

OTS Pulse - The RFID and Bluetooth enabled OTS®Pulse is the ultimate in wireless networked locking solutions. Expand by one or one hundred, no wires means simple, cost-effective and secure locking like never before. Manage, update and report – from anywhere. Designed to provide seamless versatility and flexibility in today's changing work and leisure environments, the OTS®Pulse allows management to control, monitor, and optimize locker use as needed; remotely and wirelessly. Without the need for hard-wiring, locks can be retrofitted to established lockers as easily as they can be added to new ones.

SECTION 105115

WIRELESS NETWORKED LOCKING SYSTEMS - OTS PULSE

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Electronic RFID and bluetooth-enabled locks for lockers. (OTS Pulse)
- B. Related Work: The following items are not included in this Section and are specified under the designated Sections:
 - 1. Section 105100 - Lockers for coordination with shop-installed locks.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation recommendations, and user manuals.
- B. Shop Drawings: Submit project-specific details of construction. Use the same room identification numbers as indicated on the Drawings.
 - 1. For shop-installed locks, coordinate with locker manufacturer, in sufficient time as to not delay job progress.
 - 2. For software system, includes types of keys, portable programmer, management software.
- C. Demonstration and Training: Submit proposed type and duration of on-site training for owner's personnel.
- D. Warranties: Provide manufacturer's standard limited warranty against defects in manufacturing.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in the manufacturing of the products specified in this section, with at least three years of documented experience and achieving and maintaining: ISO 9001 Quality standards and ISO 14001 environmental standards.

- B. Source Limitations: Obtain each type of lock from a single manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Handling: Comply with manufacturer's recommendations for delivery, storage and handling of locking systems.

PART 2 - PRODUCTS

2.1 ELECTRONIC, RFID AND BLUETOOTH ENABLED LOCKS

- A. Basis of Design: OTS Pulse by ojmar, 17155 Von Karman Avenue, Suite 111, Irvine, CA 92614. Phone 949-419-6776. Contact sales@ojmar.us. Website www.ojmar.us.

1. Type: Electronic, RFID and blue-tooth enabled push button lock.
2. Technology:
 - a. Protocol: RFID and Bluetooth.
 - b. RFID Standards: MIFARE (DESFire EV1 & EV2, Ultralight, Ultralight C, Classic1K/4K 4B and 7B UID – ISO/IEC 14443), ISO 15693, HID.
 - c. Reading: UID / Sector.
 - d. Wearables: RFID cards, wristbands, FOBs, Technogym key and Stickers.
 - e. Bluetooth OS: Android and iOS.
3. Usage Modes:
 - a. Public Mode: Up to 3 locks simultaneously with just one wearable.
 - b. Private Mode: Up to 6 locks simultaneously with just one wearable.
 - c. Multifunction Mode: Up to 3 free and 3 dedicated locks simultaneously with just one wearable
 - d. Rental Mode: Configurable in increments of 1 minute. Default period: 1 hour.
4. User Interfaces:
 - a. Notifications: 1 LED (Red, amber and green).
 - b. Lock Closed Notifications: Nozzle in closed position Red LED blinking every 2 seconds (configurable in software).
 - c. Alarms: Low Battery Warning, High Occupancy Alert.
5. Communication Interfaces:
 - a. Communication Standard: Wireless 2.4GHz proprietary stack.
 - b. Encryption Mode: AES 256.
 - c. Reading Field Range (wireless): Up to 50m / 164ft (depending on the layout).
6. Power Supply:
 - a. Batteries: 4 Alkaline Batteries VARTA Type AA.
 - b. Battery Life: Up to 10 years at room temperature (depending on usage and configuration).
7. Environmental Conditions:

- a. Temperature: From -10 degrees C to 42 degrees C / 14 degrees F to 108 degrees F (indoors).
 - b. Humidity: Less than 97 percent (condensation-free).
 - c. Protection: Impact - IK09; water / particulate Ingress - IP55.
8. Gateway Info:
- a. Protocol: 2.4 GHz proprietary (IEEE 802.15.4).
 - b. Number of Maximum Connections Up to 1000 (depending on installation layout)
 - c. Reading Distance Up to 50m (depending on installation layout).
 - d. Communication Standard: LAN Ethernet RJ-45, USB.
 - e. Ethernet: DHCP.
 - f. Power Supply: 8-30VDC Output, 12W min. Supports IEEE 802.11 PoE.
9. Nozzle Color: Black.
10. Nozzle Color: Black and green.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install locks in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
1. Verify position of lock to locker body to ensure latching mechanism works properly.
 2. Test each unit for proper operation and adjust until satisfactory results are achieved.
- B. Install and configure the OTS PULSE SmartApp on Owner's devices, including cards and bracelets as applicable.

3.4 DEMONSTRATION AND TRAINING

- A. Review maintenance and operations manuals with Owner's personnel. Demonstrate operation and options.

3.5 CLEANING AND PROTECTION

- A. Clean adjacent surfaces after installation. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION