ALLEGION

aptiQ™

MT20w
Enrollment
Reader

User Guide

aptiQ

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Overview

The aptiQ MT20w multi-technology enrollment reader is designed to simplify the enrollment of proximity and smart credentials by using a computer's USB connection. The MT20w does not require software to operate, and will function on any operating system.

The MT20w is an ISO14443 and ISO15963 contactless credential reader, and is compatible with aptiQ smart credentials (MIFARE Classic and MIFARE DESFire EV1), aptiQmobile credentials, PIV credentials, and most proximity credentials up to 37-bits.

Connect the reader's USB to your operating system. You will see a series of green/red LED flashes and beeps:

- 2 green LED flashes.
- 1 red LED flash, followed by a beep.
- 3 red LED flashes, with each flash followed by a beep.

The LED will then turn red and stay on, indicating that the reader is ready. If the LED and the beeper do not respond, check the cable connections.

Put the cursor in the desired field to receive the output and present a valid credential. You will see a series of green/red LED flashes, along with a beep:

- Red LED will flash to green, followed by a beep.
- Green LED will flash back to red and stay on, indicating the reader is again ready for the next valid credential.

The enrollment reader output will place the information from the credential to the cursor's location on the screen. If a non-valid credential is presented to the enrollment reader, the red LED will not change, and there will be no beep.

Spanish and French translations are online at www.allegion.com/us.

Operational Behavior

Communication

The MT20w Enrollment Reader communicates over USB.

Output

The USB connection uses Human Interface Device (HID) Keyboard Interface that requires the user to put the cursor in the desired field to receive the output. The default output is (Hexadecimal) for the NDE "ENGAGE" product. There are other outputs available and they can be ordered when ordering the enrollment reader. If you ordered the default output and now require a different output, please contact Allegion Technical Support at 1-877-671-7011, option 2. The following are the outputs available.

Output Examples:

The examples provided were read from a 26 bit card FC 55, BID 1546

- Default Configuration - CE-401-073
  - For use with ENGAGEv Web Application
    Example - 26E0C15;26A;55;1546;
- Octal Output - CE-401-061
  - For use with Schlage Express
    Example - 0000000633406025
- FC/BID Output - CE-401-060 (SUSB89 default)
  - For use as Keystroke Emulator
    Example - 55000001546
- BID Only - CE-401-069
  - For use as Keystroke Emulator
    Example - 000001546

> **Note:** Please proceed to the following link to find a list of card formats supported by the ENGAGE (NDE) Web app.
> www.allegionengage.com

Configuration Card

Using a Configuration Card to change enrollment readers output

To change the enrollment reader output you will need a configuration card.

- Power cycle the reader
- After reader has powered up and within 60 seconds present the configuration card to the reader.
- The reader will confirm the configuration change by:
  - 2 short beeps
  - 2 flashes of Red LED
- The reader will then reset itself
  - 2 green LED flashes + beeps
  - 1 red LED flash + beep
  - 3 Red LED flashes + 3 beeps
- The LED will then turn red and stay on, indicating that the reader is ready.

RF Field

Every 100ms the RF field turns on and the reader polls for cards. The 13.56 MHZ field is on for approximately 42 ms in the default reader configuration, which is maximum complexity. The 125 kHZ field is on for approximately 20 ms in the default reader configuration, which is maximum complexity.

Specifications

Reader Specifications

Physical Dimensions	(L x W x H) 5.56" x 2.00" x .695"
Operating Temperatures	0 to 40 C
Frequency	125 kHz & 13.56 MHz
Weight	4.1 oz
Power Supply	Connect to powered USB port or via USB power
Interface	USB
Current Requirement	110 mA
Max Current Requirement	275 mA

Card Specifications

Card Read Ranges		
Card Frequency	**Card Type**	**Read Range**
125 kHz	ASK, FSK	Up to 2.5" (6.3 cm)
13.56 MHz	ISO 15693	Up to 3.0" (7.6 cm)
13.56 MHz	ISO 14443A MIFARE® Standard	Up to 2.0" (5.1 cm)
13.56 MHz	ISO 14443A MIFARE® DESFire EV1	Up to 1" (2.5 cm)

Card Technologies Supported

125kHz Technologies

GE®/CASI® Proximity

HID® Proximity (up to 37-bits)

AWID® Proximity

LenelProx®

13.56MHz Technologies

ISO14443 MIFARE DESFire EV1 with PACSA enabled

ISO14443 Secure MIFARE Classic:
- XCeedID MIFARE app enabled
- OESM (dormant - ready to be enabled by end-user)

ISO14443 PIV enabled 75-bit format (other formats available)

iClass/CSN enabled 64-bit format

ISO15693 CSN enabled 64-bit format

ISO14443 CSN disabled (can be enabled using the configuration card)

aptiQmobile

Notes

Notes

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Part 15.21 Statement

Changes or modifications not expressly approved by the XceedID Corporation to this device could void the user's authority to operate the device.

FCC part 15.105 Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Customer Service

U.S.A.: 877-671-7011
www.allegion.com/us

Revision

Check **www.allegion.com/us** for latest product revisions.

Contact Information

Should a system design engineer or developer need assistance, contact XceedID at:

Allegion

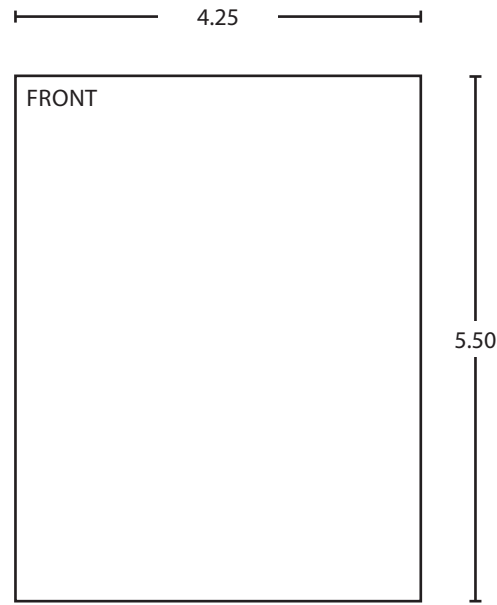500 Golden Ridge Road
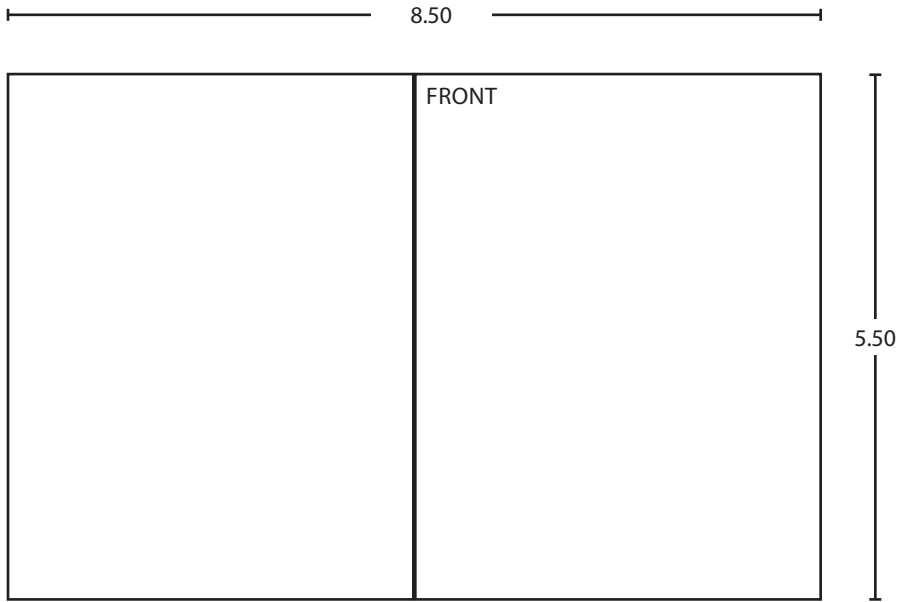Building 1, Suite 160
Golden, CO 80401

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About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a $2 billion company, with products sold in almost 130 countries.

For more, visit **www.allegion.com**.

aptiQ ■ **LCN** ■ **SCHLAGE** ■ **STEELCRAFT** ■ **VON DUPRIN**

ALLEGION™

8.50

FRONT

5.50

BEGINNING SHEET

4.25

FRONT

5.50

FINAL SIZE

Additional Notes:
1. Printed saddle-stitched booklet

Revision History					
A	B	C	D	E	F
063451					

Revision Description:
A > Revised artwork

Material
White Paper

Edited By	Approved By	EC Number	Release Date
D. Toppins	M. Sasso	063451	08-28-15

Notes
1. printed two sides
2. Printed saddle-stitched booklet
2. printed black
3. tolerance ± .13
4. printed in country may vary
5. drawings not to scale

Title
MT20w Enrollment Reader UG

Creation Date 07-20-15	Number xxxxxxxxx	Revision A

Created By D. Toppins	Activity 3899 Hancock Expwy Security, CO 80911	
Software: InDesign CS6		© Allegion 2015