

E01-SAA09FT06-030
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SAA09FT06-030
OCT 10 1990

CRITICAL ITEM: Pressure modulator

Find Number: A153710

System: Environmental Control Subsystem
for the Payload Canister, Set 2

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ATTACHMENT
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Failure Category: 2

SAA No.: 09FT06-030

NASA Part No.: None

PMN/Name: H70-1326

Mfr's Johnson Controls Inc.
Part No.: R-2080

**Drawing/
Sheet No.:** 79K15271, Sheet 5; EO 14

Function: Controls opening and closing of the pressure relief vent based on the signal received from the pressure relief controller.

Critical Failure Mode: Excessive pressure output (FMN 09FT06-030.005)

Cause: Internal part failure

Failure Effect: Inability to sustain consistent canister pressure due to relief vent being opened excessively. Possible particulate contamination of payload.

ACCEPTANCE RATIONALE:

Design:

- o The pressure modulator was installed because the pressure relief controller did not provide enough GN2 to operate the relief vent.
- o **Materials:** Body - polysulfone (plastic)
Diaphragm - Buna N
Barbed air outlets - brass
Container spring clips - steel

Specifications:	<u>Rated</u>	<u>Actual</u>
Pressure (psig), inlet	25 (max)	20
Temperature (4F)	20 to 130	Ambient

Test:

Per File VI OMRSD requirements, operational checks are made at validation test, semiannually, at component replacement, and prior to each critical use as outlined in OMI's 3005, E6401, E6405, and OMI deviations P004-P013.

Inspection:

When testing the pressure relief vent opening and closure, visual inspection would detect a malfunctioning pressure modulator.

Failure History:

There is no MDAC PRACA failure history in the critical mode. Data on Set 1 from 1981 to present; data on Set 2 from 1984 to present.

Operational Use:

Not applicable.