



ELECTRICAL CONTROLS

Condensed Course Outline

DIAGRAMS & CONTROL LOGIC

- Electrical control panels
- Power distribution
- Breakers & fuses
- Power supplies & transformers
- Relays & contactors
- Motor drives
- Terminal blocks
- Control circuit wiring
- Panel labeling
- Ladder logic
- Control circuits

CONTROL DEVICES

- Pushbuttons & operators
- Selector switches
- Limit switches
- Pressure switches
- Temperature switches
- Flow & level switches
- Specialty switches

RELAYS & SAFETY

- Electromechanical relays
- Solid-state relays
- Relay ratings
- Safety relays
- Machine interlocks
- Guarding circuits

DRIVES (VFDs)

- Wiring connections
- Sinking & sourcing
- Parameter programming
- Digital I/O
- Drive safety
- Troubleshooting

SENSORS

- Photoelectric sensors
- Proximity sensors
- Scanning modes
- NPN / PNP circuits
- Sensor selection

TIMERS & CONTROL CIRCUITS

- On-delay & off-delay
- One-shot timers
- Start/stop circuits
- Jog circuits
- Forward & reverse
- Pilot lights

TROUBLESHOOTING

- Diagnosing faults
- Testing relays & contactors
- Motor starters
- Solenoids
- Sensors & switches
- Solid-state devices