

PLC CONTROL LAB (I) - BASIC

Model: PLC-32LS

I. FEATURES

1. THIS DEVICE INCLUDES BASIC EXPERIMENT UNITS AND CAN BE EXPANDED TO THE ADVANCED CONTROL SYSTEM. COMPACT DESIGN MAKES IT EASY TO BE HANDLED IN A LAB, PARTICULARLY, FOR SCHOOLS WITH LIMITED LAB SPACE.
2. CIRCUIT DIAGRAMS AND/OR CHARTS ARE SILKSCREENPRINTED ON THE EXPERIMENT DEMO CARD. EXPERIMENT INSTRUCTIONS ARE EASY TO FOLLOW.
3. ALL THE TEST POINTS AND CONNECTION TERMINALS ARE BROUGHT OUT ON THE FRONT FOR EASY ACCESS AND CONNECTION.

II. BASIC KNOWLEDGE AND EXPERIMENTS

A. LEARNING SEQUENTIAL FUNCTION CHART (SFC)

1. SFC AND STL (STEP LADDER) INTRODUCTION
2. BASIC SEQUENCE INSTRUCTION
3. READING SFC CHARTS
4. SFC CHART CONSTRUCTION PRINCIPLE
5. PLC PROGRAMMING
6. OPERATION MODES

B. PLC RELAYS AND TIMERS

1. INTRODUCTION TO PLC
2. PLC INSTRUCTION SETS
3. PROGRAM EXAMPLES

C. PLC APPLIED INSTRUCTIONS

1. DIGITAL DATA CONVERSION
2. MOVE AND COMPARE
3. ARITHMETIC AND LOGICAL OPERATIONS
4. TIMERS
5. COUNTER
6. HIGH SPEED PROCESSING
7. DATA OPERATION
8. PROGRAM EXAMPLES

III. HARDWARE SPECIFICATION

A. CONTROL UNIT

1. MITSUBISHI PLC FX2-32MT, 16 INPUTS AND 16 OUTPUTS.
2. OUTPUT EXTENSION UNIT FX-8FYR, 8 OUTPUTS.

B. CONTROL PANEL

1. 7-SEGMENT DISPLAY, 3-DIGIT AND 2-DIGIT.
2. THUMB WHEEL SWITCH, 3-DIGIT AND 2-DIGIT.
3. TOGGLE SWITCH: B-2 (0.4VA), B-18 (0.4VA), AND B-19 (0.4VA), TWO PIECES EACH.
4. OUTPUT LEDS, 16 PIECES.
5. SEQUENCE CONTROL DEMO CHARTS, 16 PIECE. SILK-SCREEN PRINTED DIAGRAMS.

C. MOTOR CONTROL UNIT

1. DC MOTORS AND SPEED REDUCERS, 2 PIECES EACH.
 - a. SPEED REDUCTION RATIO: 1000:1.
 - b. DC 24V.
2. LIMIT SWITCH, 6 PIECES.
3. TOGGLE SWITCHES, 3 PIECES.

D. INPUT UNIT

1. PLC PROGRAMMER, HAND-HELD, MITSUBISHI FX-20P.

E. PLATFORM

1. BASE PLATFORM
 - a. MATERIAL: STEEL PLATE.
 - b. SIZE: 500mm(W)x400mm(D)x23mm(H),
2. CONTROL UNIT PLATFORM
 - a. MATERIAL: STEEL PLATE.
 - b. SIZE: 206mm(W)x135mm(D)x63mm(H),
3. CONTROL PANEL PLATFORM
 - a. MATERIAL: STEEL PLATE.
 - b. SIZE: 290mm(W)x195mm(D)x115mm(H),
4. MOTOR UNIT PLATFORM
 - a. MATERIAL: STEEL PLATE.
 - b. SIZE: 150mm(W)x155mm(D)x2mm(H),
5. INPUT UNIT PLATFORM
 - a. MATERIAL: STEEL PLATE.
 - b. SIZE: 90mm(W)x200mm(D)x100mm(H),

F. EXPERIMENT MANUAL

ENGLISH, COPYRIGHTED IN USA.

G. POWER

AC 110V/220V +/- 10%, 60/50Hz.

Specification is subject to change without prior notice.

