

pivCLASS® RKCL40, RPKCL40 Readers for FIPS 201

For the following security areas per NIST SP 800-116:

- “Controlled” Areas
- “Limited” Areas
- “Exclusion” Areas



pivCLASS® READERS FOR "LIMITED" SECURITY AREAS ENABLE HIGH SECURITY, INTEROPERABILITY AND COMPLIANCE

- **Part of an integrated solution from a single, trusted provider** – Enables FIPS 201 compliance per NIST SP 800-116 guidelines and the TWIC Reader Specification.
- **Contact reader solution for "Limited" security areas** – Meets NIST's "Limited" security area assurance level requirements with two-factor PIV + PIN authentication.
- **Supports multiple card types** – PIV, PIV-I, CAC, CIV (a.k.a., PIV-C), TWIC and FRAC, as well as iCLASS® and HID Prox® cards for easy, phased transitions from legacy technology to new PKI-enabled smart cards.

ADDITIONAL PRODUCT FEATURES:

- Architected for maximum security and affordability. pivCLASS utilizes the pivCLASS Authentication Module to provide cryptographic functionality and to pass Wiegand-formatted data to the PACS controller. Locating the critical security operations within the secure perimeter, rather than on the attack side of the door, increases security and reader affordability.
- Up to two pivCLASS readers can connect to a pivCLASS Authentication Module via four-wire RS-485 communication to the reader, typically enabling facilities to re-use much of their existing wiring.
- Mountable on single- or double-gang boxes with a width of roughly a double-gang device.
- Available with either a pigtail or terminal strip wiring termination.
- Contact interface provides backup for cards with broken antennas.

HID Global pivCLASS® Government Solutions enable facilities to upgrade their existing physical access control system (PACS) to FIPS 201 compliance.

pivCLASS readers deliver the "Limited" assurance level as defined in NIST SP 800-116. These readers work with the pivCLASS Authentication Module (PAM) to perform the following two-factor authentication checks:

PIV + PIN – After the cardholder enters his PIN into the pivCLASS reader's keypad, the pivCLASS reader works with the pivCLASS Authentication Module to enable a "match-on-card" check of the PIN. A PIN match unlocks the card's PIV authentication key certificate so it can be read from the card.

The PAM then performs cryptographic tests to ensure the card's validity. This includes a signature check of the PIV certificate and a

private key challenge to ensure the public key in the PIV authentication certificate is bound to the private key on the card.

This category of pivCLASS readers secures against cards that have been counterfeit, altered, copied, cloned, lost or stolen.

Optionally, the pivCLASS Authentication Module can utilize these readers for the lower-security "Controlled" assurance level that calls for a single-factor CHUID + VIS or CAK authentication mode using the contact or contactless interface. The authentication mode can be dynamically changed from a central location in response to threat level, time of day or day of week.

pivCLASS readers are guaranteed to meet stringent specifications for operation, reliability and interoperability with other Genuine HID™ products.



Model Name	RKCL40-H	RPKCL40-H
Base Part Number	923NPR	923PPR
13.56 MHz Card Compatibility	PKI-Based FIPS-201 Credentials including PIV, PIV-I, CIV, CAC, TWIC and FRAQ Secure Identity Object (SIO) on iCLASS SE, SE for MIFARE DESFire EV1 and SE for MIFARE Classic standard iCLASS Access Control Application ISO14443A (MIFARE) CSN	
125 kHz Card Compatibility	N/A	HID, AWID, EM4102
System Requirements	These readers require HID pivCLASS Authentication Module (M2000) to support FICAM compliance	
Typical Contactless Read Range ¹	FIPS 201 type cards can be read using either the contact or contactless card interface	
	FIPS-201 Type Cards, Contactless Interface¹ PIV, PIV-I, CIV, CAC, TWIC and FRAQ	
	1" (2.5 cm)	
	13.56 MHz iCLASS, DesFIRE and MIFARE Cards²	
iCLASS SE	4.5" (11 cm)	
DesFIRE EV1 SE	2" (5 cm)	
MIFARE Classic SE	4" (10 cm)	
	13.56 MHz iCLASS, DesFIRE and MIFARE Cards	
HID Prox / AWID	N/A	2.5" (6.4 cm)
EM4102	N/A	3" (7.6 cm)
Mounting	Double-gang Size; designed to mount on double (preferable for stable wall mount) or single gang switch box	
Color	Black	
Keypad	Yes (illuminated, 4 x 3)	
Dimensions	4.8" x 6.1" x 1.2" (12.2 cm x 15.6 cm x 3.0 cm)	
Product Weight (Pigtail)	14.0 oz (396g)	14.0 oz (398g)
Product Weight (Terminal Strip)	12.9 oz (366g)	13.0 oz (368g)
Operating Voltage Range	+12VDC	
Current Draw - Standby Average ³	150 mA	
Current Draw - Maximum Average ⁴	185 mA	
Current Draw - Peak ⁵	250 mA	
Operating Temperature	-4° to 149° F (-20° to 65° C)	
Operating Humidity	5% to 95% relative humidity non-condensing	
Storage Temperature	-67° to 185° F (-55° to 85° C)	
Environmental	Indoor / Outdoor; IP55	
Transmit Frequency	13.56 MHz	13.56 MHz & 125 kHz
Protocol	HID pivCLASS Protocol, CoreStreet Reader Protocol	
Cable Distance ⁶	Six conductor connection per reader: full duplex four-wire RS485 for communication (500ft (152m), 22AWG), (300ft (91m), 24AWG); two wires for power (500ft (152m), 22AWG)	
Wiring Connection	Pigtail or Terminal Strip	
Certifications	FICAM tested ⁷ , UL294 (US & Canada), FCC Certification (US), RoHS2	
Housing Material	UL94 Polycarbonate	
UL Ref Number	RKCL40E	RPKCL40E
Warranty	Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)	

¹ Typical read range in air. Different types of metal will cause some degradation (typically up to 20%).
Use spacers to space product off metal and improve read range if required.
Read ranges for FIPS 201 type cards will vary depending upon the card manufacturer.
² Measured using the SIO Data Model
³ Standby Average - RMS current draw without a card in the RF field
⁴ Maximum Average - RMS current draw during continuous PIV card reads
⁵ Peak - highest instantaneous current draw during RF communication
⁶ For cable lengths when used in Wiegand mode see "pivCLASS Reader Installation Guide" PLT-01134
⁷ FICAM tested as part of complete physical access control systems