## ISO14443 READERS





INID ISO14443 readers are flexible by design. Only one application for access control that supports single and multi card environments for multiple ISO14443 technologies and NFC. INID ISO14443 readers come in various models: with and without PIN keypad and with different interfaces. The field programmable capabilities of INID ISO14443 readers future proof your investment.

#### **Technologies**

INID ISO14443 readers support:

**ISO14443-3A:** Mifare Classic, Mifare Ultra Light and

Mifare Plus level 1.

ISO14443-4A: DESFire 0.6 & EV1, SmartMX and

Mifare Plus level 2 & 3.

**ISO14443-4B:** Infineon, Atmel and ST microelectronics.

**NFC:** peer-to-peer.

### **Multi-card capabilities**

INID ISO14443 readers can be programmed to support up to five different card sets. Each card set defines: card type, input data handling, output data format, and protocol. This feature enables the use of a mixed card population with different card types, data encodings and or security settings. This feature makes the INID ISO14443 reader ideal for transitioning from one card technology to another or add existing card populations to your system.

#### INID ISO14443 PIN readers

INID ISO14443 readers with PIN keypad provide a 3  $\times$  4 matrix in a mullion style housing with back lighted symbols. The lighting is started by either pressing any key or presenting a card. PIN code entry is configurable from one to twelve characters in a PIN code string. Key encoding is provided by means of customer defined key tables. The back lighted feature allows for installation and use in low-light environments.

#### **Output protocols**

INID ISO14443 readers support: Wiegand, Clock & Data, TTL serial, RS232, RS485, RS422, and CAN (see: Protocol interfaces and models).

#### **Card handling**

Card handling is provided in both transparent mode and reader mode. In transparent mode the reader automatically creates the requested output based on the information programmed in "auto formatted" cards. In reader mode, the requested output is created via the programmed parameters that control the operation of the highly flexible read and data engines of the reader.

#### In Field programmable

INID ISO144443 readers are field programmable. Dismounting of readers is not required with contactless programming cards. Field programming allows changes to the function of the reader, adoption to changing security requirements, and loading of new firmware with new technologies and features.

#### **Security features**

INID ISO14443 readers provide as standard several extra security features:

**Tamper detection:** To detect opening of the reader housing, signaling is provided via customer defined actions.

**Key store:** Each reader contains uniquely AES encrypted key storage for reader and card security keys.

**Key diversification:** is available on all supported technologies to provide higher security by uniquely securing the data on the card.



# TECHNICAL SPECIFICATIONS



Power supply			
Voltage range		7 – 24	Volt DC
Power consumption	INID ISO14443 AC	1300 mW (average)	1750 mW (peak)
	INID ISO14443 AC PIN	1300 mW (average)	2050 mW (peak)
Current consumption @ 12 V DC	INID ISO14443 AC	110 mA (average)	146 mA (peak)
	INID ISO14443 AC PIN	110 mA (average)	171 mA (peak)

Environment	
Usage	Indoor and outdoor
Humidity	0 – 95% non condensing
Temperature	Temperature -25 to +65 °C / -15 to 150 °F
Protection class	IP54

Mechanical	
Dimensions	143x46x25 mm / 5.63"x1.8"x1"
Materials	UL94 V0 LEXAN

Technologies	
ISO14443-3A	Mifare, Mifare Ultra Light, Mifare Plus level 1
ISO14443-4A	DESFire 0.6 & EV1, SmartMX, Mifare Plus level 2&3
ISO14443-4B	Infineon, Atmel, ST Microelectronics
NFC	Active mode on all models

Protocol interfaces and models			PIN
Wiegand	Active driven 0 - 5 VDC or		
Clock and Data	open drain	500-5000	500-5040
TTL serial	0 – 5 Volt levels		
RS232	Separate model	500-5010	500-5050
RS485/RS422	Separate model	500-5020	500-5060
CAN	Separate model	500-5030	500-5070

User feedback	
Bi-color LED bar	Single bar or two controllable sections
Sounder	Multi-tone

Security features	
Tamper detection	Detect and signal open housing
Key store	Per reader uniquely encrypted key storage
SAM AV2	Optional

Installation	
Connections	Detachable 8 pin connector
Mounting	Two piece housing, front with electronics and wall mounting plate

PIN model specific	
Actuators	Mechanical switch
Actions	1.000.000 times minimum
Indicators	Back lighted symbols, sound and LED bar action

Compliance	
Listings	EN 50130-4 , CE, FCC

Additional provisions	
Expansion bus	Provision for add-on modules

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INID cares for the environment, we design our products to be durable and suitable for complete recycling. Our aim is to provide a cradle to cradle life cycle.

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