

I. Reading Electrical Diagrams

- Electrical Diagrams
- Schematic Symbols
- Practice Exercise I & II
- Relays
- Special Relays
- Timers
- Counters
- Practice Exercise III

II. Static and Manual Control Switches

- Basic Ladder Diagram
- Static Control Switches

III. Sensing and Timing Control Switches

- Common Pilot Devices
- Limit Switches
- Pressure Switches
- Flow Switches
- Float Switches
- Temperature Switches
- Foot Switches
- Proximity Switches
- Photoelectric Switches
- Fiber Optic Photoelectric Switches
- Plugging Speed Switches
- Reed Switches
- Timers

IV. Electromagnetic Control Switches

- Electromagnetic Principles, Solenoids, and Relays
- Basic Solenoid Components and Their Functions
- Basic Relay Components and Component Functions
- Types and Application of Solenoids and Relays
- Control Relays
- Latch/Unlatch Relays
- Magnetic Contactors
- Motor Starters
- Solenoids
- Fuses and Circuit Breakers
- Overloads

V. Understanding Electrical Control Circuits

- Wiring and Schematic Diagram Symbols
- Electrical Diagrams
- Ladder Diagrams
- Basic Rules of Electrical Ladder Diagrams