution channels worldwide.
- Free training for alarm dealers and system integrators.

Value

- Affordable purchase price.
- Easy to buy, sell, install, and maintain.
- Eliminates the need for a separate access control system.
- Generates opportunity for incremental services to existing customers.

VertX Model	Description	Function
V1000	Access Controller	Host interface and access control processing for up to 32 door/reader interface (V100), input monitor (V200), or output control (V300) units.
V100	Door/Reader Interface (Connects to V1000)	Connects two access control card readers via Wiegand or Clock-and-Data interface controlling one or two doors.
V200	Input Monitor Interface (Connects to V1000)	Alarm input processing for up to 16 supervised input circuits, monitors and reports normal, off-normal, and tamper states.
V300	Output Control Interface (Connects to V1000)	Output control processing for up to 12 devices, contains 12 latching Form-C relays connecting up to 12 devices controllable by simple contact closures.
V2000	Reader Interface/Access Controller	Host interface and access control processing for two readers/doors. Ideal for small installations.



Integrators and Alarm Dealers:

What is your plan to build equity
in your company?



HID Global presents a new RMR access control business model for alarm dealers and integrators.

HID's VertX and Edge hardware enable a new business model for access control. Partner with HID to create new recurring monthly revenue (RMR) access control services to offer your customers. Watch closing ratios improve and new RMR created by partnering with HID. Ask us to show you how HID Global will work with you to build equity in your business.

hidglobal.com



ACCESS opportunities.

Wiegand / Magstripe

Widely recognized and field proven for decades, Wiegand technology cards and readers are low cost and durable, with a high level of security.

HID Global offers a wide range of magnetic strip readers fully equipped with both Clock-and-Data and Wiegand outputs. Combination readers read both magnetic stripe and proximity cards, providing a seamless technology migration path from magnetic stripe to proximity.

Wiegand / Magstripe

pages 99-102

Wiegand

pages 103-106

Magstripe



Wiegand technology is widely recognized and field proven for over 18 years. The cards and readers are low cost and durable, with a high level of security

Wiegand effect is a pulse-generating phenomenon in a special alloy wire that is processed in such a way as to create two distinct magnetic regions in the same homogeneous piece of wire, referred to as a shell and a core. These two magnetic regions react differently to any applied magnetic field. The shell requires a strong magnetic field to reverse its magnetic polarity, whereas the core will revert under weaker field conditions. When the shell and core change to different polarity orientations, the Wiegand pulse is generated, and is sensed by a pickup coil (the reader). Due to the complexity of manufacturing the Wiegand wire, Wiegand cards are virtually impossible to duplicate and remain one of the most secure access control.

Wiegand Credentials

SensorCard

Wiegand swipe card for access control

- Combines Wiegand technology and offers photo identification capability on a single card
- Graphics quality surface optional for use with direct image printers
- Available in several thicknesses:
Standard - 0.037" (0.094 cm) Tuff - 0.047" (0.119 cm)



SensorCard II

Wiegand card with magnetic stripe

- Combines Wiegand technology and offers photo identification capability on a single card
- Magnetic stripe technology
- Graphics quality surface optional for use with direct image printers
- Available in ISO thickness - 0.03" (0.076 cm)



Pocket Tag

Wiegand access control tag

- Small enough to carry in a pocket or on a key ring
- For use with the Classic, Epic, Turnstile, and PinPad readers
- Dimensions: 2.09" x 2.215" x 0.047" (5.31 cm x 5.4 cm x 0.119 cm)



Sensor Key

Wiegand access control key

- Convenient key style Wiegand tag for use with low profile, in-the-wall Sensorkey reader
- Dimensions: 3.29" x 1.0" x 0.093" (8.35 cm x 2.54 cm x 0.24 cm)



ProxCard Plus

Wiegand and 125 kHz Proximity Card

- Combines Wiegand technology, proximity technology and photo identification capability on a single card
- Graphics quality surface for use with direct image printers
- Two-year warranty*



*See published sales policy for warranty details.



Did You Know?

You can easily transition from Wiegand to Proximity or iCLASS with combination technology cards like ProxCard Plus, MicroProx Tag or iCLASS Tag.

Wiegand Readers

Classic Swipe Reader

Most popular Wiegand swipe reader for access control



- Rugged Wiegand swipe reader
- Power requirements: 5-12 VDC
- Dimensions: 2.3" x 5.3" x 1.7" (5.8 cm x 13.5 cm x 4.3 cm)
- Slot width: 0.062" to 0.069" (1.6 mm to 1.75 mm)
- Available in black or beige



Epic Reader

Stylish Wiegand swipe reader for access control

- Ergonomic design for easy card pass through
- Power requirements: 5-12 VDC
- Dimensions: 2.66" x 5.86" x 1.5" (6.76 cm x 14.9 cm x 3.0 cm)
- Slot width: 0.062" to 0.069" (1.6 mm to 1.75 mm)
- Available in black



Insertion Reader

Flush mount Wiegand card reader for access control

- In-wall mounting for low profile installation
- Power requirements: 5-12 VDC
- Dimensions: 1.18" x 3.18" x 3.0" (3.0 cm x 8.1 cm x 7.6 cm)
- Slot width: 0.062" to 0.069" (1.6 mm to 1.75 mm)
- Available in chrome



PinPad Reader

Keypad Wiegand swipe reader for access control

- Combines Wiegand reader technology with a fully integrated keypad
- Keypad data output available in 8 and 26-bit formats
- Power requirements: 5-12 VDC
- Dimensions: 5.64" x 4.27" x 2.25" (14.3 cm x 10.9 cm x 5.7 cm)
- Slot width: 0.062" to 0.069" (1.6 mm to 1.75 mm)
- Available in black



Sensor Key Reader

Key Token Wiegand Insertion Reader For Access Control

- Low profile, in-the-wall reader for use with Sensorkey
- Power requirements: 5-12 VDC
- Dimensions: 1.62" x 1.5" x 2.0" (4.1 cm x 3.8 cm x 5.1 cm)
- Available in chrome



Turnstile Reader

High traffic Wiegand swipe reader for access control

- Mounts on either horizontal or vertical surfaces
- Ideal for office lobbies or other areas where turnstile access is required
- Power requirements: 5-12 VDC
- Dimensions: 1.75" x 7.0" x 1.75" (4.45 cm x 17.8 cm x 4.45 cm)
- Slot width: 0.062" to 0.069" (1.6 mm to 1.75 mm)
- Available in black or chrome (base in black only)

When everybody
else says "can't,"

we say "when."

At HID, our know-how is rivaled only by our can-do.

HID Global has the expertise and capacity to provide access control and secure identity solutions on any scope, anywhere in the world. Nobody offers more products, supports more technologies or has more credentials in use. And almost everything we make comes with a lifetime warranty. But at HID, we built our global business by thinking locally. We have people on the ground who understand the markets and can provide solutions and support to meet any conditions. When others say "can't," HID says "when." And we say it in the language of your choice.



hidglobal.com

ACCESS service.

Magstripe

Classic magnetic stripe cards and readers



HID offers a wide range of magnetic strip readers fully equipped with both Clock-and-Data and Wiegand outputs. Combination readers read both magnetic stripe and proximity cards, providing a seamless technology migration path from magnetic stripe to proximity.

Magstripe Readers



Did You Know?

You can upgrade from magstripe technology to multi-technology card readers with DuoProx cards, and iCLASS cards with a magstripe feature.

Magnetic Stripe/Prox Reader 230

Base Part Number • 230

- Combines proximity and magnetic stripe technologies in one reader
- Compatible with EMPI and standard ABA / ANSI / ISO magnetic stripe cards
- Compatible with HID and EMPI proximity formats
- Perfect for transition from one technology to another
- Dimensions: 4.56" x 3.0" x 1.14" (11.5 cm x 7.5 cm x 3.0 cm)
- Read Range: up to 5.0" (12.7 cm)*



(Black)



Magnetic Stripe/Prox Reader with Keypad 240

Base Part Number • 240

- Combines proximity and magnetic stripe technologies in one reader
- Compatible with EMPI and standard ABA / ANSI / ISO magnetic stripe cards
- Compatible with HID and EMPI proximity formats
- Perfect for transition from one technology to another
- Dimensions: 4.56" x 3.0" x 1.14" (11.5 cm x 7.5 cm x 3.0 cm)
- Read Range: up to 5.0" (12.7 cm)*



(Black)



Rugged Keypad Reader Model 780

Base Part Number • 780

- Rugged construction for difficult locations: airports, schools, outdoors
- Reads security badges, time & attendance badges, parking cards, credit cards
- Connects to access control systems with Wiegand or Clock-and-Data interface format
- Optional card slot heater available
- Mounts on standard electrical boxes wall
- Dimensions: 6.75" x 5.125" x 3.0" (17.0 cm x 13.0 cm x 7.5 cm)



(Black)



* All Read Ranges are dependent on the type of credential used.



Rugged Reader Model 740

Base Part Number • 740

- Rugged construction for difficult locations: airports, schools, outdoors
- Reads security badges, time & attendance badges, parking cards, credit cards
- Connects to access control systems with Wiegand or Clock-and-Data interface format
- Optional card slot heater available
- Mounts on standard electrical boxes wall
- Dimensions: 6.75" x 5.125" x 3.0" (17.0 cm x 13.0 cm x 7.5 cm)



(Black)



Magnetic Stripe Reader 544

Base Part Number • 544

- Value Priced Magnetic Reader
- Weatherproof design in an insertion-style reader with keypad for increased security
- Connects to access control systems with Wiegand or Clock-and-Data interface format
- Reads security badges, time and attendance badges, and parking cards
- Mounts on standard electrical boxes
- Dimensions: 4.56" x 3.0" x 1.14" (11.5 cm x 7.5 cm x 3.0 cm)



(Black, White)



Magnetic Stripe Reader 584

Base Part Number • 584

- Insertion-style reader with keypad for increased security
- Connects to access control systems with Wiegand or Clock-and-Data interface format
- Reads security badges, time and attendance badges, and parking cards
- Read head assembly is adjustable to track location 1, 2, or 3
- Mounts on standard electrical boxes
- Dimensions: 4.56" x 3.0" x 1.14" (11.5 cm x 7.5 cm x 3.0 cm)



(Black, White)



Magnetic Stripe Reader 644

Base Part Number • 644

- Pass-through card reading for quickest use
- Connects to access control systems with Wiegand or Clock-and-Data input
- Reads security badges, time & attendance badges, parking cards, credit cards
- Read head assembly field-adjustable to track location 1 or 2
- Mounts on standard electrical boxes or directly on a door mullion
- Dimensions: 6.0" x 1.75" x 1.49" (15.0 cm x 4.5 cm x 4.0 cm)



(Black, White)

We're on the 'A' list in Hollywood.



**More movie and TV studios use HID,
onscreen and off.**

When it comes to security, reliability and flexibility, HID has always delivered a star performance. That's why more movie and TV studios all over Hollywood have given HID the lead role in secure identity and access control solutions. And if you look carefully at the sets and props in your favorite TV shows and movies, you'll see that HID has done a lot of performing in front of the camera as well.



ACCESS trust.

Secure Card Identity Solutions

Secure Card Identity Systems from HID Global are found in installations around the world, providing secure photo ID cards that help protect people, information, facilities and operations. Fargo ID card printer/encoders, software, systems and materials are used in access control systems, time and attendance tracking, asset protection, student identification and financial card transactions. Through a range of applied and embedded technologies such as smart chips, proximity, magnetic stripe and bar coding, Fargo ID cards make organizations more productive.

Secure Card Identity Solutions

pages 107-120

Fargo

Card Printers/Encoders

Secure Software

Visual Security Solutions

Integration Services & Accessories

Card Personalization Services



Ease-of-use, versatility and reliable performance have made Fargo Card Printer/Encoders the industry leaders in their class. With options such as encoding modules and laminators, you can configure Fargo printer/encoders for a wide range of applications, from basic photo IDs to biometric smart cards.



**Go beyond
unlocking
doors.**
**Unlock your
organization's
potential.**

Card Printer/Encoders

HDP5000

Produces cards in High Definition, from basic IDs to multifunction smart cards, for a new level of ID card production.

- Prints on the reverse side of HDP® Film that is then fused to the card, for outstanding print quality over embedded electronics and greater durability and security for basic IDs.
- Exceptionally reliable – because the printhead never touches the card during the HDP process, they're protected from damage.
- Modular design accommodates dual-sided print module, encoding modules, laminator or simultaneous dual-sided laminator.
- Affordably priced.



HDP600

Produces high-security smart cards for FIPS 201 and other government and corporate ID applications.

- Dual- or single-sided High Definition Printing™ (HDP). Prints, encodes and laminates cards with embedded electronics in one pass.
- Supports advanced e-card applications by encoding up to three embedded technologies, plus mag stripe.
- Deters counterfeiting with HDP Film and optional holographic overlaminates.
- HDP600 CR100 prints oversized ID badges for greater visual security for events.
- GSA certified - FIPS 201 Compliant



**Make your ID cards reflect
the people who wear them:
Smart, hard-working, dependable
and completely authentic.**



DTC550

The card production workhorse for diverse applications.

- Can encode up to three different smart card technologies, plus magnetic stripe, in the same pass as card printing and lamination.
- Integrates with your existing infrastructure.
- Allows for centralized or distributed issuance.
- Perfect for high-volume card printing and encoding.



DTC400

The easy, flexible way to print and encode ID cards.

- Dual- or single-sided Direct-to-Card printing of photos, bar codes and digital signatures.
- Upgradable with smart card, proximity card (read only) and mag stripe encoding options.
- Exclusive SmartLoad™ Ribbon Cartridge.



Persona® C30

Ensures simple ID card printing from start to finish.

- Delivers sharp, colorful, durable plastic ID cards.
- Reliable and low-maintenance, with simple set-up, loading and operation.
- Upgradable with mag stripe and dual-sided printing modules.
- Also available in monochrome only (M30).

Card Printer/Encoder Specifications



HDP5000



HDP600

Print Method	HDP Dye-Sublimation / Resin Thermal Transfer	
Resolution	300 dpi (11.8 dots/mm)	
Colors	Up to 16.7 million / 256 shades per pixel	
Print Speed**	<ul style="list-style-type: none"> • 38 seconds per card / 95 cards per hour (YMC with transfer)* • 46 seconds per card / 78 cards per hour (YMCK with transfer)* • 70 seconds per card / 51 cards per hour (YMCKK with transfer)* • 50 seconds per card / 72 cards per hour (YMCK with transfer and dual-sided, simultaneous lamination)* • 75 seconds per card / 48 cards per hour (YMCKK with transfer and dual-sided, simultaneous lamination)* 	<ul style="list-style-type: none"> • 44 seconds per card / 82 cards per hour (YMC with transfer)* • 54 seconds per card / 66 cards per hour (YMCK with transfer)* • 79 seconds per card / 45 cards per hour (YMCKK with transfer)* • 55 seconds per card / 65 cards per hour (YMCK/lamination)* • 80 seconds per card / 45 cards per hour (YMCKK/lamination)*
Accepted Standard Card Sizes	CR-80 (3.370" L x 2.125" W / 85.6 mm L x 54 mm W)	
Accepted Card Thickness	<ul style="list-style-type: none"> • Print only: .030" (30 mil) to .050" (50 mil) / .762 mm to 1.27 mm • Print/Lamination: .030" (30 mil) to .050" (50 mil) / .762 mm to 1.27 mm 	<ul style="list-style-type: none"> • Print only: .030" (30 mil) to .070" (70 mil) / .762 mm to 1.778 mm • Print/Lamination: .030" (30 mil) to .040" (40 mil) / .762 mm to 1.02 mm
Input Card Cartridge Capacity	100 cards (.030" / .762 mm)	200 cards (.030" / .762 mm)
Output Hopper Card Capacity	200 cards (.030" / .762 mm)	100 cards (.030" / .762 mm)
Software Drivers	Windows® 2000 / XP / Server 2003 / Vista	Windows® 2000/XP
Print Area	Over-the-edge	
Warranty	Printer: Two years including one year of free printer loaner support (U.S. only); optional Extended Warranty Program (U.S. only) Printhead: Lifetime; unlimited pass	Printer: One year; optional Extended Warranty Program (U.S. only) Printhead: Lifetime; unlimited pass with Fargo Certified Cards
Options	<ul style="list-style-type: none"> • Card lamination module – single-sided or dual-sided (simultaneous) • Magnetic stripe encoding • 200-card input hopper (available soon) • Smart card encoding (contact/contactless) • Dual-sided printing • Door and cartridge locks • Printer cleaning kit 	<ul style="list-style-type: none"> • Printer Cleaning Kit • Card Lamination Module • External Print Server (Windows only; parallel port only; required for stand-alone networking of printer/encoders) • Card Encoding Module

* Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay

**Print speed indicates an approximate print speed and is measured from the time a card drops into the output hopper to the time the next card drops into the output hopper. Print speeds do not include encoding time or the time needed for the PC to process the image. Process time is dependent on the size of the file, the CPU, amount of RAM and the amount of available resources at the time of the print.



DTC550



DTC400



Persona C30

Dye-Sublimation / Resin Thermal Transfer		
300 dpi (11.8 dots/mm)		
Up to 16.7 million / 256 shades per pixel		
<ul style="list-style-type: none"> • 7 seconds per card / 514 cards per hour (K)* • 12 seconds per card / 300 cards per hour (KO)* • 27 seconds per card / 144 cards per hour (YMCKO)* • 36 seconds per card / 109 cards per hour (YMCKOK)* • 34 seconds per card / 102 cards per hour (YMCKK/lamination)* 	<ul style="list-style-type: none"> • 7 seconds per card (K)* • 12 seconds per card (KO)* • 27 seconds per card (YMCKO)* • 35 seconds per card (YMCKOK)* 	<ul style="list-style-type: none"> ** • 7 seconds per card (K)* • 12 seconds per card (KO)* • 27 seconds per card (YMCKO)* • 35 seconds per card (YMCKOK)*
	CR-80 (3.375" L x 2.125" W / 85.6 mm L x 54 mm W) CR-79 Adhesive Back (3.313" L x 2.063" W / 84.1 mm L x 52.4 mm W)	
Print only: .020" (20 mil) to .050" (50 mil) / .508 mm to 1.27 mm (single-sided printing only for 50 mil cards)	20 mil to 30 mil (.020" to .030" / .51 mm to .76 mm)	
Dual hoppers, 100 cards each (.030" / .762 mm)	100 cards (.030" / .762 mm)	
100 cards (.030" / .762 mm)	Up to 30 cards (.030" / .762 mm)	
Windows® 2000/XP/Server 2003/Vista	Windows® 98SE/Me/2000/XP/Server 2003/ Vista	Windows® 98SE/Me/2000/XP/Server 2003/Vista
CR-80 edge-to-edge (3.36" L x 2.11" W / 85.3 mm L x 53.5 mm W) CR-79 (3.30" L x 2.04" W / 83.9 mm L x 51.8 mm W)	CR-80 edge-to-edge (3.36" L x 2.11" W / 85.3 mm L x 53.7 mm W) CR-79 (3.3" L x 2.04" W / 83.8 mm L x 51.8 mm W)	
Printer: Two years including free loaner printer in the first year (U.S. only); optional Extended Warranty Program (U.S. only) Printhead: Two years, unlimited pass with UltraCard™ Cards	Printer: Two years including free loaner printer in the first year (U.S. only); Optional Extended Warranty Program (U.S. only) Printhead: Two years, unlimited pass with UltraCard™ Cards	Printer: Two years; Printhead: Two years, unlimited pass with UltraCard™ Cards
<ul style="list-style-type: none"> • Card Lamination Module • Card hopper lock • Printer cleaning kit • Magnetic stripe encoding • Ethernet with internal print server <ul style="list-style-type: none"> • E-card encoding • Dual-sided printing 	<ul style="list-style-type: none"> • Dual-sided Printing Module – field-upgradable • Magnetic Stripe Encoding Module – field-upgradable • E-card Encoding Modules – field-upgradable <ul style="list-style-type: none"> • Printer cleaning kit • Ethernet networking with internal print server (replaces USB connection) • 100-card output hopper with or without reject tray 	<ul style="list-style-type: none"> • Magnetic Stripe Encoding Module — field-upgradable • Dual-sided Printing • Printer Cleaning Kit

Secure Software

Asure ID® Exchange™

Design • Print • Manage • Share • Control

- Comprehensive ID card design, production and management.
- For organizations wanting intuitive card design, data management and advanced card personalization.



Asure ID Enterprise™

Design • Print • Manage • Share

- Ideal photo ID software for issuance over corporate networks.
- The choice for organizations that perform ID card issuance in a networked environment.



Asure ID Express™

Design • Print • Manage

- Powerful yet affordable photo ID software.
- Easy-to-use software for designing and producing photo IDs in stand-alone systems.



Asure ID Solo™

Design • Print

- Basic entry-level photo ID software.
- Provides quick and easy single-sided card design and printing.



Powerful ID card software

For organizations that issue thousands of ID cards per day... or just one card per day.



OnQueue™ Card Production Software *The scalable, centralized solution for credential issuance.*

- Intuitive software transforms multiple card issuance stations into one centralized system, allowing organizations to improve efficiency
- Scalable system allows exactly the capacity needed. Up to 1300 client workstation PCs can send card jobs to a central server. One system can manage as few as two printers to more than twenty.
- Patent-pending, smart load balancing feature directs the next card in queue to the next available printer for even job distribution. The system identifies any printer problems and redirects jobs, eliminating manual retracking, rerouting and reprinting.
- Central database makes management, back-up and archiving easy.
- Ideal for any organization with high-volume card printing needs.



Did You Know?

Finding your Fargo Card Identity System begins with a simple mouse click.

With so many Fargo printer/encoders, software packages and Visual Security Solutions™ to choose from, where do you start? Our online Create a System tool gives you a quick and helpful overview of how Fargo system components go together, and what level of security they provide. Visit fargo.com/SystemBuilder to discover which Fargo Card Identity System is right for you.

Visual Security Solutions

HOLOGRAPHIC HDP FILM

**High Secure holograms on HDP Film — the ultimate in visual security.
Only for Fargo HDP printer/encoders.**



Custom High Secure HDP Film: Your unique holographic image, plus Visual Security Elements (VSEs) such as morphing images and micro text, all integrated within HDP Film. Extremely difficult to forge, yet easy to authenticate.



Standard High Secure HDP Film: Fargo's standard Orbit Globe hologram featuring multiple VSEs imaged onto HDP Film. Like the custom film, any attempt to peel apart the layers destroys the image for a tamper-evident solution.

HOLOGRAPHIC OVERLAMINATES

**Choose from Secure or High Secure holographic lamination.
Only for Fargo HDP or Direct-to-Card lamination modules.**



Custom High Secure Overlamine: Your custom holographic design integrated with a combination of VSEs produces a hard-to-duplicate ID card. Also available in a standard design.



Custom Secure Overlamine: A cost-effective solution that uses simple, 2D movement of your graphic or text to create a holographic design.



Custom Secure Express™ Overlamine: The fast track to basic, yet customized holographic protection. Fast delivery. Low minimum order requirements. Supports basic designs and text.



Standard High Secure Overlamine: Our standard Orbit Globe hologram featuring multiple VSEs. An off-the-shelf solution where incremental security is important.

**One look tells counterfeiters
that they're defeated
...before they even try.**

HOLOGRAPHIC FOIL CARDS

Cost-effective visual security for organizations without card lamination equipment.



Custom HoloMark™

Card: Your custom 3D image in a high-resolution hologram that's permanently embedded onto the card surface. Virtually impossible to duplicate, yet easy to validate. Also available in a standard design.



Custom VeriMark™ Card:

Your custom 2D graphic hot stamped in gold onto a silver metallic foil. Visual security with minimum cost and delivery time.



Custom Translucent Foil

Card: A secure hologram of your custom design in a translucent 2D foil embedded just below the card surface for maximum security and durability.



Custom Metallized Foil

Card: Your custom design in a metallized hologram that's layered just below the card surface for maximum durability and resistance to counterfeiting or tampering.

Get your free guide to designing ID cards.

Learn how to create dynamic, effective and secure ID cards.

Fargo's 28-page Card Design Guide Book shows you how to create IDs that:

- Reflect your brand identity.
- Enhance your physical and logical security.
- Reduce your vulnerability to ID counterfeiting.
- Increase your efficiency and productivity.

Also includes a bonus section: A gallery of ID cards intended to provide a creative spark for your own designs.

Visit fargo.com/FreeGuide to get your free copy of Fargo's ID Card Design Guide.



Integration Services & Accessories

Authorized Fargo Integrators

In corporations, schools and government agencies, our integrators put the power of Fargo Card Identity Systems to work.

Authorized Fargo integrators have one critical mission: help you get the most from your Fargo Card Identity System. After installing more than 140,000 systems in over 80 countries, Fargo integrators have the real-world experience to implement anything from high-security access control to charging a cafeteria lunch with a student ID. And Fargo integrators keep up to date with ongoing training from Fargo. So when your security depends on a Fargo Card Identity System, depend first on your authorized Fargo integrator.



Fargo Professional Services

A partnership that helps you successfully implement or upgrade large-scale card identity programs.

Working on a large program can be time-consuming and complex — one that requires specialized experience. That's why we support authorized Fargo integrators with our own dedicated team: Fargo Professional Services. These experts offer a proven methodology for optimizing the security and performance of sophisticated and often customized card identity systems. From planning through integration and deployment, Fargo Professional Services works in tandem with your integrator to ensure a successful program.



Fargo Accessories

Customize and complete your card identity system with digital cameras, photography backdrops and other accessories.

Beyond printer/encoders, software and materials, we offer a variety of accessories specifically selected to work with Fargo Card Identity Systems. Digital cameras are an essential part of any photo ID system, and our USB-connected cameras deliver the sharp, clear images that today's high-quality photo ID cards require. Our backdrops are easy to set up and enhance the appearance of your ID photos. Fargo's entire selection of accessories provides a simple, turnkey way to complete your system.



Don't think you have to do this alone.

Fargo has experts all over the world.

Your Total Solution

Every Fargo printer/encoder is the central component of a complete Fargo Card Identity System. We also offer software, materials, cameras and accessories — everything you need from one trusted source, for a total solution to your card printing needs.

Software

Fargo printer/encoders work with Asure ID® applications and all other leading card creation and issuance management software.



Fargo printer/encoders also come with Fargo Workbench™, a software toolkit for set up, printer security, diagnostics and firmware upgrades.

Materials

Fargo ribbons, films, overlaminates, and other materials not only ensure superior print quality for long-lasting, great-looking cards, they add



features that resist counterfeiting and increase durability. That means fewer card replacements and lower cost per card.

Cameras and Accessories

Fargo offers a selection of digital cameras, photo lighting equipment and backgrounds, plus card accessories such as lanyards and clips.



Card Personalization Services



The easy, secure and economical way to issue ID credentials. Use HID's Card Personalization Services to create custom credentials. Turn your HID card into a credential by having HID personalize each card with the required ID badge information. Only HID can provide one-stop shopping for your complete credential needs.

HID's Card Personalization Services:

- Allow the security department to manage security, not ID badge production.
- Reduce overall costs associated with ID badge production. Wear and tear on in-house badge production equipment is minimized!
- Create your ID badge layout to meet all your requirements. No in-house graphics capabilities required!
- Provide web-based service usable by any size company. Take advantage of technological advances with little or no capital investment.

1 Technology Selections

- Contactless Smart Card
- Proximity
- Contact Smart Chip
- Magnetic Stripe
- Composite Formulations



2 Visual Enhancements

- Lithographic Pre-printing
- Hologram
- Embedded UV
- Micro Text



3 Card Personalization

Internal Data

- Access Control
- Vending
- Logical Access
- Biometrics

External Data

- Personal Data
- Photo ID Image
- Bar Code
- Graphics



When Should You Use HID'S Card Personalization Service?

- When a major re-badge of personnel is required due to a company name change, merger, acquisition or logo change.
- Simplify the management and production of new credentials by merging stored photos into one database.
- Get the benefit of top-of-the-line equipment at a bottom-line low price!

Think you can't afford High Definition Printing™?



FARGO® The reliable Fargo HDP5000 gives you high def at a cost comparable to conventional card printers. HID Global, the worldwide leader in secure identity solutions, brings the latest in premier Fargo High Definition Card Printers – the Fargo HDP5000. It uses retransfer technology to print sharp, vibrant High Definition graphics on film that is then fused to the card, protecting the design from abrasion. The HDP5000 is ideal for cards with smart chips because the printhead never comes in contact with the card. This saves both the printhead and chips from possible damage, and eliminates replacement expenses.

For High Definition quality and durability at an unprecedented price, think the Fargo HDP5000.

www.hidglobal.com/hdp

For more information, call 1-800-459-5636 or e-mail us at sales@fargo.com



ACCESS quality.

 **ACCESS**
SECURE IDENTITY



ACCESS SECURE IDENTITY

hidglobal.com

©2008 HID Global Corporation. All rights reserved. HID, the HID logo, and other HID trademarks herein are trademarks or registered trademarks of HID Global in the U.S. and/or other countries. All other trademarks, service marks, and product or service names are trademarks or registered trademarks of their respective owners.



mkt_08dec2008_rg_prodcatt_en