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aptiQ™

Smart Technology

Readers and Credentials

Ingersoll Rand®

Introducing
aptiQ™ smart technology

simpler. smarter. better.

Are you looking for hassle-free, flexible and affordable security solutions that can be easily and effortlessly applied and maintained?

Step in aptiQ™ - an intelligent system from Ingersoll Rand that is simplifying the security industry like never before.

Ingersoll Rand's aptiQ readers and credentials combine cutting-edge security technology with the ability to transform basic access control products into single, integrated solutions - for enhanced convenience. Utilising an open architecture design, the aptiQ line of multi-technology readers are capable of interfacing with most systems and security products on the market making them ultra-versatile and the perfect choice for businesses and facilities looking to simplify their transition from older security platforms.

Accommodating most manufacturers' proximity cards, XceedID MIFARE smart cards, highly secure aptiQ smart cards and the latest in mobile technology (NFC), aptiQ smart and multi-technology readers have a solution for any physical access control need. With a forward-thinking product portfolio behind it, aptiQ can not only work seamlessly with the system you have, now, to equip you with the security you need today - but can also provide you with the support for any new technologies you adopt tomorrow.

Working in perfect synergy, aptiQ contactless smart credentials come with a variety of data storage options, highly impressive data transfer rates and a wide offering allowing you to select the best option to suit your specific budget or security requirements. Whether you're after a highly secure smart card option that can be used for other applications or, a traditional proximity technology for less demanding installations - Ingersoll Rand has a credential solution to suit nearly every situation.

Simpler ... more freedom for you.

So what benefits could an aptiQ multi-technology reader bring your integrated security solution? Simplicity for starters! As well as being easy to install and 100% user-friendly an aptiQ reader is also adaptable to most access control systems and dynamic enough to welcome any change.

In fact, that's exactly why we designed it; to simplify your specific access control solutions both now and in the future.

PRODUCT FEATURES:

- **aptiQ™ smart technology**
  MIFARE DESFire™ EV1
- **Highly secure smart technology**
  Mutual authentication between the card and reader, encrypted communication, and diversified keys protect data integrity and prevent unauthorised access
- **Open architecture**
  Multi-technology reader lineup that is able to read proximity, XceedID® MIFARE®, and aptiQ™ MIFARE DESFire™ EV1 smart credentials
- **A simple transition solution**
  aptiQ™ makes your next technology upgrade simple and seamless when transitioning from proximity to smart technology
- **Attractive, modern design**
  Four contemporary designs with multiple colour options guaranteed to complement any facility's architecture and decor
- **Near Field Communication compatible**
  Compatible with aptiQ Mobile Credentials
- **Easy installation**
  With standard wiring, quick-connect wiring harness and simplified mounting bracket
- **Easy sense sight and sound indicators**
  LEDs plus audio feedback provide status for visually or audibly impaired
- **Communication options**
  A standard Wiegand output provides flexiblity in choosing access control systems, and an optional RS-485 output provides more robust security
- **Smart compatibility**
  Compatible with Ingersoll Rand stand alone 'mechatronic' door locks enabling aptiQ™ cards to be utilised in a PegaSys system

aptiQ™ Contactless Credentials

Smarter ... means you can store more than ever before.

With aptiQ™ credentials it's all about doing more with less effort.

More data storage, to enable a broader variety of unique, demanding applications like biometrics and cashless vending.

Faster data transfer for the ultimate efficiency and transaction safety. And a high-security platform, with encryption and mutual authentication to keep people, data, and assets safe and secure.

PRODUCT FEATURES:

- **Superior data storage**
  2K, 4K, and 8K bytes (16K, 32K, and 64K bits) of memory, providing high data storage options to meet the most demanding application needs
- **Impressive data transfer rates**
  Up to 848 kbps baud rate. That's roughly the same as transferening 100 pages from an encyclopedia - every second.
- **Protects your most sensitive data with extra layers of security protection**
  Mutual authentication, AES 128-bit diversified key encryption, and message authentication coding (MAC) provides the high security that MIFARE DESFire™ EV1 is known for.
- **Open architecture design leaves the door open**
  Built to ISO 14443 standards, allowing for the addition of applications for biometrics, transit, and point of sale applications such as cashless vending and cafeteria services.

FORM FACTORS:

ISO-STYLE CARD

CLAMSHELL

KEY FOB

ADHESIVE PVC PATCH

Better ... forward-thinking solutions with style.

When you need both smart and proximity technology, we read you.

Our comprehensive yet simple-to-use reader lineup is suitable for any new smart or proximity installation. What's more, our multi-technology readers can be used both economically and at your own pace, to transition your existing proximity system over to smart technology. Easy to install and stylish in design, these readers can perfectly complement any facility's decor.

With the latest in both smart card and traditional proximity technology, we have an option for every budget and business need.

aptiQ™ *Reader Options & Features*

Our readers use an open architecture design following ISO 14443 standards and Wiegand protocol for interoperability with many popular access control systems.

aptiQ™
Multi-Technology
Single Gang Reader
with Keypad

Model MTK15

Frequency
13.56 MHz and 125 kHz

aptiQ™
Multi-Technology
Single Gang Reader

Model MT15

Frequency
13.56 MHz and 125 kHz

Model MTK15

Ideal for any new smart or proximity installation or as a cost-effective way to migrate from existing proximity to smart technology

Features:
- 13.56MHz and 125kHz technology in one reader
- RS-485 optional
- Anti-microbial keypad
- Compatible with: aptiQ MIFARE DESFire EV1, MIFARE classic, most popular proximity credentials, CSN of most existing 13.56MHz credentials

Model MT15

Ideal for any new smart or proximity installation or as a cost-effective way to migrate from existing proximity to smart technology

Features:
- 13.56MHz and 125kHz technology in one reader
- RS-485 optional
- Compatible with: aptiQ MIFARE DESFire EV1, MIFARE classic, most popular proximity credentials, CSN of most existing 13.56MHz credentials

Available Finishes

Black (Standard)

Cream

Cool Tone Gray

Warm Tone Brown

aptiQ™ Multi-Technology Mullion Reader

Model MT11

Frequency
13.56 MHz and 125 kHz

aptiQ™ Smart Mini-Mullion Reader

Model SM10

Frequency
13.56 MHz

Model MT11

Ideal for any new smart or proximity installation or as a cost-effective way to migrate from existing proximity to smart technology

Features:
- 13.56MHz and 125kHz technology in one reader
- RS-485 optional
- Compact, unobtrusive design allows for easy installation in small spaces
- Compatible with: aptiQ MIFARE DESFire EV1, MIFARE classic, most popular proximity credentials, CSN of most existing 13.56MHz credentials

Model SM10

Ideal for a smart only installation

Features:
- 13.56MHz technology
- Compact, unobtrusive design allows for easy installation in small spaces
- Compatible with: aptiQ MIFARE DESFire EV1, MIFARE classic, CSN of most existing 13.56MHz credentials

In Detail
aptiQ™ smart technology

	Model - MTK15	Model - MT15	
Reader Type	*Multi-Technology single gang keypad*	*Multi-Technology single gang*	
Frequency	*13.56MHz & 125kHz*	*13.56MHz & 125kHz*	
Standard Default PIV Output	*75 bit PIV*	*75 bit PIV*	
Standards	ISO 14443A, 14443B, 15693	ISO 14443A, 14443B, 15693	
Certification	FCC Certification • IC Certification • UL 294 Listed • R&TTE Directive (15 EU Countries) • CE Mark • IP65		
Voltage Range	5-16 VDC	5-16 VDC	
Power Supply	Linear DC	Linear DC	
Current Requirement at 12v DC and 25˚C: mAmps	MTK15 & MTK15-485 Avg. 120mA MTK15 & MTK15-485 Peak 230mA	MT15 & MT15-485 Avg. 120mA MT15 & MT15-485 Peak 200mA	
Read Range	Proximity: Up to 12.7 cm; DESFire EV1: Up to 5.1 cm; MIFARE: Up to 10 cm; PIV Credential: Up to 6.5 cm		
Cable Specification	18 AWG, 5 Conductor Stranded/Shielded		
System Interfaces	Wiegand / Clock & Data / RS-485 (OSDP)	Wiegand / Clock & Data / RS-485 (OSDP)	
Cable Distance	Wiegand Output: 152 m	Wiegand Output: 152 m	
Dimensions	12.9 cm x 8.3 cm x 1.9 cm		
Operating Temperature	-35˚C to 67˚C	-35˚C to 67˚C	
Materials	PBT Polymer	PBT Polymer	
Technology Supported in Default Mode	Schlage Proximity • XceedID™ Proximity • HID® Proximity GE/CASI ProxLite® • AWID® Proximity • LenelProx® Schlage MIFARE® Secure Sector • XceedID™ MIFARE® Secure Sector aptiQ™ Smart Cards using MIFARE DESFire™ EV1 with PACSA • DESFire® CSN HID iClass® CSN • Inside Contactless PicoTag® CSN • ST Microelectronics® CSN Texas Instruments Tag-It® Serial Number • Phillips I-Code® CSN		

The quick connect wiring harness facilitates a quick and easy installation without the need to wire into the reader or controller. Just plug and go.

aptiQ credentials are also compatible with the PegaSys range of stand-alone electronic locks from Ingersoll Rand Security Technologies.

	Model - MT11		Model - SM10
	Multi-Technology Mullion		*Smart Mini-Mullion*
	13.56MHz & 125kHz		*13.56MHz*
	75 bit PIV		*75 bit PIV*
	ISO 14443A, 14443B, 15693		ISO 14443A, 14443B, 15693
	FCC Certification · IC Certification · UL 294 Listed · R&TTE Directive (15 EU Countries) · CE Mark · IP65		
	5-16 VDC		5-16 VDC
	Linear DC		Linear DC
	MT11 Avg. 100 mA MT11 Peak 135 mA	MT11-485 Avg. 115 mA MT11-485 Peak 145 mA	Avg. 95 mA Peak 195 mA
	As MTK15 and MT15		MIFARE: Up to 7.5 cm DESFire EV1: Up to 5.1 cm
	18 AWG, 5 Conductor Stranded/Shielded		
	Wiegand / Clock & Data / RS-485 (OSDP)		Wiegand / Clock & Data
	Wiegand Output: 152 m		Wiegand Output: 152 m
	15 cm x 4.4 cm x 2.1 cm		10.8 cm x 4.4 cm x 2.1 cm
	-35°C to 67°C		-35°C to 67°C
	PBT Polymer		PBT Polymer
	As MTK15 and MT15		Schlage MIFARE® Secure Sector XceedID™ MIFARE® Secure Sector aptiQ™ Smart Cards using MIFARE DESFire™ EV1 with PACSA DESFire® CSN · HID iClass® CSN Inside Contactless PicoTag® CSN ST Microelectronics® CSN Texas Instruments Tag-It® Serial Number Phillips I-Code® CSN

aptiQ™

Access security made simpler, smarter, better.

Experience integrated security solutions in a refreshing new way. Whether you need multi-technology readers or credentials—or both—our knowledgeable sales and support staff is ready to assist you.

Contact us today.

www.securitytechnologies.ingersollrand.com
or call 01922 707400

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Ingersoll Rand Security Technologies is a leading global provider of products and services that make environments safe, secure and productive. The sector's market-leading products include electronic and biometric access control systems; time & attendance and personnel scheduling systems; mechanical locks and portable security; door controls, exit devices and architectural hardware; performance steel doorsets and automated openings; and other technologies and services for global security markets.

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