



ALLEGION™

PIONEERING SAFETY™

Allegion helps keep people safe where they live, work and visit. With more than 25 brands sold globally we specialize in security around the doorway and beyond: everything from residential and commercial locks, door closers and exit devices, steel doors and frames, to access control and workforce productivity solutions. Access to the proper tools and resources, as well as expert consultants, can streamline the specification process.

Allegion offers specification writing services, AIA-approved training, code consulting and other services, as well as our proprietary Overtur™ cloud-based collaboration site, to help architects specify the right door hardware solution for every type of project.

The Allegion electronic Master Specification leverages our Trusted Authority investment in infrastructure and processes enabling the Allegion team to develop, securely store, protect and transport encryption keys through the manufacturing cycle and configure them to Allegion credentials, card readers and intelligent wired and wireless locking hardware. Allegion offers both a default encryption key as well as a custom key service.

Our Trusted Authority investment extends beyond what we develop. It extends to consuming and securely storing encryption keys developed by others. Regardless of who provides the MIFARE DESFire EV credential, be it NXP or others, our mission is to ensure that the credential operates with Schlage hardware.

Allegion's portfolio includes strategic brands LCN, Schlage and Von Duprin; and other brands including Dexter by Schlage, Falcon, Glynn-Johnson, ISONAS, Ives, Kryptonite, Locknetics, Steelcraft, and Zero.

Allegion appreciates your consideration and look forward to working with you and your customers.

For additional information, contact:

Allegion
11819 North Pennsylvania Street
Carmel, IN 46032 USA
Phone: +1 877 671-7011
Web: us.allegion.com
E-mail: division28@allegion.com

MOBILE ENABLED MULTI-TECHNOLOGY READERS

MasterFormat 2020:

28 15 11.17 Combination Reader Devices

Notes to Specifier:

1. Where several alternative parameters or specifications exist, or where, the specifier has the option of inserting text, such choices are presented in **<bold text>**.
2. Explanatory notes and comments are presented in *italicized colored* text.

MOBILE ENABLED MULTI-TECHNOLOGY READERS

PART 1 GENERAL

1.01 SUMMARY

- A Section includes mobile enabled card readers configured with Schlage Default or Custom Encryption Keys utilizing MIFARE DESFire EV1 and EV2. Mobile enabled card readers also support CSN, proximity credentials and mobile devices using NFC and Bluetooth communications.
- B Related Requirements
 1. Division 08 Openings
 - a. 08 06 71 Door Hardware Schedule
 - b. 08 10 00 Doors and Frames
 - c. 08 31 13.53 Security Access Doors and Frames
 - d. 08 42 00 Entrances
 - e. 08 74 00 Non-Integrated Access Control Hardware
 2. Division 28 Electronic Safety and Security
 - a. 28 05 11 Cyber Security Requirements for Electronic Safety and Security
 - b. 28 05 31 Communications Equipment for Electronic Safety and Security
 - c. 28 06 10 Schedules for Access Control
 - d. 28 13 00 Access Control Software and Database Management
 - e. 28 14 00 Access Control System Hardware

1.02 REFERENCES

- A Abbreviations
 1. ASK – Amplitude Shift Keying
 2. CSN – Card Serial Number
 3. BLE – Bluetooth Low Energy
 4. FSK – Frequency Shift Keying
 5. NFC – Near Field Communications

6. OSDP – Open Supervised Device Protocol
7. SIA – Security Industry Association
8. SCEKS – Schlage Custom Encryption Key Service

B Definitions

1. CSN Card – A contactless smart card containing read-only RFID. Open unsecure sector as defined by ISO 14443A.

C Reference Standards

1. Underwriters' Laboratories
 - a. UL 294 - Standard for Access Control System Units
2. ISO
 - a. 14443A - Cards and security devices for personal identification — Contactless proximity objects
 - b. 15693 - Identification cards — Contactless integrated circuit cards — Vicinity cards
3. IEC 60839-11-5 – Open Supervised Device Protocol
4. FCC - 47 CFR Part 15 (Class B)
5. EN 60529 Degrees of protection provided by enclosures – IP65
6. Directive 2002/95/EC Restriction of Hazardous Substances (RoHS)

1.03 SUBMITTALS

A Product Data

1. Manufacturer's printed or electronic data sheets
2. Manufacturer's installation and operation manuals
3. Where applicable, SIA OSDP Verified documentation.

1.04 QUALIFICATIONS

- A Manufacturer shall be ISO 9001 certified with a minimum of three years' experience in manufacturing low voltage power supply equipment.
- B Manufacturer's products shall be manufactured in the United States of America.

1.05 WARRANTY

- A Manufacturer shall provide a limited lifetime warranty to the original end-user purchaser ("Original Purchaser") of our Networked Reader and a 5-Year limited Warranty on the Networked Reader Keypad, against defects in materials and workmanship under normal use and service.

END OF SECTION

PART 2 PRODUCTS

2.01 EQUIPMENT

- A Manufacturer: Allegion
 11819 North Pennsylvania Street
 Carmel, IN 46032 USA
 Phone: +1 877 671-7011
 Web: us.allegion.com
 E-mail: division28@allegion.com
- B Models: MTB11, MTB15, MTKB15
- C Alternates: None

2.02 DESCRIPTION

- A Section includes mobile enabled card readers ("readers") configured with Schlage Default or Custom Encryption Keys utilizing MIFARE DESFire EV1 and EV2. Mobile enabled card readers also support CSN, proximity credentials and mobile devices using NFC and Bluetooth communications.
- B Mounting options:
1. mullion
 2. single gang box
- The MTB11 is mullion mount. Then MTB15 and MTKB15 is single gang.*
- C Read technologies – The readers shall support the following technologies:
1. CSN
DESFire® CSN, HID iCLASS® CSN, Inside Contactless PicoTag® CSN, ST Microelectronics® CSN, Texas Instruments Tag-It®, CSN, Phillips I-Code® CSN
 2. 125 KHz proximity
Schlage® Proximity, HID® Proximity, GE/CASI® Proximity, AWID® Proximity, LenelProx®
 3. 13.56 MHz Smart card
Schlage smart cards using MIFARE Classic® EV1, Schlage smart cards using MIFARE Plus®, Schlage smart cards using MIFARE® DESFire® EV1, Schlage smart cards using MIFARE® DESFire® EV2
 4. 13.56 MHz NFC (mobile)
 5. 2.45 GHz Bluetooth (mobile)
Mobile means compatible with Bluetooth and NFC-enabled smartphones.
- D Communications: The readers shall communicate via any of the following means with the indicated max read range for each technology:
1. Proximity FSK: <2.25" (5.7 cm)> <4.5" (11.4 cm)>
 2. Proximity ASK: <2.0" (5.1 cm)> <3.75" (9.5 cm)>
 3. MIFARE Classic® EV1: <2.0" (5.1 cm)> <2.25" (5.7 cm)>
 4. MIFARE Plus®: <1.0" (2.5 cm)> <1.5" (3.8 cm)>
 5. MIFARE® DESFire® EV1: <1.25" (3.2 cm)> <2.25" (4.4 cm)>

6. MIFARE® DESFire® EV2: **<2.0" (5.1 cm)> <2.25" (5.7 cm)>**

For each of the above technologies, the first parameter indicates performance for the MTB11 million mount. The second indicates performance for the MTB15 and MTKB15 single gang products.

7. Bluetooth: **<5.0' (1.5 m)> <30.0' (9.1 m)>**

Bluetooth relates to the Schlage mobile credential. The first parameter is standard; the second, optional.

- E Keypad: The readers shall be available with the additional functionality of an integral keypad.

The MTKB15 incorporates a keypad in addition to the wireless functions.

2.03 COMMISSIONING

- A The Manufacturer shall have a mobile app available to commission and configure readers.

Allegion offers the ENGAGE mobile app to accomplish this function.

2.04 ADDITIONAL PARAMETERS

- A Electrical

1. System Interfaces

- a. Wiegand
- b. Clock & Data
- c. RS-485 with OSDP protocol

2. Voltage range: 5 – 28 VDC

3. Current requirements (either/or):

- a. 12 VDC: 80 mA average; 190 mA peak
- b. 24 VDC: 45 mA average; 100 mA peak

4. Connection: 12" 12 conductor pigtail, 22 AWG

- B The readers shall have an integral tamper switch.

- C Physical and Environmental

1. Dimensions (H x w x d): **<5.91" x 1.72" x 0.81" (15 cm x 4.4 cm x 2.1 cm)>**
<5.1" x 3.25" x 0.76" (12.9 cm x 8.3 cm x 1.9 cm)>

For each of the above sets of dimensions, the first parameter indicates dimensions for the MTB11 million mount. The second indicates dimensions for the MTB15 and MTKB15 single gang products.

2. Operating temperature: -40° to 158° F (-40° to 70° C)

3. Color options: <Black> <Cream>

Black is standard.

END OF SECTION

PART 3 EXECUTION

3.01 INSTALLERS

A Contractor personnel shall comply with all applicable state and local licensing requirements.

3.02 INSTALLATION

A Contractor shall follow Manufacturers recommended installation guidelines.

END OF SECTION