

E01-SAA09FT06-011
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Rev. CS040244
ATTACHMENT
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SFP Item: Pressure Relief ValveFind Number: A103624Criticality Category: 1SSAA No: 09FT06-011System/Area: Fluid & Gas Subsystem P/L
Canister Transporter
A70-0892NASA Part No: 79K80160-12PMN/Name:Mfg Part No: Anderson Greenwood & Co.
81JS48-4Drawing/Sheet No: 79K08346/
2Function: Provides GN₂ overpressure protection for the fluid and gas system.Critical Failure Mode: Fail Open (FMN 09FT06-011.001)Cause: Internal part failureFailure Effect: Loss of GN₂ to the ECS supply unit, ECS valve control panel and Interface Panels A thru E. Loss of GN₂ purge may result in damage to payload. Loss of canister vent control to smother in the event of fire. Potential loss of life or payload.Acceptance RationaleDesign:

- | | <u>Rated</u> | <u>Actual</u> |
|--|--------------|---------------|
| o Component Specification: | | |
| Set Pressure Range (psig) | 1775-2675 | 2255/2074 |
| Temperature (°F) | -20 to 250°F | Ambient |
| o Materials: | | |
| Body - 316 SST | | |
| Internal metal parts - 300 series SST | | |
| Seat - Vespel SP-1 | | |
| Seals - Teflon | | |
| o Set cracking pressure 2255 psig, reseal pressure 2074 psig. | | |
| o Flow capacity is approx. 1800 CFM at MID-range of rated set pressure as noted above. | | |
| o Failure is detectable by the I&CS. | | |

Test:

- o The valve was procured and accepted in accordance with the requirements of NASA component specification 79K80160.
- 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 The first Payload Canister Transporter was placed in service in 1980 and the second in 1984. There is no MDAC PRACA history of failure of this component in the critical failure mode.

Operational Use:

- o N/A