





## STRONG AUTHENTICATION AT THE DOOR

- Enables upgrade to FIPS 201 compliance Performs the cryptographic functions the typical physical access control system (PACS) panel cannot.
- Configurable Wiegand output format Matches PACS's desired format and bit length. Enables mandated PKI at the door without upgrading PACS controller or head-end software.
- Validates PKI-based smart cards Authenticates PIV, PIV-I, CIV (a.k.a., PIV-C), TWIC, FRAC and CAC cards. Performs path validation and certificate revocation checking using CRL, OCSP or SCVP.
- Meets regulatory requirements Enables facilities to perform single-, two- and three-factor authentication to meet all necessary authentication modes and assurance levels specified in NIST SP 800-116 and the TWIC Reader Specification.

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

The pivCLASS Authentication Module (PAM) is an embedded computer packaged in a small form factor with pre-installed, updatable firmware. The PAM is installed between a supported reader (such as an HID Global pivCLASS\* reader) and the existing access control panel, and provides configurable Wiegand output to the controller. This enables the system to be upgraded to support PIV cards for access control without replacing the existing access control panels.\*

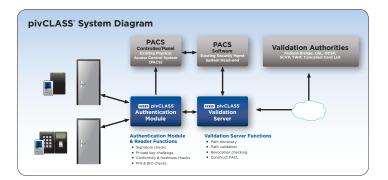
The PAM supports a range of commercially available contact, contactless and biometric readers, including an extensive line of Genuine HID™ pivCLASS readers. Each PAM can process up to two readers at one or two doors. Readers pass card information to the PAM,

which performs the required authentication to validate (or invalidate) the cardholder's credentials. If validated, the PAM derives and sends the badge ID to the access control panel for the access authorization decision.

For invalid cards, the PAM can be configured to trigger an output relay and/or to send a preset badge ID to the PACS controller. Since the PAM regularly receives and caches card and cardholder status from the pivCLASS Validation Server (PVS), the result is nearly real-time PKI-based high security at the door. In its role, the PAM does the "heavy lifting" of the PIV cardholder's credential validation each time a card is presented to a reader. Validation data is cached on the PAM, enabling it to function offline if required.

pivCLASS Authentication Module is guaranteed to meet stringent specifications for operation, reliability and interoperability with other Genuine HID products.

<sup>\*</sup> Much of the existing wiring may be reusable.





## **SPECIFICATIONS**

HID Model Number	M2000
HID Part Number	91000
Dimensions, Board	6.7" x 6.05" (17 cm x 15.4 cm)
Dimensions, Enclosure (optional)	16" x 16" x 3.5" (18.6 cm x 16.8 cm); mounting holes 7.05" x 6.35" (17.91 cm x 16.13 cm)
Input Power	12-24 VDC, 1.2 Amp - 600 mA
Output Reader Power	11.5 VDC, 300 mA (each)
Battery	Backup for real time clock
Housing Color	Gray
Operating Temperature	32°-120° F (0° - 49° C)
Operating Humidity	0% to 85% RHNC; indoor only
	INTERFACE TO READERS
Number Channels	Supports 1 or 2 readers at 1 or 2 doors
Communication	2 RS-485 serial ports
Protocols	CoreStreet Reader Protocol (CSRP), HID pivCLASS
	INTERFACE TO PACS CONTROLLER
Number Channels	Output for 1 or 2 readers
Communication	2 Wiegand ports
	INTERFACE TO PVS MANAGEMENT SYSTEM
Protocol	Ethernet TCP/IP
Security	Optional 256-bit AES encrypted Ethernet TCP/IP
Initial Configuration Security	Web interface enabled/disabled with DIP switch
	COMPLIANCE & CERTIFICATION
PVS Management Station Interface	256-bit AES encryption
Crypto Firmware	FIPS 140-2 Level 1 certified
Safety	FCC, UL 294
Module Warranty	18 months
	OPERATIONAL
Memory	2GB SD flash memory card (standard)
Number Cardholders	Up to 100,000
Firmware	Centralized, automated management of PAM firmware updates is provided by pivCLASS Validation Server (PVS)
Relay Connectors	2 configurable connectors for triggering optional auxiliary relay switches
Diagnostic Console Port	Enabled/disabled with DIP switch
Status Indicators	Color LEDs; power, tamper, reader online, fault, power failure
Offline Operation	Functions normally if communication to the PVS Management Station is interrupted
Operation Interface	Embedded browser-based interface for initial configuration, network settings and hardware options. Full PAM configuration and management via pivCLASS Validation Server's Management Station.

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