1. GENERAL
	* + 1. WARRANTY
				1. Special Warranty:

**EDIT** - Verify

Warranty Period: Years from date of Substantial Completion, for durations indicated.

**EDIT** - Retain applicable subparagraphs below.

The Proximity card readers shall provide a lifetime warranty against defects in materials and workmanship.

1. PRODUCTS
	* + 1. access control reader OPTION – Schlage Open
				1. Manufacturer:

Scheduled Manufacturer: Schlage® MTMSK15, No substitutes will be accepted

Acceptable Substitute: **No Acceptable Substitute**

* + - * 1. Requirements: Read Only Multi-technology Contactless reader

Access control card reader shall be as manufactured by a global company who is a recognized leader in the production of access control devices. Card reader manufactured for non-access control applications shall not be acceptable.

Multi-technology contactless reader shall read access control data from magnetic stripe cards as well as keypad input, 125 kHz and 13.56 MHz contactless smart cards. The multi-technology contactless reader shall be optimally designed for use in access control applications that require reading encoded magnetic stripe data, keypad entry, 125 kHz Proximity and 13.56 MHz contactless smart cards by providing:

Configuration allows reader to be enabled to read magnetic stripe, smart, proximity or all technologies at the same time and accept keypad PIN input.

A migration platform to upgrade from the keypad PIN input, encoded magnetic stripe data to the most popular 125 kHz proximity technologies to MIFARE Classic® or MIFARE® DESFire® EV1 by reading magnetic stripe encoding, 125 kHz proximity technology and 13.56 MHz contactless smart card technology.

Guaranteed compatibility to read all standard data formats ensuring card-to-reader interoperability in multi-location installations and multi-card/reader populations when used with Schlage products.

Secure access control data exchange between the smart card and the reader utilizing diversified keys and mutual authentication sequences.

Universal compatibility with most access control systems.

Ease of installation through industry standard wiring methods.

Compatibility with legacy 125 KHz proximity access control formats (all standard formats up to 37 bits, including HID Corporate 1000 formats).

Optimal read range and read speed for increased access control throughput.

Global availability.

Product construction suitable for both indoor and outdoor applications.

Customizable behavior for indicator lights and beeper.

Multi-technology contactless reader shall comply with the following 13.56MHz-related standards to ensure product compatibility and predictability of performance:

ISO 14443

Multi-technology contactless reader shall be configurable to read 13.56 MHz data simultaneously from the following cards (multiple credential support based on reader configuration):

Secure support - MIFARE DESFire EV1with PACSA, MIFARE Classic, FIPS 201 PIV Credential

UID/CSN Support – DESFire Classic V0.06, HID iClass, ISOX (my-d)

Proximity – Schlage Proximity, XID Proximity, HID Prox, AWID, GE/CASI, Lenel Prox, Inside Pictotag, TI Tagit, ST Micro

Multi-technology contactless reader shall be configurable to read data from any compatible encoded magnetic stripe card and 125 kHz technology simultaneously with 13.56 MHz data. Compatible 125 kHz technologies include:

XCEEDID/Schlage/HID Prox (format in the card – formats up to 37-bits supported)

AWID PROX (SAME AS LENEL PROX - format in the card – formats up to 42-bits)

GE PROX - two possible format options

Multi-technology contactless reader shall provide the ability to read card access data stored in the secure access control sector/application area of the ISO 14443 XceedID MIFARE or MIFARE DESFire EV1 card.

The Multi-technology contactless reader shall be configurable to provide multiple hierarchical degrees of key compatibility for accessing the smart card access control data. Compatibility shall be provided for the following key structure options:

Compatibility with the default Schlage key structure to ensure convenient off the shelf compatibility with Schlage cards and readers.

Compatibility with custom keys managed by Schlageinger which provide a site-specific, unique, protected key structure.

Compatibility with high security customer managed custom keys.

The Multi-technology contactless reader shall be configurable to provide compatibility with all standard Prox formats up to 37 bits (including Corporate 1000®).

The Multi-technology magnetic stripe reader shall be configurable to read tracks 1, 2 or 3 of an encoded magnetic stripe card.

The Multi-technology magnetic stripe reader shall be configurable to output data using Wiegand or Clock & Data protocol.

The Multi-technology keypad will have back lit keys and an audible tone for a key depress.

Multi-technology contactless reader shall be suitable for global deployment by meeting worldwide radio and safety regulatory compliance including:

FCC Certification (US)

CE (EU)

C-tick (Australia, New Zealand)

R&TTE Directive (15EU)

UL294 (US)

ULC-S319

IC (Canada)

FIPS201 / PIV I

IP65

Multi-technology contactless reader shall be fully compliant with Restriction of Hazardous Substances directive (RoHS) restricting the use of specific hazardous materials found in electrical and electronic products.

Multi-technology contactless reader shall provide universal compatibility with most access control systems by outputting card data in compliance with the SIA AC-01 Wiegand standard.

Multi-technology contactless reader shall allow for secure installation practices through mounting methods utilizing tamper resistant screws.

Multi-technology contactless reader shall provide the ability to transmit an alarm signal via and integrated optical tamper switch if an attempt is made to remove the reader from the wall. The tamper switch shall be programmable to provide a selectable action to provide a selectable action compatible with various tamper communication schemes provided by access control panel manufacturers. The selectable action shall include one of the following:

The reader open collector line changes from a high state (5V) to a low state (Ground).

If utilizing OSDP Protocol reader shall report a tamper condition via RS485.

Multi-technology contactless reader shall provide the ability for mounting to standard electrical boxes through the use of universal international mounting holes.

Multi-technology contactless reader shall be provided with a full potted assembly.

Multi-technology contactless reader shall be provided with a quick connect wire harness.

The Multi-technology contactless reader shall provide customizable reader behavior options either from the factory, or defined in the field through the use of pre-configured command cards. Reader behavior programming options shall include:

LED & Audio configurations

Ability to disable reading of specific card technologies or frequencies

ISO 14443/15693 CSN output configuration

Wiegand output spacing and timing

Multi-technology contactless reader shall provide the following programmable audio/visual indication:

An audio beeper shall provide tone sequence to signify: access granted, access denied, power up, and diagnostics.

A light bar shall provide clear visual status (red/green/amber).

Multi-technology contactless reader shall be designed for low current operation to enable migration from most legacy proximity applications without the need to replace existing access control panels and/or power supplies. Contactless smart card power requirements shall be:

Operating voltage: 5 – 16 VDC, reverse voltage protected. Linear power supply recommended.

Current requirements: 160 mA DC, 195 mA PEAK @ 12 VDC

Multi-technology contactless reader shall meet the following physical specifications:

Dimensions: 5.1” x 3.25” x 0.83” (12.9 cm x 8.3 cm x 2.1cm)

Weight: 11.2 oz (317.51 g)

Material: UL94 Polycarbonate

Plastics: Consist of three-piece design with mounting plate, potted case and aesthetic cover.

Color: Black, Gray, Brown or Cream as approved by the project architect.

Multi-technology contactless reader shall meet the following environmental specifications:

Operating temperature: -31 to 151 degrees F (-35 to 67 degrees C)

Operating humidity: 5% to 95% relative humidity non-condensing

Weatherized design suitable to withstand harsh environments

Certified rating of IP65

Multi-technology contactless reader cabling requirements shall be:

Cable distance: (Wiegand): 500 feet (150m)

Cable type: 5-conductor #22 AWG

Standard reader termination: 18” (0.5m) wire harness

The Multi-technology contactless reader shall provide a lifetime warranty against defects in materials and workmanship.

Multi-technology contactless reader shall be *MTMSK15*.

1. EXECUTION

no part 3 INFORMATION IS CONTAINED IN THIS Template.

END OF SECTION

If you require technical specifications or additional information on these products, please visit the Allegion website [here](http://us.allegion.com/en/home/products/categories/readers.html).