

NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
		132BFM05		
PRESSURE TRANSDUCER FEEDWATER SUPPLY, ITEM 132B ----- SV767793-7 (1) ----- SV767793-8 (1)	2/1R	External leakage, water. Seal failure at the sensor mounting flange.	END ITEM: Water leakage to ambient. GFE INTERFACE: Depletion of the water reservoir. Loss of cooling /defog. MISSION: Terminate EVA when the water supply drops below CWS limits. CREW/VEHICLE: None for single failure. Possible loss of crewman with loss of SOP. TIME TO EFFECT /ACTIONS: Minutes. TIME AVAILABLE: Minutes. TIME REQUIRED: Seconds. REDUNDANCY SCREENS: A-PASS B-PASS C-PASS	A. Design - -5 Conrac and -7 Gulton: The external leak path for the primary pressure sensor is through a static radial O-seal molded from a fluorocarbon elastomer rubber. The seal groove configuration and rigidity of assembly provide squeeze under all tolerance and environmental conditions. B. Test - Component Acceptance Test - Conrac: The suit pressure sensor is subjected to acceptance testing per ATP453129-64 to shipment by the assembly vendor. This testing includes the following tests which insure there is no external leakage at the sensor port. 1. Proof pressure testing to a pressure of 60 psia for one minute using fixture which simulates the sensor installation in the PLSS. 2. Calibration check of sensor to 40 psia, using a fixture which simulates the sensor installation. Gulton: The suit pressure sensor is subjected to acceptance testing per ATP3031-1502 prior to shipment by the assembly vendor. This testing includes the following tests which insure there is no external leak path at the sensor port. 1. Proof pressure testing to a pressure of 60 psia for one minute using fixture which simulates the sensor installation in the PLSS. 2. Calibration check of sensor to 40 psia using a fixture which simulates the sensor installation. PDA Test - The suit pressure sensor undergoes proof, leakage and performance testing per SEMU-60-010 after installation on the PLSS. Certification Test - Certified for a useful life of 20 years (ref. EMUM1-0084). C. Inspection - The sensor port configuration is visually and dimensionally inspected to B/P requirements to insure there will not be any leakage paths. The O-seal is visually inspected for surface characteristics per SVHS3432, Class III to insure there are no defects which could cause a leak path. The O-seal is visually inspected for surface characteristics per SVHS3432 to ensure there are no defects which would cause a leak path. D. Failure History - None for this failure mode. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, Water Servicing Leakage and Gas Removal. None for EET processing. F. Operational Use - Crew Response - PreEVA: Trouble-shoot problem. If no success, consider EMU 3 if available. Otherwise EMU no go for EVA. PostEVA: N/A. EVA: When CWS data confirms activation of reserve water tank, terminate EVA.

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EXTRAVEHICULAR MOBILITY UNIT
SYSTEMS SAFETY REVIEW PANEL REVIEW
FOR THE
I-132 FEEDWATER SUPPLY PRESSURE SENSOR
CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

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