ORIGINAL

REVISIONS				
SYMBOL	PREP BY	DESCRIPTION	DATE	APPROVAL
A		RN A010 INACTIVATES DWG FOR NEW DESIGN	9/20/90	

INACTIVE FOR NEW DESIGN;
(REFER TO GSFC S-311-641 GENERAL REQUIREMENT FOR THERMOSTATIC SWITCHES)

PREPARED BY John P. Lawrence	DATE 7/25/85	TITLE Procurement Specification for a Thermostatic Switch (Sunstrand Data Control Inc.)
APPROVED George P. Kramer, Jr	7/25/85	
APPROVED		
APPROVED		
		* S-311-428

Branch – Parts
Division –
Project –

GODDARD SPACE FLIGHT CENTER
GREENBELT, MARYLAND

520-23 (3/64)

Switch, Thermostatic

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 (Sunstrand Data Control 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° to 35°C

b. Relative Humidity - 30 to 80 percent

c. Barometric Pressure - 650 to 800mm 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 7°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 ±5°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 Sunstrand Data Control Inc. (Redmond, Washington) documents (as a minimum), in effect on the date of invitation for bids, or request for proposal, form a part of the switch requirements. Unless otherwise specified, the entire document applies:

a. 061-0223-001 - Inspection Criteria for Thermal Switches 1/

b. 061-0278 - Determining Thermal Switch Cleanliness Using Micro-Particle Analysis 2/

c. 975-0000-601 - Product Specification, High Reliability Thermal Switch

d. 975-0000-701 - Standard Acceptance Test Procedure--Switch, Thermal 3/

e. 975-0000-101 - Group "B" Inspection Test Procedure for SDC High Reliability Thermal Switches 4/

Reference:

1/ Pre-cap visual inspection - 100 percent of specimens.
2/ Millipore cleaning and testing - cleaning, 100 percent; inspection, 2 percent.
3/ Screening tests - 100 percent of specimens.
4/ Group "B" tests - Specimen size is lot dependent. (min--4, max,--8).