

E01-SAA09FT06-011
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Rev. C

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S040244
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SFP Item: Pressure Regulator

Find Number: A103656

Criticality Category: 2

SAA No: 09FT06-011

System/Area: Fluid & Gas Subsystem P/L
Canister Transporter

NASA Part No: 79K80002-9

PMN/Name: A70-0892

Mfg Part No: Grove Valve & Regulator
10927EK3A

Drawing/Sheet No: 79K08346/
2

Function: Regulates 2000 psig GHe supply to 75±6 psig.

Critical Failure Mode: Regulates low (FMN 09FT06-011.006)

Cause: Internal part failure

Failure Effect: Loss of GHe to the canister interface panels A thru E. Loss of GHe purge may result in damage to the payload. Failure is detectable by the I&CS.

Acceptance Rationale

Design:

- o Component Specification:

Pressure (psig)	inlet 3000/300 outlet	<u>Rated</u>	<u>Actual</u>
Temperature (°F)	-20 to 250°F		2000/775±6
			Ambient
- o Materials: Body - 300 series SST
Seats - 300 series SST
Diaphragm - mylar
Valves - nylon
- o Required flow - 4 SCFH for 12 hrs at 0-30 psig. (Available flow time with 4 SCFH - 49 hrs).
- o Flow capacity at actual pressure differential - approx. 150 SCFH at 70°F.
- o Qualified by previous usage in the Apollo program as 75M15235FPR-4, 75M18273FPR-4.

Test:

- o The valve was procured and accepted in accordance with the requirements of NASA component specification 79K80002.

Inspection:

- o Regulator pressure setting is checked prior to each operational use per OMI E3005.

Failure History:

- o No MDAC PRACA failure history in the critical failure mode.

Operational Use:

- o N/A