iCLASS® R10, R15, R30, R40 Readers

13.56 MHz Contactless Smart Card Readers
Plug-n-play with new and existing access control systems

- Simple Upgrades - iCLASS readers have the same wiring connections, same low-current consumption and same 5 to 12 volt operation as our Prox readers.
- Multiple Applications - HID Connect offers over 70 technology partners which have embedded iCLASS technology into their products providing a single card solution for all your application requirements.
- GSA approved - Included in the U.S. General Services Administration (GSA) FIPS 201 Approved Products List.
- Field Upgradeable - Utilize firmware upgrade cards to modify reader firmware while installed on site.

ACCESS flexibility.

iCLASS® 13.56 MHz contactless smart cards and readers make access control more powerful, more versatile and offer enhanced security through data encryption and mutual authentication between the card and reader.

iCLASS readers are user-friendly, delivering the same convenience and reliability of HID's world-renowned Prox technology, with state-of-the-art features, driven by evolving industry requirements.

Upgrading from Prox to iCLASS technology has never been so simple. All iCLASS readers provide the same wiring connections, low-current consumption and 5 to 16 volt operation as our Prox readers. Additionally, you can transfer your Prox format and user identification numbers to iCLASS credentials, making the change completely transparent to your access control system.

Key Features

- Format Portability - Upgrading is completely transparent since the same Prox format and user identification numbers are brought across to your iCLASS credentials, including HID Corporate 1000 formats. Also, Elite custom key program is available for a higher level of security.
- Secure - All RF data transmission between the card and reader is encrypted using a secure algorithm. By using industry-standard encryption techniques and advanced key management systems, iCLASS reduces the risk of compromised data or duplicated cards.
- Interoperability - iCLASS is based on ISO interoperability standards providing compatibility with many popular card technologies (ISO 15693, ISO 14443A and ISO 14443B).
- Optimal Read Range Performance - An auto-tuning feature automatically adjusts the reader for optimal read range performance on any mounting surface.

Features

Security
64-bit authentication keys are extremely secure. Readers and cards require matching keys to function. All RF data transmission between the card and reader is encrypted using a secure algorithm. The key management system reduces the risk of compromised data or duplicated cards.

Elite Custom Keys
Custom keys provide the highest level of security, where cards and readers are uniquely matched to individual sites or customers, and are non-interchangeable. Combining Elite custom keys with our Corporate 1000 can offer companies a scalable solution that can be implemented in facilities worldwide.

Audiovisual Indication
Audio sounder provides various tone sequences to signify access granted, access denied, power up and diagnostics. Visually impaired cardholders can easily distinguish between access granted and access denied. A high-intensity light bar provides a clear visual status indication in red, green or amber, even in bright sunlight.
Note: Light bar will illuminate amber when a FIPS 201/PIV card is read.

Easily Interfaced
The reader's Wiegand output easily interfaces with most existing Wiegand and Clock-and-Data protocol access control panels. The reader reads standard proximity format data from HID iCLASS® cards and will output data as encoded. When reading ISO 14443A cards (MIFARE®/ DESFire®), the reader can be configured to output 26-bit, 32-bit (MSB), 32-bit (LSB), 34-bit, 40-bit or 56-bit Wiegand formats based on the CSN (card serial number).

Indoor/Outdoor Design
Rugged, weatherized polycarbonate enclosure, designed to withstand harsh environments, provides reliable performance and resistance to vandalism.

Options
Colors - Black or Gray
Key Management - Standard or Elite
Selectable Output Type (for MIFARE cards)
Termination Options: 18" Pigtail or Terminal Strip
Programmable LED/Beeper operation
Accessory - Security Tool; 04-0001-03
Transit – Enable FeliCa IDm and/or CEPAS CAN/CSN

	R10	R15	R30	R40
* Model Numbers	6100C (Wiegand) 6108C (Clock-and-Data) 6109C (Transit)	6140C (Wiegand) 6148C (Clock-and-Data) 6149C (Transit)	6110C (Wiegand) 6118C (Clock-and-Data) 6119C (Transit)	6120C (Wiegand) 6128C (Clock-and-Data) 6129C (Transit)
** Read Range	iCLASS Card : Up to 3.25" (8.9 cm) iCLASS Key/Tag : Up to 1.5" (3.8 cm) MIFARE / DESFire Card (CSN) : Up to 2.0" (5.1 cm)	iCLASS Card: Up to 3.5" (8.9 cm) iCLASS Key/Tag : Up to 1.5" (3.8 cm) MIFARE / DESFire Card (CSN) : Up to 2.0" (5.1 cm)	iCLASS Card : Up to 4.0" (10.2 cm) iCLASS Key/Tag : Up to 2.0" (5.1 cm) MIFARE / DESFire Card (CSN) : Up to 2.75" (7.0 cm)	iCLASS Card : Up to 4.75" (12.1 cm) iCLASS Key/Tag : Up to 2.0" (5.1 cm) MIFARE / DESFire Card (CSN) : Up to 2.5" (6.4 cm)
Mounting	The R10 and R15 are physically our smallest readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box or any flat surface (Reader will not cover junction box).		The R30 is 83.8 mm (3.3") square reader is designed to mount to and coverstandard European and Asian back boxes.	The R40 is designed to mount and cover single gang switch boxes primarily used in the United States and includes a slotted mounting plate for European and Asian back box spacing.
Dimensions	1.9" x 4.0" x 0.9" 4.8 cm x 10.3 cm x 2.3 cm	1.9" x 6.0" x 0.9" 4.8 cm x 15.3 cm x 2.3 cm	3.3" x 3.3" x 0.9" 8.4 cm x 8.4 cm x 2.3 cm	3.3" x 4.8" x 1.0" 8.4 cm x 12.2 cm x 2.4 cm
Power Supply	5-16 VDC, Linear supply recommended			
Current Requirements	55mA AVG, 116mA PEAK	55mA AVG, 112mA PEAK	55mA AVG, 121mA PEAK	55mA AVG, 121mA PEAK
Operating Temperature	-31° to 150° F (-35° to 65° C)			
Operating Humidity	5% to 95% relative humidity non-condensing			
Transmit Frequency	13.56 MHz			
Cable Distance	Wiegand/Clock-and-Data Interface 500ft (150m) 22 AWG			
Card Compatibility	•15693 - read only; 2k bit (256 Byte), 16k bit (2k Byte), 32k bit (4k Byte) iCLASS credentials, serial number •14443B - read only; 2k bit (256 Byte), 16k bit (2k Byte), 32k bit (4k Byte) iCLASS credentials serial number •14443A - read only; MIFARE® and DESFire (serial number) • US Government PIV • FeliCa IDm (Transit Readers Only) • CEPAS CAN/CSN (Transit Readers Only)			
Environmental	IP55			
Certifications	UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRC (China), MIC (Korea), NCC (Taiwan), iDA (Singapore), RoHS			
Housing Material	UL94 Polycarbonate			
Family Model	R-640X-300			
Warranty	Warrantied against defects in materials and workmanship for life. (See complete warranty policy for details.)			

*Consult How to Order Guide for specific ordering instructions.
**Dependent upon installation conditions.

© 2009 HID Global Corporation. All rights reserved. HID, the HID logo, and iCLASS 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. Rev. 07/2009

MKT-R-SERIES-C-DS-EN

HID

ACCESS experience.

hidglobal.com

HID Global Offices:

Corporate
North America
15370 Barranca Pkwy
Irvine, CA 92618
U.S.A.
Tel: 1 800 237 7769
Tel: +1 949 732 2000
Fax: +1 949 732 2360

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

Latin America
Circunvalación Ote. #201 B
Despacho 2
Col. Jardines del Moral
Leon 37160, Gto.
Mexico
Tel: +52 477 779 1492
Fax: +52 477 779 1493

Europe, Middle East & Africa
Haverhill Business Park
Phoenix Road
Haverhill, Suffolk
CB9 7AE
England
Tel: +44 1440 714 850
Fax: +44 1440 714 840

iCLASS® Key II

13.56 MHz Contactless

Contactless Smart Key Fob • 2050, 2051, 2052, 2053, 2054

ACCESS flexibility.

HID's iCLASS® 13.56 MHz read/write contactless smart card technology enables numerous applications and supports future growth for an organization's credential program. A unique form factor, the iCLASS Key II provides the convenience of an iCLASS contactless read/write smart card that is durable for harsh environments.

The size of a typical automotive key, this credential form factor can be placed on a key ring or lanyard and customized for corporate identity and branding purposes. The molded plastic key fob is ideal for diverse applications including access control, network log-on security, parking applications, cashless vending, time and attendance and biometric verification.

Features:

- The iCLASS 13.56 MHz read/write contactless smart key technology provides high-speed, reliable communications with high data integrity.
- iCLASS technology ensures high security with mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write capabilities.
- Any existing HID format can be factory or field programmed into the secure HID access control application area.
- Available in 2k bit (256 Byte), 16k bit (2k Byte) or 32k bit (4k Byte) configurations.
- Molded plastic enclosure provides durability in harsh environments.

All 2k bit (256 Byte) iCLASS credentials have the following features:

- Available in two application area configuration only.
- Provides the HID standard access control application area and one other application area for user customization.
- Meets ISO 15693 standard for contactless communications.
- Provides a cost effective way to improve the security of your access control installation.

All 16k bit (2k Byte) and 32k bit (4k Byte) iCLASS credentials have the following features:

- Sufficient read/write memory to store multiple biometric templates.
- 16k available in a two or sixteen application area configuration. 32k available with 16k memory configured in either 2 or 16 application areas, plus an additional 16k user configurable memory.
- Meets ISO 15693 and14443B for contactless communications.

Features

Read/write Functionality for Multi-functional Memory Applications

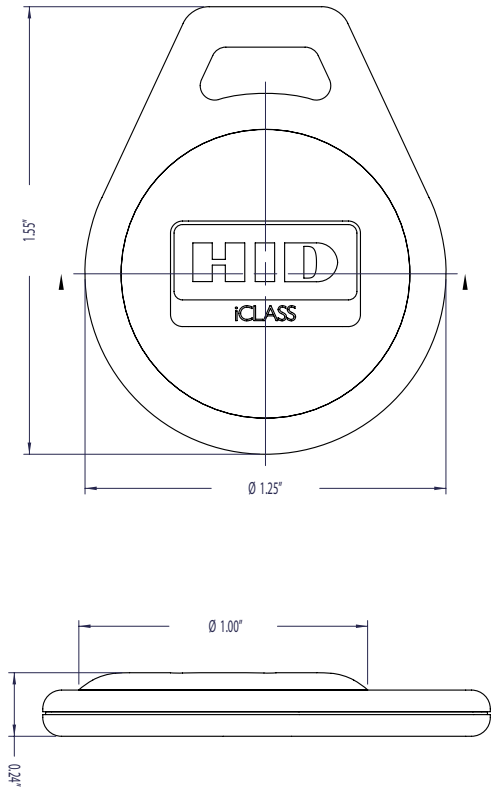
iCLASS® was specifically designed to make access control more powerful, more versatile, and more secure. All radio frequency data transmission between the key and reader is encrypted using a secure algorithm. By using industry standard encryption techniques, iCLASS reduces the risk of compromised data or duplicated keys. Multiple securely separated application areas are each protected by 64-bit diversified read/write keys which allow complex applications and provide for future expansion.

Security mechanisms such as mutual authentication and encryption are efficiently combined with fast processing and data communication, resulting in transaction times of less than 100 milliseconds for a typical secure e-purse transaction.

Proven, Reliable Technology Offers extremely consistent read range. Unaffected by body shielding or variable environmental conditions.

Small and Convenient Can be carried with keys in pocket, handbag, or clipped on a lanyard.

Long Life Passive, no-battery design allows for an estimated minimum 100,000 reads.



Base Part Number	2050, 2051, 2052, 2053, 2054
Description	RF-programmable, 13.56 kHz, black with blue insert, customer-specified ID Numbers.
***Typical Maximum Read Range**	R10 2" (5.1 cm) RP15 1 3/4" (4.6 cm) R30/RW300 2 1/4" (5.9 cm) R40/RW400 2 3/4" (7.0 cm) RK40/RWK400 2" (5.1 cm) RP40 2 1/2" (6.6 cm)
Dimensions	1.555 x 1.25 x 0.235 inches max (3.95 x 3.18 x 0.60 cm)
Key Fob Construction	Ultrasonically welded ABS Shell with TPE insert
Operating Temperature	-50° to 160° F (-45° to 70° C)
Weight	0.14 oz (4.0g)
Memory Size/ Application Areas	2k bit (256 Byte) key – 2 application areas 16k bit (2k Byte) key – 2 or 16 application areas 32k bit (4k Byte) card – 16k bits in 2 or 16 application areas plus 16k bit user configurable.
HID Proximity 125 kHz	No
Contact Smart Chip Module Embeddable	No
Wiegand Stripe	No
Magnetic Stripe	No
Printable	No
Standard HID Artwork	Yes
Slot Punch	Key Ring Hole
Visual Security Options	N/A
Additional Security Options	Corporate 1000
Warranty	Lifetime
Options	Key Ring sold separately (Part Number: 57-0001-02) External card numbering (inkjet or laser engraving)

*Dependent upon installation conditions. Tested using Rev "C" readers.

© 2010 HID Global. All rights reserved. HID, the HID logo, and iCLASS 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. Rev. 4/2010

For best results, please print on recycled paper.

MKT-iCLASSKEY_DS_EN

ACCESS experience.

hidglobal.com

HID Global Offices:

Corporate
North America
15370 Barranca Pkwy
Irvine, CA 92618
U.S.A.
Phone: (800) 237-7769
Phone: +1 (949) 732- 2000
Fax: +1 (949) 732 - 2360

Asia Pacific
19/F 625 King's Road
North Point
Island East
Hong Kong
Phone: +852 3160-9800
Fax: +852 3160-4809

Latin America
Circunvalacion Ote. #201 B
Despacho 2
Col. Jardines del Moral
Leon 37160, Gto.
Mexico
Phone: +52 477 779 1492
Fax: +52 477 779 1493

Europe, Middle East & Africa
Phoenix Road
Haverhill, Suffolk
CB9 7AE
England
Phone: +44 (0) 1440 714 850
Fax: +44 (0) 1440 714 840

An ASSA ABLOY Group brand

ASSA ABLOY