

SECTION 26 29 33

CONTROL STATIONS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Scope:
1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install control stations, including pushbuttons, selector switches, and other control stations elements.
- B. Coordination:
1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before control stations Work.
 2. Notify other contractors in advance of installing control stations to provide other contractors with sufficient time for installing items included in their contracts that will be installed with or before control stations Work.
- C. Related Sections:
1. Section 26 05 05, General Provisions for Electrical Systems.
 2. Section 26 05 29, Hangers and Supports for Electrical Systems.
 3. Section 26 05 53, Identification for Electrical Systems.

1.2 REFERENCES

- A. Standards referenced in this Section are:
1. NEMA ICS 2, Controllers, Contactors and Overload Relays Rated 600 Volts.
 2. NEMA ICS 5, Industrial Control and Systems: Control-Circuits and Pilot Devices.
 3. NEMA ICS 6, Industrial Control and Systems Enclosures.
 4. NEMA 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
 5. UL 508, Industrial Control Equipment.

1.3 QUALITY ASSURANCE

- A. Component Supply and Compatibility:
1. Obtain all control stations furnished under this Section from a single control station manufacturer.
 2. Components shall be suitable for the specified application and shall be integrated into the overall assembly by control station manufacturer.

1.4 SUBMITTALS

- A. Action Submittals: Submit the following:
1. Shop Drawings:

- a. Listing of control stations to be furnished with their location, rating, and NEMA enclosure type for each.
2. Product Data:
 - a. Manufacturer's technical information and specifications for control stations proposed for use.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Control Stations:
 1. Manufacturers: Provide products of one of the following:
 - a. Cutler-Hammer.
 - b. General Electric Company.
 - c. Allen Bradley Company.
 - d. Square-D Company.
 2. Type: 30.5 mm industrial, heavy duty, oil-tight construction with clearly-marked legend plates.
 3. Emergency Stop or Lockout Stop: Lockout stop pushbuttons shall be two-position, push-pull type with maintained contact and mushroom head. Provide control stations with padlocking attachment and legend plate reading "PUSH-TO-STOP, PULL-TO-START".
 4. Pushbuttons: Momentary or maintained types, NEMA A600 contact rating.
 5. Selector Switches: Rotary type with round or oval handles and positioning device to securely hold switch in selected position for maintained type and for spring return from left, right, or both left and right to maintained position.
 6. Control stations shall comply with NEMA ICS 2, NEMA ICS 5, and UL 508, and shall bear the UL label.
 7. Indicating Lights shall be 120 VAC LED module, push-to-test. Lens color shall be in accordance with Section 40 78 00 Panel Mounted Instruments and Devices.
 8. Enclosures: As required for area classifications specified in Section 26 05 05, General Provisions for Electrical Systems, and complying with NEMA 250 and NEMA ICS 6.
 9. Identification: Identify enclosures in accordance with Section 26 05 53, Identification for Electrical Systems. Devices shall include front-mounted nameplates identifying function and equipment controlled, if not readily apparent.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine conditions under which the Work will be installed and notify ENGINEER in writing of conditions detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install equipment as shown and indicated, and provide sufficient access and working space for ready and safe operation and maintenance.
- B. Securely fasten equipment to walls or other surfaces on which equipment is mounted. Provide independent supports where no wall or other surface exists, in accordance with Section 26 05 29, Hangers and Supports for Electrical Systems.

++ END OF SECTION ++