RK40 & RWK400

- Read only contactless smart card reader with keypad
- Read/write contactless smart card reader with keypad

HID introduces the newest products in the ***iCLASS*** product portfolio:

- The ***iCLASS*** RK40 read only contactless smart card reader with keypad
- The ***iCLASS*** RWK400 read/write contactless smart card reader with keypad

Using 13.56 MHz contactless smart card technology, the ***iCLASS*** RK40 and RWK400 provide a powerful solution. Combine a contactless card presentation with a personal identification number (PIN) to support dual authentication of identity. Or, configure the panel for single-factor authentication, using only a card or a PIN.

The PIN can be verified either at the access control panel or locally by the keypad reader. When verified locally, the PIN must be programmed into the ***iCLASS*** card.

The RWK400 offers the same features as the RK40, with the extended ability to read/write user data to HID ***iCLASS*** credentials. Read/write applications include the storage/retrieval of data such as biometric templates, health records, time and attendance, and digital cash. The possibilities are endless!

Featuring crisp architectural styling, the keypad reader and reader/writer have an elegantly curved faceplate. The 12-position weatherproof keypad uses discrete switches to provide positive tactile response, optionally reinforced by an audible tone. The keypad also features a waterproof silicone rubber boot, vandal-resistant metal keycaps, and backlit numbering.

The units are equipped with a Wiegand output that easily interfaces with most existing access control panels. The RWK400 is also equipped with a bi-directional serial port configurable for RS-232 or RS-485 operation to provide connection to a PC or microcontroller.

The ***iCLASS*** RK40 and RWK400 are compatible with all ***iCLASS*** credentials. The units can read or read/write to credentials compatible with several ISO standards:

The *iCLASS* RK40 read only contactless smart card reader with keypad:
15693 - read only; 2kbits (256Bytes) and 16kbits (2kBytes) ***iCLASS*** credentials
14443A - read only; MIFARE® Standard (serial number)
14443B2 - read only; 16kbits (2kBytes) ***iCLASS*** credentials

The *iCLASS* RWK400 read/write contactless smart card reader with keypad:
15693 - read/write; 2kbits (256Bytes) and 16kbits (2kBytes) ***iCLASS*** credentials
14443A - read only; MIFARE Standard (serial number)
14443B2 - read/write; 16kbits (2kBytes) ***iCLASS*** credentials

iCLASS™ ***by***

Smart • Powerful • Trusted

HID®
HID CORPORATION

iCLASS™ RK40 & RWK400

- Read only contactless smart card reader with keypad
- Read/write contactless smart card reader with keypad

HID CORPORATION

Features

Data Output Formats
The keypad reader reads standard proximity format data from HID ***iCLASS*** cards, and will output data as encoded. When reading MIFARE® cards, the keypad reader can be configured to output 26 bit, 32 bit, 34 bit, or 40 bit Wiegand formats based on the card serial number.

Wiegand keypad data format can be configured for transmission of individual key presses as ASCII encoded Hex digits, or for buffering and transmission of the PIN as a card number in SIA 26 bit format with a configurable facility code.

Additionally, the RWK400 offers a bi-directional serial port that communicates at data rates up to 57.6 Kbaud. Using the ISO 7816 protocol, the standard for contact smart card applications, the RWK400 allows connection to a PC or microcontroller to support read/write applications.

Keypad
Twelve discrete switches are covered with a silicone rubber boot and vandal resistant metal keycaps. Raised tactile mark on "5" key for visually impaired users. Configurable audio feedback. Backlit numbers in bezel overlay, above each key. Lighting is configurable: "Always On", "Always Off", "Triggered by Card Read", or "Triggered by Key Press".

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

Cards and keypad readers with site-specific keys are optionally available from the factory. Alternatively, the ***iCLASS*** CP400 Field Programmer® can be used to create site-specific keys. The programmer also allows users to create a keypad reader configuration card, which is used to re-key cards and keypad readers on site.

Programming/Configuration
All cards are shipped with unique diversified keys; keypad readers are shipped with compatible keys. All keys are derived from the HID Standard key. While cards and keypad readers with Standard keys are interchangeable, the keys are highly secure. Further enhance security by ordering with ***iCLASS*** Elite formatting.

Audiovisual Indication
Audio transducer provides configurable tone sequences to signify access granted, access denied, power up, and configuration card read. A light bar provides a clear visual status indication in red, green, or amber.

Open Collector Output (RWK400 Only)
Normally Open logic output, controlled via serial port. Switches up to 50mA at 12 VDC. Use interposing relay for larger loads. Configurable to latch momentarily upon successful local verification of PIN stored on the card.

Mounting
Mounting plate attaches to U.S./ EU/ Asian back box, 52-60 mm screw hole spacing (vertical or horizontal). Keypad reader housing latches onto mounting plate, secured with a screw. Mounts on metal with minimal read range impact. An optional spacer can be used for surface mount installations.

Indoor/Outdoor Design
Rugged, weatherized polycarbonate enclosure designed to withstand harsh environments provides reliable performance and resistance to vandalism. Permanent magnet built into housing facilitates tamper alarm when used with a magnetic reed switch.

Warranty
Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)

Base Part Numbers:

RK40 Read Only Keypad:	6130
RWK400 Reader/Writer Keypad:	6131

Options:
Color - Black, Gray
Key Management - Standard or High Security
Selectable Output Type (for MIFARE cards)
Termination - removable connector with miniature screw terminals or 18" (45.72 cm) wire pigtail.
Programmable LED/Beeper operation
Accessory - Security Tool; 04-0001-03

Specifications:

Typical Maximum Read Range*
3.0-4.0" (7.6-10.1 cm) with HID ***iCLASS*** Card
1.0-1.5" (2.5-3.8 cm) with HID ***iCLASS*** Key
1.0-1.5" (2.5-3.8 cm) with HID ***iCLASS*** Tag
1.5-2.5" (3.8-6.3 cm) with HID ***iCLASS*** Prox
1-2" (2.5-5.0 cm) with MIFARE Card (serial number only)

*Using ISO 15693 mode (except MIFARE). Dependent upon installation conditions.

Please note that all ***iCLASS*** credentials are available in either a 2Kbits (256Bytes) or 16Kbits (2KBytes) configuration.

Dimensions
3.30" x 4.80" x 0.9" (8.38 cm x 12.19 cm x 2.286 cm)

Material
UL94 Polycarbonate

Power Supply
10 - 16 VDC reverse voltage protected
Linear supply recommended

Current Requirements (Avg/Peak)
72/244 mA @ 12 VDC

Operating Temperature
-31° to 150° F (-35° to 65° C)

Operating Humidity
5% to 95% relative humidity non-condensing

Weight
Approximately 10 oz (283.49 g)

Transmit Frequency
13.56 MHz

Certifications Pending
UL 294/cUL, FCC Certification, Canada Certification, CE Mark (Europe), New Zealand, Australia c-Tick, Taiwan, Singapore

Cable Distance
Wiegand Interface - 500 feet (150 m); RS-232 - 50 feet (15 m); RS-485 - 4000 feet (1220 m)
Recommended cable is ALPHA 1299 (22AWG) 9-conductor stranded with overall shield or equivalent. Additional conductors may be required to connect all outputs.

Specifications subject to change without notice.

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*Consult factory.

LIT6130/6131DS **Preliminary 3/2003**