

# 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
<b>* Model Numbers</b>	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)
<b>** Read Range</b>	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)
<b>Mounting</b>	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 cover standard 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.
<b>Dimensions</b>	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
<b>Power Supply</b>	5-16 VDC, Linear supply recommended			
<b>Current Requirements</b>	55mA AVG, 116mA PEAK	55mA AVG, 112mA PEAK	55mA AVG, 121mA PEAK	55mA AVG, 121mA PEAK
<b>Operating Temperature</b>	-31° to 150° F (-35° to 65° C)			
<b>Operating Humidity</b>	5% to 95% relative humidity non-condensing			
<b>Transmit Frequency</b>	13.56 MHz			
<b>Cable Distance</b>	Wiegand/Clock-and-Data Interface 500ft (150m) 22 AWG			
<b>Card Compatibility</b>	<ul style="list-style-type: none"> <li>• 15693 - read only; 2k bit (256 Byte), 16k bit (2k Byte), 32k bit (4k Byte) iCLASS credentials, serial number</li> <li>• 14443B - read only; 2k bit (256 Byte), 16k bit (2k Byte), 32k bit (4k Byte) iCLASS credentials serial number</li> <li>• 14443A - read only; MIFARE® and DESFire (serial number)                             <ul style="list-style-type: none"> <li>• US Government PIV</li> <li>• FeliCa IDm (Transit Readers Only)</li> <li>• CEPAS CAN/CSN (Transit Readers Only)</li> </ul> </li> </ul>			
<b>Environmental</b>	IP55			
<b>Certifications</b>	UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRC (China), MIC (Korea), NCC (Taiwan), iDA (Singapore), RoHS			
<b>Housing Material</b>	UL94 Polycarbonate			
<b>Family Model</b>	R-640X-300			
<b>Warranty</b>	Warranted 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



## 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