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Guide Specification

Specifier Notes: This guide specification is written in Construction Specifications Institute (CSI) 3-Part Format in accordance with *The CSI Construction Specifications Practice Guide, MasterFormat, SectionFormat, and PageFormat*.

This Section must be carefully reviewed and edited by the Architect to meet the requirements of the Project and local building code. Coordinate this Section with Division 01, other specification sections, and the Drawings. Delete all Specifier Notes after editing this Section.

Section numbers and titles are based on *MasterFormat 2016 Edition*.

SECTION 32 84 13

DRIP IRRIGATION CONTROL ZONE KITS

Specifier Notes: This Section covers NDS, Inc. drip irrigation control zone kits. Consult NDS, Inc. for assistance in editing this Section as required for the Project.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Drip irrigation control zone kits.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required for the Project. Limit the list to sections with specific information that the reader might expect to find in this Section, but is specified elsewhere.

- A. Section [32 80 00] [] – [Irrigation] []: Irrigation system.

1.3 SUBMITTALS

Specifier Notes: Edit the Submittals article as required for the Project. Delete submittals not required.

- A. Comply with Division 01.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, electrical, options, and accessories.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Manufacturer's Project References: Submit manufacturer's list of 10 successfully completed drip irrigation projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of drip irrigation equipment furnished.
- F. Installer's Project References: Submit installer's list of 5 successfully completed drip irrigation projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of drip irrigation equipment installed.
- G. Operation and Maintenance Data:
 - 1. Submit manufacturer's operation and maintenance manual, including the following:
 - a. Operation, maintenance, adjustment, and cleaning instructions.
 - b. Parts list.
 - c. Electrical wiring instructions.
 - 2. Provide detailed information required for Owner to properly operate and maintain equipment.
- H. Warranty Documentation: Submit manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged in the manufacturing of drip irrigation equipment for a minimum of 10 years.
- B. Installer's Qualifications:
 - 1. Installer regularly engaged in installation of drip irrigation equipment for a minimum of 5 years.
 - 2. Use persons trained for installation of drip irrigation equipment.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

- B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer's instructions.
 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 3. Store materials in clean, dry area indoors.
 4. Keep materials from freezing.
 5. Protect materials during storage, handling, and installation to prevent damage.

1.6 WARRANTY

- A. Warranty Period: 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: NDS, Inc., 851 North Harvard Avenue, Lindsay, California 93247. Toll Free 800-726-1994. Phone 559-562-9888. Fax 559-562-4488. www.ndspro.com. info@ndspro.com.

Specifier Notes: Specify if substitutions will be permitted.
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- B. Substitutions: [Not permitted] [Comply with Division 01].
- C. Single Source: Provide materials from single manufacturer.

2.2 MATERIALS

Specifier Notes: Specify NDS, Inc. drip irrigation control zone kits as required for the Project. Delete control zone kits not required.
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- A. Drip Irrigation Control Zone Kits: NDS "CZK100-30".
1. Description: 30 psi kit with "PRYF" pressure-regulating filter and universal fitting on discharge of assembly.
 2. Pre-assembled 1-inch reversed flow valve, regulator, and filter.
 3. Flow Range: 0.2 to 5 gpm.
 4. Inlet Pressure: 20 to 150 psi (1.4 to 10.3 bar).
 5. Filtration: 200 mesh stainless steel filter (75 microns).
 6. Regulated Discharge Pressure: 30 psi.
 7. Universal Discharge Fitting:
 - a. "Smart-Loc" fitting.
 - b. Accepts: 16 to 18 mm drip tubing.
 8. Electrical:
 - a. Inrush: 9.48 VA, 400 mA.
 - b. Holding: 5.11 VA, 220 mA.
 9. Valve and Pressure Regulating Filter (PRYF) Material: Glass-filled nylon.
 10. Switch: On/off manual bleed switch.

11. Cover: 4-bolt stainless steel cover with brass inserts.
12. Diaphragm: "SB-10 DIA" with self-cleaning ports.
13. Solenoid:
 - a. "SB-10 SOL" with stainless steel actuator.
 - b. Compatible with 2-wire decoder systems.
14. Filter Cap: "EZ-Flush" cap for access to filter.

B. Drip Irrigation Control Zone Kits: NDS "CZK100-30F".

1. Description: 30 psi kit with "PRYF" pressure-regulating filter and flow control valve.
2. Pre-assembled 1-inch reversed flow valve, regulator, and filter.
3. Flow Range: 0.2 to 5 gpm.
4. Inlet Pressure: 20 to 150 psi (1.4 to 10.3 bar).
5. Filtration: 200 mesh stainless steel filter (75 microns).
6. Regulated Discharge Pressure: 30 psi.
7. Electrical:
 - a. Inrush: 9.48 VA, 400 mA.
 - b. Holding: 5.11 VA, 220 mA.
8. Valve and Pressure Regulating Filter (PRYF) Material: Glass-filled nylon.
9. Switch: On/off manual bleed switch.
10. Cover: 4-bolt stainless steel cover with brass inserts.
11. Diaphragm: "SB-10 DIA" with self-cleaning ports.
12. Solenoid:
 - a. "SB-10 SOL" with stainless steel actuator.
 - b. Compatible with 2-wire decoder systems.
13. Filter Cap: "EZ-Flush" cap for access to filter.
14. Flow Control Valve Handle: "SB-10 NPH".

C. Drip Irrigation Control Zone Kits: NDS "CZK100-40".

1. Description: 40 psi kit with "PRYF" pressure-regulating filter and universal fitting on discharge of assembly.
2. Pre-assembled 1-inch reversed flow valve, regulator, and filter.
3. Flow Range: 0.2 to 15 gpm.
4. Inlet Pressure: 20 to 150 psi (1.4 to 10.3 bar).
5. Filtration: 200 mesh stainless steel filter (75 microns).
6. Regulated Discharge Pressure: 40 psi.
7. Universal Discharge Fitting:
 - a. "Smart-Loc" fitting.
 - b. Accepts: 16 to 18 mm drip tubing.
8. Electrical:
 - a. Inrush: 9.48 VA, 400 mA.
 - b. Holding: 5.11 VA, 220 mA.
9. Valve and Pressure Regulating Filter (PRYF) Material: Glass-filled nylon.
10. Switch: On/off manual bleed switch.
11. Cover: 4-bolt stainless steel cover with brass inserts.
12. Diaphragm: "SB-10 DIA" with self-cleaning ports.
13. Solenoid:
 - a. "SB-10 SOL" with stainless steel actuator.
 - b. Compatible with 2-wire decoder systems.
14. Filter Cap: "EZ-Flush" cap for access to filter.

- D. Drip Irrigation Control Zone Kits: NDS "CZK100-40F".
1. Description: 40 psi kit with "PRYF" pressure-regulating filter and flow control valve.
 2. Pre-assembled 1-inch reversed flow valve, regulator, and filter.
 3. Flow Range: 0.2 to 15 gpm.
 4. Inlet Pressure: 20 to 150 psi (1.4 to 10.3 bar).
 5. Filtration: 200 mesh stainless steel filter (75 microns).
 6. Regulated Discharge Pressure: 40 psi.
 7. Electrical:
 - a. Inrush: 9.48 VA, 400 mA.
 - b. Holding: 5.11 VA, 220 mA.
 8. Valve and Pressure Regulating Filter (PRYF) Material: Glass-filled nylon.
 9. Switch: On/off manual bleed switch.
 10. Cover: 4-bolt stainless steel cover with brass inserts.
 11. Diaphragm: "SB-10 DIA" with self-cleaning ports.
 12. Solenoid:
 - a. "SB-10 SOL" with stainless steel actuator.
 - b. Compatible with 2-wire decoder systems.
 13. Filter Cap: "EZ-Flush" cap for access to filter.
 14. Flow Control Valve Handle: "SB-10 NPH".

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine locations to receive drip irrigation control zone kits.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install drip irrigation control zone kits in valve boxes in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Connect control zone kits to irrigation system in accordance with manufacturer's instructions.
- C. Install drip irrigation control zone kits with watertight connections.

Specifier Notes: Edit the following sentence to include the section number for the irrigation system.

- D. Irrigation System: Install as specified in Section [32 80 00] [_____].

3.3 ADJUSTING

- A. Adjust drip irrigation control zone kits for proper operation in accordance with manufacturer's instructions.

3.4 PROTECTION

- A. Protect installed drip irrigation control zone kits from damage during construction.

END OF SECTION