

SECTION 25 31 00 {13448}

INTEGRATED AUTOMATION INSTRUMENTATION AND TERMINAL DEVICES FOR FACILITY
EQUIPMENT

{ELECTRICAL CONTROLS AND RELAYS}

This section includes electric control switches, pushbuttons, relays, time delay relays, timers, counters, control power transformers, and control panels.

Manufacturers listed in this section were identified as representative and not as an endorsement for meeting this specification. For additional product information, visit 4Specs at www.4specs.com, ARCAT at www.arcata.com, First Source at www.reedfirstsource.com, SpecSource at www.specsource.com, and Sweets Network at products.construction.com.

This section includes performance, proprietary, and descriptive type specifications. Edit to avoid conflicting requirements.

Contact the CSRF Support Center at supportcenter@csrf.org to submit comments or suggestions for improvements to this specification. Visit the SPECTEXT web site at www.spectext.com for current product announcements.

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes pushbutton and selector switches, control stations, relays, time delay relays, control power transformers, and control panels.
- B. Related Sections:
 - 1. Section 25 36 13 - Integrated Automation Power Meters.
 - 2. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
 - 3. Section 26 05 29 - Hangers and Supports for Electrical Systems.
 - 4. Section 26 05 53 - Identification for Electrical Systems.
 - 5. Section 40 94 43 - Programmable Logic Process Controllers.
- C. Related Sections:
 - 1. Section 13429 - Electrical Sensing and Measurement.
 - 2. Section 13451 - Programmable Controllers.
 - 3. Section 16060 - Grounding and Bonding for Electrical Systems.
 - 4. Section 16070 - Hangers and Supports for Electrical Systems.
 - 5. Section 16075 - Identification for Electrical Systems.

1.2 REFERENCES

List reference standards included within text of this section. Edit the following for Project conditions.

- A. National Electrical Manufacturers Association:
 - 1. NEMA ICS 1 - Industrial Control and Systems: General Requirements.
 - 2. NEMA ICS 4 - Industrial Control and Systems: Terminal Blocks.
 - 3. NEMA ICS 5 - Industrial Control and Systems: Control Circuit and Pilot Devices.
 - 4. NEMA ICS 6 - Industrial Control and Systems: Enclosures.
 - 5. NEMA ST 1 - Specialty Transformers (Except General Purpose Type).

1.3 SUBMITTALS

Only request submittals needed to verify compliance with Project requirements.

- A. Section 01 33 00 - Submittal Procedures {01330 - Submittal Procedures}: Submittal procedures.
- B. Shop Drawings: Comply with NEMA ICS 1 and indicate control panel layouts, wiring connections and diagrams, dimensions, and support points.
- C. Product Data: Submit catalog data for each component showing electrical characteristics and connection requirements.

1.4 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years [documented] experience.

1.5 COORDINATION

- A. Section 01 30 00 - Administrative Requirements {01300 - Administrative Requirements}: Coordination and project conditions.
- B. Coordinate Work with installation of [process,] [mechanical,] [and] [building] systems being controlled.

PART 2 PRODUCTS

2.1 CONTROL SWITCHES AND STATIONS

In this article, list manufacturers acceptable for this Project.

- A. Manufacturers:
 - 1. [_____] Model [_____].
 - 2. [_____] Model [_____].