REQUIREMENTS:

1. GENERAL:
   a. Interpret drawing in accordance with the standards prescribed by MIL-D-70327.
   b. Supplier shall conform to the quality assurance provisions contained in ND 100215, Class 2.
   c. Units shall be capable of meeting all qualification requirements of ND 100205.
   d. Part Marking: Parts shall be permanently and legibly marked. In accordance with ND 100209, with the manufacturer's name and/or symbol, lot code or number, terminal identification and unit part number (drawing number) and revision letter.
   e. Preparation for delivery shall be in accordance with ND 100215, Class 1, Code 1.

2. ACCEPTANCE AND INSPECTION: (100%)
   a. Mechanical and Physical Properties:
      (1) Dimensions: as delineated herein.
      (2) Surface Roughness: unless otherwise specified.
      (3) Marking: as specified in notes 1.d. and 1.e. No marking shall appear on the viewing area.
      (4) Panel color and marking:
         color, energized: cross hatched legend areas to be yellow, all other legend areas to be white.
         color, unenergized: legend background to be low reflective, diffuse, neutral gray when not energized. Contrast between black characters and unlighted background shall be between 2 to 4 units in accordance with MIL-P-7799.
         surface gloss: the display areas shall have a surface gloss of 5 units or less as measured per MIL-P-7798 when in the unenergized condition.
         marking, legend: legends shall be as shown on drawing. Characters shall be Gorton Condensed Establishment Nomencature orerna.
         overall height of characters shall be .156. The line stroke width shall be .025/.030. Legend shall be centered on display face plate. Fill shall be black color no. 37038 per FED-STD-595 and shall be opaque when legend is energized.

PROCURE ONLY FROM APPROVED SOURCES LISTED IN ND 1002034 FOR THIS DRAWING.
REQUIREMENTS (CONTINUED)

3. DESIGN:
   a. Operating Life: 4000 hours minimum at power dissipation per note 2.31 at 70°F ± 10°F ambient temperature.
   b. Material: All material shall be capable of meeting the requirements of this drawing and exhibit no toxicity.
      (1) Plastic face plate: Acrylic sheet plastic per MIL-P-5425, finish A.
      (2) Case: Aluminum alloy.
   c. Finishes:
      (1) Aluminum case: Chormic treat per MIL-C-5541.
      (2) Paint surfaces marked 'A' and top border area (excluding the surface of panels) gray epoxy enamel per ND 1002279 using 1008505-1
      (3) Final coat surfaces marked 'A' per ND 1002277 using 1012543-003
   d. Terminals and insulators: Shall meet the requirements of NO 1002136.
   e. Panel colors: See Note 2.4.(4) Yellow color to be aviation yellow and white color to be aviation white per MIL-C-25050. Color coordinates shall remain within the limits of the specified aviation colors when energized from 5.0 thru 3.0 VDC. The X-Y coordinate for the aviation white display shall not exceed X = 0.500 and shall not exceed 0.365 when energized from 5.0 thru 3.0 VDC.
   f. Lamps: Each of the 10 legend areas shall be illuminated by 3 lamps, parallel wired as per 2.3.1 in the schematic. The yellow display lamps to be MS 24367-19 and white display lamps to be MS 24367-713.
   g. When mounted on a suitable fixture, the unit shall be capable of withstanding a pressure of 15 PSIA of helium applied against the 25 square inch area. When the external pressure is reduced to 10°mg Equivalent pressure when subjected to this differential pressure, the unit shall exhibit a leak rate of no more than 1 x 10^-11 AEC per 10°C to 62°C.
   h. Test: This unit is to be mounted on a heat sink when legends are energized for periods longer than two (2) minutes. A satisfactorily heat sink can be an aluminum or brass plate 10" x 10" x 1/8" with a centered rectangular opening for mounting the unit.

5. CONSTRUCTION (003 ONLY)
   a. Bulbs to be used shall meet the requirements of MS 29-647, and shall be screened for the following defects:
      (1) Surface cracks.
      (2) Scratches and tool marks.
      (3) Raw unpainted glass edges in final seal area.
   b. Bulbs which exhibit these defects shall not be used in displays supplied to this specification.