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Data Sheet

Multi-Technology Readers

Features That Make a Difference

- Reads over 12 different types of proximity cards and contactless smart cards including ioProx with Kantech XSF format1
- Uses encryption and custom keys for secure transmission of card data
- Download new functionality or enhancements for a future-proof solution
- Optional keypad for two-factor verification
- Mount on metal with isolation spacer
- Indoor/outdoor use
- Built-in tamper switch provides secure installation
- Plug-in screw terminals reduce installation time
- Configurable Wiegand output
- Lifetime warranty

Single Reader Solution for Multiple Technologies

Kantech Multi-Technology Readers are one of the industry's most versatile card readers with their ability to read serial numbers from multiple 13.56 MHz smart card technologies, MIFARE® encrypted sectors, and most of the common 125 KHz proximity cards including ioProx with Kantech XSF format – all with one reader. This cost-effective solution enables you to transition from proximity to smart cards over time or to utilize both smart cards and proximity cards concurrently in your facility.

Multi-Technology Readers are configurable to read encrypted MIFARE® sectors using standard or custom MIFARE read keys. These readers also feature a keypad model which outputs keypad commands and a PIN in 8-bit burst Wiegand data.

Important features such as a built-in tamper switch, two-piece connectors, and isolation spacers help reduce installation time. Coupled with robust environmental ratings and a lifetime warranty, Multi-Technology Readers are the clear choice for companies looking for a powerful, cost-effective way to use various card technologies.

(1) Reader continuously cycles between 125 KHz and 13.56 MHz and, depending on the frequency cycle when card is presented, the reader will either output the proximity card number or the unencrypted smart card serial number.

Specifications

Physical	
Model P345MTR	111 x 84 x 28 mm (4.37 x 3.31 x 1.10 in), single-gang
Model P345KPMTR	111 x 84 x 28 mm (4.37 x 3.31 x 1.10 in), single-gang with keypad
Minimum Wiring	Five conductors including one LED control line
Cable Recommendations	22 AWG [60 m (200 ft) max] or 18 AWG [150 m (500 ft) max], stranded
Wiring Terminations	Plug-in screw terminals
Color	Black
Accessories	European surface mount kit Isolation spacer
Environmental	
Environmental	UL listed for interior or exterior
Operating Temperature	-35° to 67°C (-31º to 151ºF)
Humidity Range	0 to 100%
Index of Protection	IP65
Electrical	
Power Supply	9.4 to 16 VDC 125 mA max @ 12 VDC
Regulatory	
Agency Certifications	FCC Part 15, CE, UL 294 full outdoor
Compliance	ISO 14443A, ISO 14443B, ISO 15693
Operational	
Read Range	Up to 102 mm (4 in) depending on technology of card
Read Time	Technology dependent (typically <300 msec)
Programming and Format Information	
Wiring Connector Pinouts	Pin Description 1..... Beeper 2..... Ground 3..... Power (9.4 to 16 VDC) 4..... D1 Wiegand 5..... D0 Wiegand 6..... Reserved for future use 7..... External green LED control 8..... External red LED control 9..... A – RS485 – used for flash upgrade 10..... B – RS485 – used for flash upgrade 11..... Tamper (normally closed) 12..... Tamper (normally closed)
Card Technologies Supported	ioProx Kantech XSF, HID with Kantech Secured Format (KSF), HID proximity, CASI® ProxLite®, Deister proximity, ISO 14443A serial number, MIFARE® serial number, DESFire serial number, ISO 14443B serial number, ISO 15693 serial number, iCLASS® serial number, MIFARE sectors
Controller Communications	Wiegand

Configurable Using Program Card	Pass-through[2] Fixed length[3] (26-bit, 32-bit, 35-bit, 37-bit, 64-bit) CASI ProxLite 44-bit pass-through MIFARE sectors - Select a sector (0-15) - Customize encryption keys - Specify data format (number of bits output) - Enable PIN-on-smart-card functionality

(2) Pass-through – the default setting for Kantech Multi-Technology Readers that allows the reader to send all the data on the card.

(3) Fixed length – the reader can be configured to output a fixed length by padding or truncating data on the card.

Ordering Information

Model Number	Description
P345MTR	Multi-Technology reader with ioProx support, smart card & proximity, up to 10.2 cm (4 in) read range depending on technology of card, single-gang, black
P345KPMTR	Multi-Technology reader with ioProx support, integrated keypad, smart card & proximity, up to 10.2 cm (4 in) read range depending on technology of card, single-gang , black

Approvals

CE

About Johnson Controls

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our 120,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat.

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