

pivCLASS® RK40, RPK40  
Readers for FIPS 201

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

“UnControlled” Areas	“Controlled” Areas	“Limited” Areas	“Exclusion” Areas
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### pivCLASS READERS FOR “CONTROLLED” 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
- **Reconfigurable in field** – can be upgraded in the field to achieve higher assurance levels with the addition of a contact or contact plus biometric “sidecar”
- **Transitional reader** – supports reading PIV, PIV-I, CAC, CIV, TWIC, FRAC, iCLASS® and HID Prox® cards for easy, phased transitions from legacy technology to new PKI-enabled smart cards
- **Contactless reader with keypad for “Uncontrolled” security areas** – enables “PIN to PACS” approach using both legacy and FIPS-201 cards

#### ADDITIONAL PRODUCT FEATURES:

- The RK40 and RPK40 utilize the pivCLASS Authentication Module (PAM) to perform cryptographic operations required to pass FICAM’s E-PACS testing.
- Security critical operations are performed within the secure perimeter, rather than on the attack side of the door, increasing security and reader affordability.
- Maximum flexibility is achieved through in-field sidecar expansion to add a contact interface, an LCD to display messages to the cardholder and a biometric sensor.
- Supports a phased approach to FICAM compliance. Can be used as a standalone reader to read legacy and FIPS 201 type smart cards. PAMs can be added later to achieve FICAM compliance by providing strong multi-factor authentication.
- Ideal for “Uncontrolled” areas where access control is desired but strong authentication FICAM compliance is not required.

HID Global’s pivCLASS Government Solutions enable facilities to upgrade their existing physical access control systems (PACS) to achieve FIPS 201/FICAM compliance without the need to rip-and-replace their existing system. The RK40 and RPK40 are designed to support multiple use cases leading to full FICAM compliance.

Transitional reader – in this approach the reader can be used standalone to read legacy iCLASS and HID prox cards as well as FIPS 201 type cards and pass the card identifier directly to the panel. The key pad can be used to send a user entered PIN directly to the PACS panel. When used with the pivCLASS Registration Engine and Certification Manager software this approach provides a solution for a smooth transition to full FICAM compliance as well as a cost effective solution for “Uncontrolled” doors where access control is desired but FICAM compliance is not required.

FICAM compliant reader – to be FICAM compliant requires the addition of the pivCLASS Authentication Module (PAM) to provide single factor strong authentication.

This configuration supports the CHUID + VIS and card authentication key (CAK) authentication modes as described in NIST Special Publication 800-116.

Two-factor strong authentication can be achieved by adding the HID pivCLASS contact reader sidecar. This sidecar provides a contact card reading slot and an LCD that displays messages and instructions to the card holder. This configuration supports the CHUID + VIS, CAK authentication modes over both the contactless and contact reader interfaces. It also supports the PKI + PIN authentication mode on the contact interface with match-on-card of the PIN.

Three-factor strong authentication can be achieved by adding the HID pivCLASS contact plus biometric reader sidecar. In addition to a contact card reading slot this sidecar also provides a biometric sensor. This configuration supports CHUID + VIS and CAK over both the contactless and contact reader interfaces. The PKI + PIN with match-on-card of the PIN and the PKI + PIN + BIO authentication modes use the contact interface.



## SPECIFICATIONS

	RK40-H	RPK40-H
<b>Base Part Number</b>	92INPR	92IPPR
<b>13.56 MHz Card Compatibility</b>	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	
<b>125 kHz Card Compatibility</b>	N/A	HID, AWID, EM4102
<b>System Requirements</b>	These readers require HID pivCLASS Authentication Module (M2000) to support FICAM compliance	
<b>Typical Contactless Read Range<sup>1</sup></b>	FIPS 201 type cards can be read using either the contact or contactless card interface	
	<b>"FIPS-201 Type Cards, Contactless Interface<sup>1</sup> PIV, PIV-I, CIV, CAC, TWIC and FRAQ"</b>	
	1" (2.5 cm)	
	<b>13.56 MHz iCLASS, DesFIRE and MIFARE Cards<sup>2</sup></b>	
<i>iCLASS SE</i>	4.5" (11 cm)	
<i>DesFIRE EV1 SE</i>	2" (5 cm)	
<i>MIFARE Classic SE</i>	4" (10 cm)	
	<b>13.56 MHz iCLASS, DesFIRE and MIFARE Cards</b>	
<i>HID Prox / AWID</i>	N/A	2.5" (6.4 cm)
<i>EM4102</i>	N/A	3" (7.6 cm)
<b>Mounting</b>	Wall Switch Size; designed to mount on single gang switch box	
<b>Color</b>	Black	
<b>Keypad</b>	Yes (4x3)	
<b>Dimensions</b>	"3.3" x 4.8" x 1.1" (8.5 cm x 12.2 cm x 2.8 cm)"	
<b>Product Weight (Pigtail)</b>	9.0oz(256g)	9.1oz(258g)
<b>Product Weight (Terminal Strip)</b>	7.9oz(226g)	8.0oz(228g)
<b>Operating Voltage Range</b>	+12VDC	
<b>Current Draw - Standby Average<sup>3</sup></b>	85mA	95mA
<b>Current Draw - Maximum Average<sup>4</sup></b>	125mA	125mA
<b>Current Draw - Peak<sup>5</sup></b>	220mA	220mA
<b>Operating Temperature</b>	-30° to 150° F (-35° to 65° C)	
<b>Operating Humidity</b>	5% to 95% relative humidity non-condensing	
<b>Storage Temperature</b>	-67° to 185° F (-55° to 85° C)	
<b>Environmental</b>	Indoor / Outdoor; IP55, IP65 if installed with optional gasket (IP65GSKT)	
<b>Transmit Frequency</b>	13.56 MHz	13.56 MHz & 125 kHz
<b>Protocol</b>	HID pivCLASS Protocol, CoreStreet Reader Protocol	
<b>Cable Distance<sup>6</sup></b>	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)	
<b>Wiring Connection</b>	Pigtail or Terminal Strip	
<b>Certifications</b>	"FICAM tested <sup>7</sup> , UL294 (US & Canada), FCC Certification (US), RoHS2"	
<b>Housing Material</b>	UL94 Polycarbonate	
<b>UL Ref Number</b>	RK40E	RPK40E
<b>Warranty</b>	Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)	

<sup>1</sup> 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.

<sup>2</sup> Measured using the SIO Data Model

<sup>3</sup> Standby Average - RMS current draw without a card in the RF field

<sup>4</sup> Maximum Average - RMS current draw during continuous PIV card reads

<sup>5</sup> Peak - highest instantaneous current draw during RF communication

<sup>6</sup> For cable lengths when used in Wiegand mode see "pivCLASS Reader Installation Guide" PLT-01134 A.1

<sup>7</sup> FICAM tested as part of complete physical access control systems



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