

OmniClass™ 2.0

Contactless Smart Card Readers



OmniClass™ from Honeywell is a range of 13.56 MHz contactless secure smart card readers that offers superb reliability, consistent read range and ease of installation. They are available in several sizes and each OmniClass reader incorporates smart card technology allowing the user to support biometric profiles and multiple applications on each card simultaneously.

OmniClass can retro-fit any Wiegand output reader, including standard HID® or Honeywell proximity readers.

Smart card technology is ideally suited for access control, logical (PC) access, storage of biometric templates, parking, secure ID's with embedded tamper-proof digital photos, ePurse and many other applications requiring secure and reliable read/write cards.

Multi Technology Functionality

To make it easier for customers to transition to a smart card system from a 125 kHz prox card system, the range includes options that can support HID Prox, EM4102 and AWID proximity technologies. These multi-technology readers work with all technologies simultaneously and will allow the user to transition to smart cards over time while incorporating the use of multiple card technologies within a single building or across multiple facilities.

In addition, the OmniClass reader range provides enhanced security through mutual authentication and data encryption when using the smart card credential based on the encrypted contactless communication. Whether reading proximity, OmniClass or multi-technology cards, identical user identification data formats are sent to the panel, keeping the data on the card transparent to the user.

The OmniClass reader range benefits include:

Suitable for integrated access control systems: A fast response time between two consecutive card reads makes it suitable for integrated access control and intrusion systems where a triple swipe action at the reader is needed to arm the system.

More Open: OmniClass 2.0 readers support global 13.56 MHz smart card technology standards including OmniClass, OmniClass 2.0, iCLASS®, iCLASS SR™/SE®, iCLASS® Seos™ as well as MIFARE Classic* and MIFARE DESFire EV1*. Optionally 125 kHz Prox technology is supported including HID® Prox, EM4102 and AWID

More Secure: Card numbers for OmniClass/iClass credentials are safely stored and transmitted using 64-bit authentication keys encryption, which is suitable for most access control applications. A higher level of security can be achieved using the AES encrypted iClass SE/ iCLASS Seos and MIFARE DESFire EV1 credentials. Additional keypad versions are available for dual authentication.

Convenience: Card numbers are printed on the OmniClass cards/credentials. MIFARE Card Serial Numbers (CSN) also supported. Interoperability between vendors & applications is possible via the smart card's accessible memory.

Easy to install: Two piece installation, only mounting plate and reader. Wiegand output for new and retrofit installations, indoor and outdoor.

Simple transition from 125 kHz PROX to OmniClass smart cards: Multi technology OmniClass readers make it easy for a HID Prox, EM4102 or AWID card based technology system to transition to an OmniClass smart card based solution.

FEATURES

- Supports multiple ISO standards: Allows OmniClass 2.0 to read most ISO standard smart card.
- Custom MIFARE Classic and MIFARE DESFire EV1 optionally available
- High-Security: Encrypted data exchange available between card and reader and between reader and host reduces the risk of compromised data and duplicated cards.
- Available in mullion, switch plate and wall-mount sizes
- ADA compliant built-in audible beeper
- Host LED control (programmable)
- Control cards (optional) can be used to manage security keys and change the operating characteristics of the reader
- Hidden mounting screws deter vandalism
- Potted for superior weather resistance
- Wiegand output
- Reads HID Prox, EM4102 and AWID and OmniClass credentials (Multi technology models only)
- Ideal solution for card technology transition (Multi technology models only)

* Note about MIFARE Classic and MIFARE DESFire EV1 technologies.

The OmniClass 2.0 reader range is by default compatible with HID® SE for MIFARE and HID SE for DESFire EV1 credentials.

Optionally it is possible to configure the OmniClass 2.0 readers with custom user defined keys MIFARE Classic and MIFARE DESFire EV1.

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SPECIFICATIONS

SMART CARD READERS



Part Number	OM15BHOND OM15BHONDT	OM30BHOND OM30BHONDT	OM40BHOND OM40BHONDT	OM45BHOND OM45BHONDT	OM55BHOND OM55BHONDT
Mounting	Large Mullion Size suited for mullion-mounted door installations or any flat surface	Mullion Size suited for mullion-mounted door installations or any flat surface	Wall Switch Size designed to mount and cover single US gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing	EU / APAC Square Size 83.8 mm (3.3") square reader is designed to mount to and cover standard European and Asian back boxes	Wall Switch Size designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing
Keypad	No				Yes
Housing Colour	Black				
Dimensions (W x H x D)	4.8 x 15.3 x 2.3 cm 1.9" x 6.0" x 0.9"	4.8 x 10.3 x 2.3 cm 1.9" x 4.1" x 0.9"	8.4 x 12.2 x 2.4 cm 3.3" x 4.8" x 1.0"	8.4 x 8.4 x 2.3 cm 3.3" x 3.3" x 0.9"	8.5 x 12.2 x 2.8 cm 3.3" x 4.8" x 1.1"
Typical Read Ranges *					
OmniClass/iCLASS credential	7.6 cm / 3.0"	7.6 cm / 3.0"	11.4 cm / 4.5"	8.9 cm / 3.5"	12.7 cm / 5.0"
2k/16k Smart (OKP0.../ OKP2...)	7.6 cm / 3.0"	7.6 cm / 3.0"	11.4 cm / 4.5"	8.9 cm / 3.5"	12.7 cm / 5.0"
iClass SE credential	3.2 cm / 1.25"	3.2 cm / 1.25"	4.4 cm / 1.75"	5.1 cm / 2.0"	4.4 cm / 1.75"
Key/tag Smart(PXKEYH.../OKS...)					
MIFARE / DESFire credential					
SE for MIFARE Classic ISO card	5.7 cm / 2.25"	5.7 cm / 2.25"	8.9 cm / 3.5"	7.6 cm / 3.0"	11.4 cm / 4.5"
SE for MIFARE Classic Key/tag	1.3 cm / 0.5"	1.3 cm / 0.5"	3.8 cm / 1.5"	3.8 cm / 1.5"	3.8 cm / 1.5"
SE for DESFire EV1 ISO card	5.1 cm / 2.0"	5.1 cm / 2.0"	8.3 cm / 3.25"	5.1 cm / 2.0"	5.7 cm / 2.25"
Smart Card Compatibility	15693: Reads iClass/OmniClass credentials, card serial number 14443B: Reads iClass/OmniClass credentials (secure)				
Additional ISO support	14443A 1-3: Reads NXP MIFARE Classic credentials, Sector 14443A 1-4: Reads NXP MIFARE DESFire EV1 credentials, AES Encrypted files 14443A: Reads NXP MIFARE Classic, DESFire EV1 credentials, Card Serial Number (CSN or UID)				
Key Length	iClass/OmniClass 64 bit encryption iClass SE / iCLASS Seos 128 bit AES Encryption SE for MIFARE Classic / SE for DESFire EV1 128 bit AES Encryption				
Data Encryption	Available between card and reader (OmniClass and iClass) Additionally on credential (SE for MIFARE Classic and MIFARE DESFire EV1)				
Crypto Processor Hardware Common Criteria Rating	EAL5+				
Regulatory Approvals	UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRR (China), KC (Korea), NCC (Taiwan), iDA (Singapore)				
Operating Temperature	-31° to 150° F (-35° to 65° C)				
Operating Humidity	5 to 95% relative humidity (non-condensing)				
Operating Voltage Range	5 - 16 VDC				
Current	60mA	60mA	65mA	65mA	85mA
Normal standby current	90mA	90mA	90mA	90mA	100mA
Maximum average current					
Termination	9 wire 45 cm Pigtail (D- version) or 9 wire terminal block (DT-version)				
Tamper Output	Available (Optical sensor)				
Hold Wire input	Yes				
Panel Interfaces	(all built-in) Wiegand				
IP Rating	IP55				
Warranty**	Limited Lifetime				

* Typical read range achieved in air. Different types of metal will cause some degradation.

**See Honeywell Security Group's Sales Policy for complete details.

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SPECIFICATIONS

SMART CARD AND 125 kHz PROX MULTI TECHNOLOGY READERS



Part Number	OM16BHOND OM16BHOND T	OM31BHOND OM31BHOND T	OM41BHOND OM41BHOND T	OM46BHOND OM46BHOND T	OM56BHOND OM56BHOND T
Mounting	Large Mullion Size suited for mullion-mounted door installations or any flat surface	Mullion Size suited for mullion-mounted door installations or any flat surface	Wall Switch Size designed to mount and cover single US gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing	EU / APAC Square Size 83.8 mm (3.3") square reader is designed to mount to and cover standard European and Asian back boxes	Wall Switch Size designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing
Keypad	No				Yes
Housing Colour	Black				
Dimensions (W x H x D)	4.8 x 15.3 x 2.3 cm 1.9" x 6.0" x 0.9"	4.8 x 10.3 x 2.3 cm 1.9" x 4.1" x 0.9"	8.4 x 12.2 x 2.4 cm 3.3" x 4.8" x 1.0"	8.4 x 8.4 x 2.3 cm 3.3" x 3.3" x 0.9"	8.5 x 12.2 x 2.8 cm 3.3" x 4.8" x 1.1"
Typical Read Ranges * OmniClass/iCLASS credential 2k/16k Smart (OKP0.../ OKP2...) iClass SE credential Key/tag Smart(PXKEYH.../OKS...)	6.4 cm / 2.5" 6.4 cm / 2.5" 2.5 cm / 1.0"	6.4 cm / 2.5" 6.4 cm / 2.5" 2.5 cm / 1.0"	11.4 cm / 4.5" 11.4 cm / 4.5" 5.7 cm / 2.25"	8.3 cm / 3.25" 8.3 cm / 3.25" 3.8 cm / 1.5"	11.4 cm / 4.5" 11.4 cm / 4.5" 5.7 cm / 2.25"
MIFARE / DESFire credential SE for MIFARE Classic ISO card SE for MIFARE Classic Key/tag SE for DESFire EV1 ISO card	5.7 cm / 2.25" 1.3 cm / 0.5" 2.5 cm / 1.0"	5.7 cm / 2.25" 1.3 cm / 0.5" 2.5 cm / 1.0"	10.2 cm / 4.0" 3.8 cm / 1.5" 5.1 cm / 2.0"	5.7 cm / 2.25" 2.5 cm / 1.0" 5.1 cm / 2.0"	10.2 cm / 4.0" 3.8 cm / 1.5" 5.1 cm / 2.0"
Proximity credential (125kHz) HID Prox / AWID ISO Card HID Prox / AWID Key/tag EM4102 ISO Card	5.1 cm / 2.0" 2.5 cm / 1.0" 8.9 cm / 3.5"	5.1 cm / 2.0" 2.5 cm / 1.0" 8.9 cm / 3.5"	6.4 cm / 2.5" 3.8 cm / 1.5" 10.2 cm / 4.0"	5.7 cm / 2.25" 3.2 cm / 1.25" 5.1 cm / 2.0"	6.4 cm / 2.5" 3.8 cm / 1.5" 7.6 cm / 3.0"
Smart Card Compatibility	15693: Reads iClass/OmniClass credentials, card serial number 14443B: Reads iClass/OmniClass credentials (secure)				
Additional ISO support	14443A 1-3: Reads NXP MIFARE Classic credentials, Sector 14443A 1-4: Reads NXP MIFARE DESFire EV1 credentials, AES Encrypted files 14443A: Reads NXP MIFARE Classic, DESFire EV1 credentials, Card Serial Number (CSN or UID)				
125kHz proximity compatibility	HID Prox, AWID and EM4102				
Key Length	iClass/OmniClass 64 bit encryption iClass SE / iCLASS Seos 128 bit AES Encryption SE for MIFARE Classic / SE for DESFire EV1 128 bit AES Encryption				
Data Encryption	Available between card and reader (OmniClass and iClass) Additionally on credential (SE for MIFARE Classic and MIFARE DESFire EV1)				
Crypto Processor Hardware Common Criteria Rating	EAL5+				
Regulatory Approvals	UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRC (China), KC (Korea), NCC (Taiwan), iDA (Singapore)				
Operating Temperature	-31° to 150° F (-35° to 65° C)				
Operating Humidity	5 to 95% relative humidity (non-condensing)				
Operating Voltage Range	5 - 16 VDC				
Current Normal standby current Maximum average current	75mA 100mA	75mA 100mA	85mA 100mA	85mA 100mA	95mA 105mA
Termination	9 wire 45 cm Pigtail (D- version) or 9 wire terminal block (DT-version)				
Tamper Output	Available (Optical sensor)				
Hold Wire input	Yes				
Panel Interfaces	(all built-in) Wiegand				
IP Rating	IP55				
Warranty**	Limited Lifetime				

* Typical read range achieved in air. Different types of metal will cause some degradation.

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ORDERING

Readers		Credentials	
OmniClass 2.0 Smart Card Readers		OmniClass Series Smart Credentials	
OM15BHOND	OmniClass 2.0 Long Mullion Mount Reader, Black Bezel, 45 cm pigtail	OKP0N26	OmniClass 2K2 PVC Card (26-bit)
OM30BHOND	OmniClass 2.0 Mullion Mount Reader, Black Bezel, 45 cm pigtail	OKP0N34	OmniClass 2K2 PVC Card (34-bit)
OM40BHOND	OmniClass 2.0 Switch Plate, Single-gang (US) Reader, Black Bezel, 45 cm pigtail	OKP2N26	OmniClass 16K16 PVC Card (26-bit)
OM45BHOND	OmniClass 2.0 Switch Plate, Single-gang (UK/EU/Asian) Reader, Black Bezel, 45 cm pigtail	OKP2N34	OmniClass 16K16 PVC Card (34-bit)
OM55BHOND	OmniClass 2.0 Reader with Keypad, Black Bezel, 45 cm pigtail	PXKEYH16K1626	OmniClass 16K16 Key fob (26-bit)
OM15BHONDT	OmniClass 2.0 Long Mullion Mount Reader, Black Bezel, terminal strip	PXKEYH16K16	OmniClass 16K16 Key fob (34-bit)
OM30BHONDT	OmniClass 2.0 Mullion Mount Reader, Black Bezel, terminal strip	OmniClass Series Special Smart Credentials	
OM40BHONDT	OmniClass 2.0 Switch Plate, Single-gang (US) Reader, Black Bezel, terminal strip	OKP2M26	OmniClass 16K16 PVC Card (26-bit) with Magnetic Stripe
OM45BHONDT	OmniClass 2.0 Switch Plate, Single-gang (UK/EU/Asian) Reader, Black Bezel, terminal strip	OKP2M34	OmniClass 16K16 PVC Card (34-bit) with Magnetic Stripe
OM55BHONDT	OmniClass 2.0 Reader with Keypad, Black Bezel, terminal strip	OKH2N26	OmniClass 16K16 PVC Card plus HID Prox (26-bit)
OmniClass 2.0 Multi Technology readers		OKH2N34	OmniClass 16K16 PVC Card plus HID Prox (34-bit)
OM16BHOND	OmniClass 2.0 Multi Technology Long Mullion Mount Reader, Black Bezel, 45 cm pigtail	OKH2M26	OmniClass 16K16 PVC Card plus HID Prox (26-bit) with Magnetic Stripe
OM31BHOND	OmniClass 2.0 Multi Technology Mullion Mount Reader, Black Bezel, 45 cm pigtail	OKH2M34	OmniClass 16K16 PVC Card plus HID prox (34-bit) with Magnetic Stripe
OM41BHOND	OmniClass 2.0 Multi Technology Switch Plate, Single-gang (US) Reader, Black Bezel, 45 cm pigtail	OKS2N26	OmniClass 16K16 Sticker (26-bit)
OM46BHOND	OmniClass 2.0 Multi Technology Switch Plate, Single-gang (UK/EU/Asian) Reader, Black Bezel, 45 cm pigtail	OKS2N34	OmniClass 16K16 Sticker (34-bit)
OM56BHOND	OmniClass 2.0 Multi Technology Reader with Keypad, Black Bezel, 45 cm pigtail	MIFARE Classic and DESFire EV1 Smart Credentials	
OM16BHONDT	OmniClass 2.0 Multi Technology Long Mullion Mount Reader, Black Bezel, terminal strip	PVCHMF1KSE	SE for MIFARE Classic 1K PVC Card (34-bit)
OM31BHONDT	OmniClass 2.0 Multi Technology Mullion Mount Reader, Black Bezel, terminal strip	PVCHMF1KSE26	SE for MIFARE Classic 1K PVC Card (26-bit)
OM41BHONDT	OmniClass 2.0 Multi Technology Switch Plate, Single-gang (US) Reader, Black Bezel, terminal strip	PVCHDF8KSE	SE for MIFARE DESFire EV1 8K PVC Card (34-bit)
OM46BHONDT	OmniClass 2.0 Multi Technology Switch Plate, Single-gang (UK/EU/Asian) Reader, Black Bezel, terminal strip	PVCHDF8KSE26	SE for MIFARE DESFire EV1 8K PVC Card (26-bit)
OM56BHONDT	OmniClass 2.0 Multi Technology Reader with Keypad, Black Bezel, terminal strip	Compatible credentials with Multi Technology readers only	
		HID Prox Credentials	
		PVCH4	PVC Card HID Prox, 34 bit
		PVCH4-26	PVC Card HID Prox, 26 bit
		PVCH5	PVC Card HID Prox, 34 bit, with Magnetic Stripe
		PVCH5-26	PVC Card HID Prox, 26 bit, with Magnetic Stripe
		PX4H	Clamshell Card HID Prox, 34 bit
		PX26H	Clamshell Card HID Prox, 26 bit
		PXKEY3H	Proximity Key fob HID Prox, 34 bit
		PXKEY3H26	Proximity Key fob HID Prox, 26 bit
		Compatible EM4102 Credentials	
		YX0-0002	PVC card for Galaxy Max and KeyProx
		YX0-0004	Keytag Black Galaxy MAX
		YX0-0020	Keytag Grey for Galaxy Keyprox

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For additional information,

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