iCLASS® RW100, RW150, RW300, RW400 Readers

13.56 MHz Contactless Smart Card Read/Write Readers

▶ **Multiple Applications** - Read/write capabilities support applications such as biometric authentication, time and attendance, PC log-on security and cashless vending

▶ **Versatile Development** - A flexible serial protocol exposes a plethora of reader functionality, not seen using read-only readers.

▶ **Convenient Enrollment** - Develop enrollment software for your applications

▶ **Supports Multiple Hardware Protocols** - Configure reader to receive card data and/or write data to card using a multitude of common hardware interfaces.

ACCESS flexibility.

HID

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

Providing read/write capability, iCLASS is the platform of choice for custom applications. With HID iCLASS credential data storage capacities of 2k bit (256 Byte), 16k bit (2k Byte) or 32k bit (4k Byte), this reader line allows for secure bi-directional data exchange between card and reader by reading and writing user data to iCLASS cards. iCLASS-enabled read/write applications include biometric template storage, cashless vending, time and attendance, alarm system control, point of sale terminals and many more.

All readers units are equipped with a Wiegand output that easily interfaces with most existing access control panels. All RW's are also equipped with bi-directional communications of RS232, RS485 (full-duplex), UART or USB to enable host controlled reader behavior. In addition, uni-directional communication of RS232, RS485 (full-duplex) or UART is enabled when the reader is running its own internal applications.

Key Features

▶ **Expansion Modularity** - Every RW (read/write) reader comes with an expansion socket that accepts RS232, RS485 or USB or direct UART communications. The readers can read or write to any application area on the iCLASS® credential, with all reader functions controlled by an external host processor via the selected serial interface using the iCLASS serial protocol.

▶ **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 international 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.

ASSA ABLOY

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. Key management is made easy! All cards are shipped with unique diversified keys, and readers are shipped with compatible keys. While cards and readers with Standard keys are interchangeable, the keys are highly secure. Cards can be made unique by ordering with iCLASS® Elite formatting.

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 Corp. 1000 can offer companies a scalable solution that can be implemented in facilities worldwide.

Easily Interfaced

The reader's Wiegand output easily interfaces with most existing Wiegand and Clock & Data protocol access control panels. The same data is also replicated on the RS232 output lines. 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 Custom
Selectable Output Type (for MIFARE cards)
Termination Options: 18" Pigtail or Terminal Strip
Programmable LED/Beeper operation
Accessory - Security Tool; 04-0001-03

	RW100 Mullion Style Reader/Writer	RW150 Mullion Style Reader/Writer	RW300 EU/Asian Back Box Style Reader/Writer	RW400 US Wall Switch Style Reader/Writer
* Model Numbers	6101BxT (Wiegand and RS232) 6101Bx4 (Wiegand and RS485****) 6101BxU (Wiegand and USB) 6101BxB (Wiegand and UART)	6141BxT (Wiegand and RS232) 6141Bx4 (Wiegand and RS485****) 6141BxU (Wiegand and USB) 6141BxB (Wiegand and UART)	6111BxT (Wiegand and RS232) 6111Bx4 (Wiegand and RS485****) 6111BxU (Wiegand and USB) 6111BxB (Wiegand and UART)	6121BxT (Wiegand and RS232) 6121Bx4 (Wiegand and RS485****) 6121BxU (Wiegand and USB) 6121BxB (Wiegand and UART)
** 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 2.5" (6.4 cm)	iCLASS Card : Up to 4.25" (10.8 cm) iCLASS Key/Tag : Up to 2.0" (5.1 cm) MIFARE / DESFire Card (CSN) : Up to 2.5" (6.4 cm)
Mounting	The RW100 and RW150 are physically our smallest readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box or any flat surface (Readers will not cover junction box).		The RW300 is 83.8 mm (3.15") square reader is designed to mount to and cover standard European and Asian back boxes.	The RW400 is designed to mount and cover single gang switch boxes primarily used in HID 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, 116 PEAK	***55mA AVG, 112mA PEAK	***55AVG, 121 PEAK	
Operating Temperature	-40° to 150° F (-40° 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) (22AWG), RS232 50ft (15m), RS485 4000ft (1220m), USB 16ft (4m), UART 1ft (0.30m)			
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 •14443A - read only; MIFARE® and DESFire (serial number) • US Government PIV			
Communications Interface	RS232, RS485, UART Configurable to 9.6, 19.2, 38.4, 57.6, 115.2 Kbaud. USB uses Human Device Interface (HDI)			
Certifications	UL 294/cUL, FCC Certification, Canada Certification, CE Mark (EU), Austrailia C-Tick, New Zealand, Taiwan, Korea, Japan, China, RoHS Compliant (EU and China) Pending: IP54			
Housing Material	UL94 Polycarbonate			
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
*** Add 40mA current draw for USB expansion module. Add 10mA current draw for RS232, RS485 and UART expansion modules.
**** Only full duplex RS485 is available.

HID
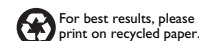
ACCESS experience.

hidcorp.com

HID Global Offices:

Corporate
North America
9292 Jeronimo Road
Irvine, CA 92618-1905
U.S.A.
Phone: (800) 237-7769
Phone: +1 (949) 598-1600
Fax: +1 (949) 598-1690

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
Tel: +52 477 779 1492
Fax: +52 477 779 1493

Europe, Middle East & Africa
Homefield Road
Haverhill, Suffolk
CB9 8QP
England
Phone: +44 (0) 1440 714 850
Fax: +44 (0) 1440 714 840

An ASSA ABLOY Group brand

ASSA ABLOY