

E01-SAA09FTD6-011
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Rev. CSFP Item: Pressure Relief Valve

OCT 10 1990

Find Number: A103632Criticality Category: 1SS040244
ATTACHEMEI
Page 6 ofSAA No: 09FT06-011System/Area: Fluid & Gas Subsystem P/L
Canister Transporter

NASA 79K80161-5

PMN/
A70-0892Part No:Name:

Mfg Anderson Greenwood Co.

Drawing/ 79K08346/Part No: 81JS68-6Sheet No: 2Function: Provides GN₂ overpressure protection for the fluid and gas system.Critical Failure Mode: Fail open (continuous vent) (FMN 09FT06-011.003)Cause: Internal part failureFailure Effect: Loss of GN₂ to the ECS valve supply and ECS Control Panel.
Loss of canister vent control to smother in event of fire.
Potential loss of life or payload. Failure is detectable by the I&CS.Acceptance RationaleDesign:

- | | <u>Rated</u> | <u>Actual</u> |
|--|--------------|---------------|
| o Component Specification: | | |
| Pressure (psig) | 83/123 | 85 |
| Temperature (°F) | -20 to 650°F | Ambient |
| o Materials: | | |
| Body - 316 SST | | |
| Internal metal parts - 300 series SST | | |
| Seat - Teflon | | |
| Seals - Teflon | | |
| o Set cracking pressure 89 psig, reseal pressure 82 psig. | | |
| o Flow capacity approx. 207 CFM at mid-range of rated set pressure as noted above. | | |

Test:

- o The valve was procured and accepted in accordance with the requirements of NASA component specification 79K80161.
- o Annual in-place calibration for cracking pressure, reseal pressure and leak check at component replacement per OMI E6401.

Inspection:

- o Verify current relief valve calibration prior to each operational use per OMI E2004.

Failure History:

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

Operational Use:

- o N/A