Alarm Lock ArchiTech Series Lockset Specification

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Product Guide Specification

Specifiers: Click on the ¶ icon in the WORD toolbar to reveal detailed instructions

DISCLAIMER: Specification requires the sole professional judgment and expertise of the qualified Specifier and Design Professional to adapt the information to the specific needs for the Building Owner and the Project, to coordinate with their Construction Document Process, and to meet all the applicable building codes, regulations and laws. Alarm Lock (A Napco Security Group Company) expressly disclaims any warranty of merchantability or fitness for particular purpose of the product or project.

SECTION 28 15 00
ACCESS CONTROL HARDWARE DEVICES

PART 1 - GENERAL

1.1   SUMMARY

A.   Section Includes:
1.   Architech Designer Wireless Access door locks that shall communicate wirelessly via Ethernet or 802.11B/G with a database for a comprehensive door access control system, allowing remote door programming and audit trail retrieval and providing all standalone lock functionality plus network-wide global emergency lockdown/unlock commands.
2.   Architech Designer Wireless Access Control door locks with unlimited combinations of 300+ architectural trims, lever or knob designs trims and finishes with keypad and/or prox reader. Lock model styles include cylindrical and mortise.
3.   Gateway modules that are either wireless/hardwired or wired-only versions (standard Ethernet connection model or Power-Over-Ethernet (POEP) option).
4.   Expander modules that shall be wireless to expand the distance between gateway and locks.
5.   DL-Windows Access Control software and accessories associated with the wireless door lock. This DL-Windows Access Control software and all future updates are provided to the owner at no charge. All hardware and firmware is flash upgradeable.

1.2   REFERENCES

A.   National Fire Protection Association (NFPA):
1.   NFPA 70; National Electrical Code - The standard for the safe installation of electrical wiring and equipment in the United States.
2.   NFPA-80: The standard for Fire Doors and Windows.
3.   NFPA-101:Life Safety Code

B.   American National Standards Institute (ANSI):
1.   ANSI A156.1 - American National Standard for Butts and Hinges.

1.3   SUBMITTALS

A.   Product Data
1.   Submit manufacturer current technical literature for each type of product.

B.   Shop Drawings:
1.   Include details, dimensions, and attachments to other work.

C.   Finish Hardware Schedule:
1.   Coordinate finish hardware schedule with project Door Hardware Consultant
2.   Coordinate hardware with doors, frames and related work to ensure proper size, thickness, hand, function and finish of hardware. Organize hardware schedule into "hardware sets" indicating complete designations of every item required for each door or opening; and include the following information:

        a.   Type, style, function, size and finish of each hardware item.
        b.   Name and manufacturer of each item.
        c.   Fastenings and other pertinent information.
        d.   Location of hardware set cross-referenced to indications on drawings both on floor plans and in door and frame schedule.
        e.   Explanation of all abbreviations, symbols, codes, etc.
        f.   Mounting locations for hardware.
        g.   Door and frame sizes and materials.

D.   Keying requirements for wireless architectural locks shall be coordinated with the owner and /or architect by an authorized Alarm Lock representative.

E.   Templates: Successful bidder shall furnish hardware templates to the door and frame manufacturer to insure proper preparation for the installation of hardware. Check approved shop drawings to confirm adequate provisions have been made for the proper installation of items.

F.   Wiring Diagrams: Complete system wiring diagrams for all wireless architectural locks and controls shall be prepared and provided by the hardware manufacturer, and include lock functions, monitoring requirements, color coded conductor locations, and conductor connections.

1.4   QUALITY ASSURANCE

A.   Qualifications
   1. Manufacturer:
     The manufacturer shall have a minimum of ten years of experience in the production of Door Hardware.
   2. Installer:
     a.   The installer shall be authorized by the manufacturer.
   3. All components must be installed by a certified Alarm Lock installer trained in the application of all specified components and applications specified.

1.5   DELIVERY, STORAGE & HANDLING

A.   Delivery and Acceptance Requirements:
   1. Mark or tag each item of hardware, with identification related to final hardware schedule, and include basic installation instructions with each item or package.
   2. Wrap and crate finished components and assemblies to prevent damage to finished items.
   3. Deliver individually packaged hardware items at the proper time and location (shop or project site) for installation.
   4. Deliver pertinent items requiring being built-in to the General Contractor or trades in accordance with construction progress to prevent any delay.
   5. Determine and coordinate the openings for delivery and installation of equipment.

B.   Storage and Protection: Storage and Protection:
   1. Hardware received, but not installed shall be placed in secured storage. Control handling to prevent losses and delays before and after installation.

C.   Key Delivery:
   1. Keys for mechanical key override shall be issued by the owner upon completion of training by a certified Alarm Lock representative.

1.6   WARRANTY

   A.   Manufacturer's Warranty:
      1.   All components of the wireless lock system shall be warranted against defects for two years after installation. Any component found defective will be replaced by the manufacturer.
      2.   Compliance with warranty will require that the Contractor maintain the following services:
         a.   A full-time, Alarm Lock Architech dedicated technician who is factory trained and certified.
         b.   A field representative who will call on the end user on a regular basis to provide service.
         c.   Company warehousing capability within a 250 mile radius of end user with dedicated inventory.

PART 2 - PRODUCTS

2.1   MANUFACTURERS

   A.   List of approved ArchiTech series Lockset manufacturers:
      1.   Alarm Lock
         333 Bayview Ave.
         Amityville, N.Y. 11701
         Phone (631) 842-9400
         Fax (631) 789-3383

2.2   ASSEMBLY

   A.   Access Control Locks to be ArchiTech series as manufactured by Alarm Lock of Amityville, NY.

   B.   Locks shall conform to ANSI/BHMA Grade 1

   C.   Provide configuration of lock as required by hardware group:
      1.   Cylindrical lock type – Model Series N90
             (Proximity and Smart Card Technology)
      2.   Mortise lock type – Model Series N95
             (Proximity and Smart Card Technology)

   D.   Programming:
      1.   All programming, including user credentials, scheduling and audit trail retrieval, shall be performed using Alarm Lock DL-Windows software version 5.5.3x or higher.
      2.   Communication of all programming from computer containing software to locks, shall be through Alarm Lock Version 2 or Version 3 Gateway and Expander models, appropriate for building's network system.
         a.   Gateway:
            1)   Ethernet connected gateway – Model Series AL-IME2 or AL-IM3-80211.
            2)   Power over Ethernet connected gateway, plenum rated – Model Series AL-IME2POEP or AL-IM3-POE.
            3)   Wi-FI connected gateway – Model Series AL-IM2-80211 or AL-IM3-80211.
            4)   USB RF Gateway – Model Series AL-IME-USB

   E.   Lock features:

1. Locks to be battery powered by standard off-the-shelf batteries (AA or C size), providing 3-4 years battery life, under normal operating conditions.
2. Locks shall be stand-alone battery operated units, not requiring power transfer through the frame/door.
3. Locks to support up to 5000 users with 3-6 digit numeric PIN code, or HID format proximity credential, or both for dual credential requirement.
4. Locks shall support multiple card/ID technologies including Proximity and Smart, including IClass.
5. Locks shall support magstripe swipe reader.
6. Locks to support up to 500 event schedules.
7. Locks to support in non-volatile memory 40,000 event audit trail.
8. Locks to be weatherproof (storage temperature range of -31 to +151 degrees Fahrenheit).
9. Locks shall have an operating temperature range of -4 to +140 degrees Fahrenheit).
10. Locks shall continue to operate as last instructed including maintaining schedules and audit trail, independent of building network system failure.
11. DL-Windows software and/or keyfob shall be capable of providing a system-wide global emergency lockdown/unlock within 10 seconds when initiated by authorized user in a networked environment.
12. Locks shall be compatible with unlimited combinations of 300+ architectural trims, lever or knob designs trims and finishes.
13. Locks shall support a concealed proximity reader.
14. Locks shall support a surface-mount keypad.
15. Locks shall support a Mortise-In (recessed) Networx control module and battery pack.
16. Locks shall support Surface-Mount (backbox) Networx control module and battery pack.
17. Locks shall support an integrated Door position switch.
18. Locks shall support a back button.
19. Locks shall support a key override.
20. Locks shall support Auto-Deadbolt upon exit.
21. Locks shall contain a real Time Clock.
22. Locks shall have remote release capability through wireless connection.
23. Locks must support manual card enrollment option for quick installation.
24. Locks must contain a Stainless steel latch.
25. Locks must contain Auto-Reverse lock body tested to 6 million cycles.
26. Locks Body must contain a self-cleaning long life motor.
27. Locks shall support ILock Bluetooth mobile app.

F.   Gateway Features:
  1. Each gateway shall support up to 63 locks.
  2. Each gateway to communicate to software through the building's network system.
     a.   Ethernet connected gateway
        1)   Interface: Ethernet 10Base-T or 100Base-TX
        2)   Protocols: TCP/IP, UDP/IP, DHCP
     b.   Wi-Fi connected gateway
        1)   Wireless standards: IEEE 802.11b; 802.11g
        2)   Frequency range: 2.412 – 2.484 GHz
        3)   Output power: 14 dBm + 1.5 dBm/-1.0 dBm
        4)   Maximum receive level: -10dBm (with PER <8%)
        5)   Data rates with automatic fallback: 54Mbps – 1Mbps
        6)   Range: up to 328 feet indoors
        7)   Modulation techniques: OFDM, DSSS, CCK, DQPSK, DBPSK, 64 QAM, 16 QAM
        8)   Interface: 802.11b, 802.11g, and 10/100 Ethernet
        9)   Protocols: TCP/IP, UDP/IP, DHCP
     c.   Security: IEEE 802.11 – PSK with 128-bit AES Rijndael Encryption

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       3.   Each gateway to communicate to locks through 900 MHz GFSK proprietary 128-bit encryption.
- a. 50 channels
- b. 10mW power output

       4.   Environment:
- a. Indoor installation
- b. Operating temperature: -4 to +140 degrees Fahrenheit

G. Software:
1. Software to be Alarm Lock DL-Windows supporting 2000 locks per system account with a maximum of 50 gateways per system account.
2. Locks shall also operate with the Continental Access CA4K software, Alarm Lock Air Access software and Lenel OnGuard software (refer to the associated specifications).

H. Security Mode:
1. Security is the essence of this section. Unless otherwise required by code, wireless operated hardware shall remain secured in the event of power failure. Normal operation will require battery power to operate the ArchiTech locks. Emergency mechanical key override shall be provided in the event of battery failure (except for keypad only unit). The ArchiTech lock will function mechanically with its corresponding hardware and will in no way affect the egress at any door.

I. Registration of Codes and Credentials/Security Management:
1. All codes and /or credentials for ArchiTech locks shall be recorded by the DL-Windows software-based program specific to the building site.
2. Every code and/or credential issued by the owner shall be entirely unique to that user to whom it is issued. Cards and fobs identified and protected by type and facility code.
3. Wireless networked door access control system will allow for remote door programming and audit trail retrieval and providing all standalone lock functionality plus network-wide global emergency lockdown/unlock commands. Communication is a secure 128bit AES PC encryption and proprietary RF-link lock-to-Gateway encryption.
4. System to provide for audit trail of 40,000 events/lock and up to 500 lock/unlock schedules with time zone support.
5. System to be managed from a single computer utilizing the DL-Windows software 5.5.3x version or higher.
6. Provide construction codes to the contractor during the building's construction period.
7. Construction codes shall self-disable at a specified time and date and shall not require any physical modification of the lock or cylinder.
8. In the event the construction period is longer or shorter than originally planned, locks shall be re-programmable to conform to the schedule change.
9. Wireless locks to be fully keypad programmable.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All components shall be programmed in the full operational mode as instructed by the owner.

3.2 CLOSEOUT ACTIVITIES

Access Control Hardware Devices

A.   Refer to Division 01 "Closeout Procedure's" section or sections for activities related to the close out procedures including operations manuals, maintenance, demonstration, and training requirements.

B.   Training:

1.   A certified Alarm Lock representative (distributor or manufacturer based) shall provide training to the owner for the purpose of software set up and maintenance of the wireless door lock system.

END OF SECTION

Access Control Hardware Devices