

PART 1 - GENERAL

- 1.1 Shop Drawings .1 Submit shop drawings in accordance with Section 01330.
.2 Include schematic, wiring, interconnection diagrams.

PART 2 - PRODUCTS

- 2.1 AC Control Relays .1 Convertible contact type: contacts field convertible from NO to NC, electrically held with pneumatic timer and 3 timed poles, 3 instantaneous poles. Coil rating: 120V.
- 2.2 Relay Accessories .1 Standard contact cartridges: normally-open - convertible to normally-closed in field.
.2 Overlap contact cartridges: supplied in pairs having NO contact that closes before NC contact opens.
.3 Mounting strips: indexed strips easily cut to required length and bolted, rivetted, or spot-welded in place. Relays are installed in rows on strip with captive mounting screws. Rows of relays on mounting strip form their own wiring trough.
- 2.3 Operator Control Stations .1 Enclosure: CSA Type 1 surface mounted in unfinished spaces, fan rooms, etc. flush mounting in finished spaces including shop areas.
- 2.4 Pushbuttons .1 Heavy duty. Operator flush mushroom type, as indicated. Black, Red with 1-NO and 1-NC contacts, labels as indicated. Stop pushbuttons coloured red, provision for padlocking in depressed position labelled "emergency stop".
- 2.5 Selector Switches .1 Maintained 2 position labelled as indicated heavy duty operators standard knob cylinder lock where indicated, contact arrangement as indicated.
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| <u>2.6 Indicating lights</u> | .1 | Standard type, lens colour: red, green as indicated, supply voltage: 120V, lamp voltage. |
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| <u>2.7 Control and Relay Panels</u> | .1 | CSA Type 1 sheet steel enclosure with hinged padlockable access door, accommodating relays timers, labels, as indicated, factory installed and wired to identified terminals. |
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| <u>2.8 Control Circuit Transformers</u> | .1 | Single phase, dry type. |
| | .2 | Primary: 600V or 208V, 60 Hz ac. as required. |
| | .3 | Secondary: 120 V, ac. |
| | .4 | Rating: As required. |
| | .5 | Secondary fuse: Size as required. |
| | .6 | Close voltage regulations as required by magnet coils and solenoid valves. |
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| <u>2.9 Manufacturers</u> | .1 | Acceptable manufacturers: Allen Bradley, Siemens, Cutler-Hammer, Schneider, or approved equal. |

PART 3 - EXECUTION

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| <u>3.1 Installation</u> | .1 | Install pushbutton stations, control devices as indicated and interconnect as indicated. |
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| <u>3.2 Tests</u> | .1 | Perform tests in accordance with Section 16010. |
| | .2 | Depending upon magnitude and complexity, divide control system into convenient sections, energize one section at a time and check out operation of section. |
| | .3 | Upon completion of sectional test, undertake group testing. |
| | .4 | Check out complete system for operational sequencing. |