

World Plaza
Relocalización de Compactadora de Basura

DIVISION- 32 EXTERIOR IMPROVEMENTS

SECTION- 32 31 00 GATE OPERATORS

PART 1- GENERAL

1.1 DESCRIPTION

- A. Electric gate operators.
- B. Sensors and controls.

1.2 RELATED SECTIONS

- A. Section 03 30 00 – Cast-in-Place Concrete: Concrete mounting pads.
- B. Section 05 50 00 – Metal Fabrications
- C. Division 26 – Requirements for electrical connections.

1.3 REFERENCES

- A. Underwriters Laboratories (UL): UL 325 – Standard for Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems.
- B. Underwriters Laboratories (UL): UL 991 – Standard for Tests for Safety Related Controls Employing Solid-State Devices.
- C. American Society Testing Materials (ASTM): ASTM F2200 – Standard Specification for Automated Vehicular Gate Construction.
- D. National Electrical Manufacturers Association (NEMA): NEMA ICS 6 – Industrial Control Systems: Enclosures.

1.4 SUBMITTALS

- A. Product Data: Manufacturers data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements.
 - 3. Installation methods.
- B. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, edge connections, and accessories.
 - 1. Operation, installation, and maintenance manuals including wire diagrams.
 - 2. Risers, layouts, and special wiring diagrams showing any changes to standard drawings.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle materials and products in strict compliance with manufacturer's instructions and industry standards.

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- B. Store products indoors in manufacturer's original containers and packaging with labels clearly identifying product name and manufacturer. Protect from damage.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Installation performed by factory authorized dealer contractor specifically trained in gate operator systems of the type found within this section.
 - 1. Provide documentation of maintenance and repair service availability for emergency conditions.
 - 2. Provide quarterly maintenance for one year following Substantial Completion of the Project.

1.7 WARRANTY

- A. Manufacturers standard five (5) year warranty.

PART 2 PRODUCTS

2.1 SLIDING GATE OPERATORS

- A. Microprocessor based solid-state control board interacting with card readers, RF transmitters, access control systems, ticket machines, other activating devices as required, external devices (photo-eyes, contact edges) for entrapment protection and vehicle (loop) sensing systems. Control board shall include built-in close timer (1-25 seconds), built-in ports for two (2) plug-in loop detectors, partial open input, programming switches to set various operating modes, inherent current sensing reverse system.
 - 1. Compliance: Compliant to UL 325 and UL 991, and listed by Intertek Testing Laboratories NA, Inc. (ETL), a Nationally Recognized Testing Laboratory.
 - a. This model is intended for use in Class III vehicular slide gate applications.
 - 2. Warranty: Five (5) year manufacturer's standard warranty.
 - 3. Maximum Gate Length:
 - a. 40-feet
 - 4. Maximum Gate Weight:
 - a. 1,800 Lbs
 - 5. Operator speed: approximately 10-inches per second.
 - 6. Enclosure: polypropylene.
 - 7. Configuration: Left- or right-hand mount; front, center or rear mounting configurations.
 - 8. Mounting: Pad or post mount.
 - 9. Electrical Power Requirements: 115/230 VAC or 24 VDC.
 - 10. Motor: 24 VDC Continuous Duty Motor.
 - 11. Manual Operation: Upon loss of primary (AC) power, a T-handle release is engaged allowing the gate to be manually pushed open.
 - 12. Primary Reduction: 30:1 gear reduction, single cog belt drive train.

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13. Pulling Medium: roller chain
14. Mechanically set Limit Switches.
15. Operating Switches: Built-in AC and DC power (on-off), reset and operating switches.
16. Convenience Outlets: Two (2) 115 VAC for accessory transformers (115/230 VAC models only).
17. Entrapment Protection
 - a. Photo-electric eye (non-contact sensor).
 - b. Sensing edge (contact sensor).
18. Accessories: Provide the optional accessories listed below.
 - a. Traffic signal (red / green).
 - b. Base Plate – for post mount applications.
 - c. Chain tray kit – to support roller chain on long gates.
 - d. Plug-in loop detectors.
 - e. Electric reversing edge – reverses direction of gate on contact with an obstruction.
 - f. Photo-electric beams – reverses direction of gate if the light beam is obstructed.
 - g. Backup power inverter – allows system to remain operation upon loss of primary (AC) power.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Wiring shall be uniform and in accordance with national electric codes and manufacturer's instructions.
- B. All splices shall be in easily accessible junction boxes or on terminal boards.
- C. All cable runs in all junction boxes shall be tagged and identified.
- D. Coordinate all work with other effected trades and contractors.

3.2 SYSTEM INITIALIZING AND PROGRAMMING

- A. System shall be turned on and adjustment made to meet requirements of specifications and on-site conditions.
- B. System shall function as specified.

3.3 SYSTEM TEST PROCEDURES

- A. System shall be completely tested to assure that all components and accessories are hooked-up and in working order.
- B. System shall be pre-tested by contractor and certified to function in accordance with plans and specifications.
- C. System shall be tested in presence of owner's representative.

3.4 OWNER INSTRUCTIONS

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- A. Installation contractor shall conduct up to (1) hour of instruction in use and operation of the system to designated owner representatives, within (30) days of acceptance.
- B. Installation contractor shall conduct up to (1) hour of technical training, in troubleshooting and service of the system, to designated owner representatives within (90) days of system acceptance.

3.5 MANUALS AND DRAWINGS

- A. Contractor shall provide owner with (2) copies of standard factory prepared operation, installation and maintenance manuals. Manuals shall include typical wiring diagrams.
- B. Contractor shall provide owner with (2) copies of any risers, layouts, and special wiring diagrams showing any changes to standard drawings, if required on project.

3.6 MAINTENANCE

- A. The manufacturer recommends periodic maintenance at one (1), three (3) and 12-month intervals as described in the installation and maintenance manual.
- B. External reversing devices should be checked at least once a month.

END OF SECTION