ENGINEERING SPECIFICATION

SYMCOM MODEL ALT-100-1-SW / ALT-200-1-SW

SINGLE INPUT, ALTERNATING RELAY

PART 1 GENERAL

1.1 REFERENCES

A. UL 508 Industrial Control Equipment – Underwriters Laboratories
B. IEC 60947 Low Voltage Switchgear and Controlgear – International Electrotechnical Commission
C. ANSI/IEEE C62.41 – American National Standards Institute/Institute of Electrical & Electronics Engineers
D. CSA C22.2 No. 14 Industrial Control Equipment – Canadian Standards Association

1.1 WARRANTY

A. Manufacturer Warranty: The manufacturer shall guarantee the product to be free from material and workmanship defects for a period of five years from the date of manufacture when installed and operated according to the manufacturer's requirements.

PART 2 PRODUCTS

2.1 MANUFACTURERS

For Model ALT-100-1-SW
The equipment specified shall be the Model ALT-100-1-SW, manufactured by SymCom, Inc.

For Model ALT-200-1-SW
The equipment specified shall be the Model ALT-200-1-SW, manufactured by SymCom, Inc.

2.2 DESCRIPTION

A. Regulatory Requirements:
   1. The equipment shall be UL Listed as type NKCR—Industrial Control Equipment-Motor Controllers-Auxiliary Devices.
   2. The equipment shall be ULC Listed as type NKCR7—Industrial Control Equipment-Motor Controllers-Auxiliary Devices Certified for Canada.
   3. The equipment shall be CE marked for use in the European Union and evaluated against IEC 60947 Low Voltage Switchgear and Controlgear.

2.3 PERFORMANCE/DESIGN CRITERIA: SINGLE INPUT, ALTERNATING RELAY

A. Capabilities and Features
   1. The equipment shall include:
      For Model ALT-100-1-SW
      a. A voltage range of 95-120VAC
      For Model ALT-200-1-SW
      a. A voltage range of 190-240VAC
   2. The equipment shall have an input debounce time delay of 1 second.
   3. The equipment shall include one control switch input.
   4. The equipment shall provide two Form C relay outputs that simultaneously alternate between two loads each time the control switch opens.
   5. The equipment shall include an adjustment knob that allows three modes of operation. Load 1 forced shall allow only Load 1 to be activated. The relays will be forced to their energized state. Load 2 forced shall allow only Load 2 to be activated. The relays will be forced to their de-energized state. AUTO mode shall allow the relays to alternate between Load 1 and Load 2 each time the control switch closes.
   6. The equipment shall include two relay outputs pilot duty rated 480VA at 240VAC.
   7. The equipment shall include two relay outputs general purpose rated 10A at 240VAC.
   8. The equipment shall have two indicator lights. The two lights shall indicate whether the alternating relays are energizing Load 1 or Load 2.

B. Electromagnetic Compatibility
   1. The equipment shall be immune to electrostatic discharge per IEC 61000-4-2, Level 3, 6 kV contact discharge and 8 kV air discharge.
   2. The equipment shall be immune to electrical fast transient bursts exceeding IEC 61000-4-4, Level 3. Specified limits shall be 3.5kV.
   3. The equipment shall be immune to electrical surges per IEC 61000-4-5, Level 3 and Level 4. Specified limits shall be Level 3 4kV line-to-line, and Level 4 4kV line-to-ground.
   4. The equipment shall be immune to electrical surges per ANSI/IEEE C62.41 Surge and Ring Wave. Specified limits shall be 6kV line-to-line.
   5. The equipment shall be immune to radiated radio frequency emissions. Specified limits shall be 10V/m at 150 MHz.

C. Dielectric Isolation: Equipment withstands an alternating current potential of 1000V plus twice the rated voltage of the equipment for 1 minute without breakdown between uninsulated live parts and the enclosure with the contacts open and closed; between terminals of opposite polarity with the contacts closed; and between uninsulated live parts of different circuits.

D. Environmental Requirements

1. The equipment shall operate continuously without derating in surrounding air temperatures of -40° to 70°C (-40° to 158°F).
2. The equipment shall operate continuously without derating in relative humidity of 10% up to 95% non-condensing per IEC 68-2-3.
3. The equipment shall operate properly after storage in ambient temperatures of -40° to 80°C (-40° to 176°F).

E. Dimensions: The equipment dimensions shall not exceed 2.330" H x 2.375" W x 4.125 D" (with socket).

F. Mounting:

1. The equipment shall be mounted using the SymCom OT11-PC 11-pin Socket.
   a. The socket shall be 300V rated.
   b. The socket shall be 10A rated.
   c. The socket shall provide a means for mounting on the surface or on a DIN rail.

End of Section