<table>
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<th>SYMBOL</th>
<th>PREP BY</th>
<th>DESCRIPTION</th>
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<td></td>
<td>John P. Lawrence</td>
<td>Procurement Specification for a Thermostatic Switch (Elmwood Sensors)</td>
<td>7/27/65</td>
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**APPROVED**

George P. Kramer, Jr.  
7/27/65

**APPROVED**

**APPROVED**

# S-311-426

**Branch** - PARTS  
**Division** -  
**Project** -  

GODDARD SPACE FLIGHT CENTER  
GREENBELT, MARYLAND
1.0 **SCOPE:** This document defines the special requirements to be specified by the user and acceptance test requirements to be performed by the manufacturer (Elmwood Sensors Inc.) prior to shipment.

2.0 **GENERAL**

2.1 **Intended Application:** These thermostatic switches must meet the rigors of launch and subsequent extended spaceflight with extremely high probability of successful operation.

2.2 **Standard Test Conditions:** Unless otherwise specified, all tests, measurements, inspections and examinations shall be conducted under the following conditions:
   a. Temperature - +15\(^\circ\)C to 35\(^\circ\)C
   b. Relative Humidity - 30 to 80 percent
   c. Barometric Pressure - 750 to 800 mm of mercury

2.3 **Recording and Shipment of Data:** Acceptance test data shall be recorded on data sheets suitable for the purpose. Data shall be related to the respective switch serial number. A copy of the data summary shall be shipped with the switches.

3.0 **REQUIREMENTS:** The total switch requirements are comprised of those delineated in:

   a. The purchase order/request (see para. 3.1)
   b. Para. 3.2

3.1 **Purchase Order/Request Requirements:** The purchase order/request shall specify the following:

   a. The physical configuration desired
   b. Define the temperature set points as maximum temperature and minimum temperature with 20°F minimum spread between maximum and minimum limits and with
a 70°F minimum differential. Specify whether the switch should open on temperature rise or close on temperature rise, or alternately, define open or close as the critical set point with a tolerance of ±50°F and allow the other set point to float 7 to 20°F above or below the critical set point.

3.2 Inspection, Screening and Quality Control Requirements: The following Elmwood Sensors Inc. (Cranston, Rhode Island) documents, in effect on the date of imitation for bids, or request for proposal, form a part of the switch requirements. Unless otherwise specified, the entire document applies:

   a. PS2204 - Pre-cap Inspection for Hi-rel Switches 1/
   b. PS2229 - Small Particle Cleaning Station Operation 2/
   c. SR109-1 - Special Requirements and Procedures for Group "A" Inspection 3/
   d. ES1177 - Group "B" Inspection Procedure
   e. PS2000-11 - Plating Specifications (Nickel Plate-Dull)

Reference:

1/ Pre-cap visual inspection - 100 percent of specimens.
2/ Millipore cleaning and inspection - cleaning, 100 percent; inspection 2 percent.
3/ Screening tests - 100 percent of specimens.
4/ Group "B" tests - 4 specimens from Group A screening.