JPL Request for Information for Europa Flow Meter

Attachment 1

| Specifications and Performance Requirements | | |
|---|---|---|
| 1 | Material Compatibility | Mon3, MMH, Hydrazine, IPA, and Acetone |
| 2 | Line Diameter | 1/4" OD tube |
| 3 | Flow Rates (nominal) | 0.0036 lbm/sec |
| 4 | MEOP (Maximum Expected Operating Pressure) | 400 psia |
| 5 | Burst | 4 x MEOP |
| 6 | Proof Pressure | 2.5 x MEOP |
| 7 | External Leakage Limit | < 1 x 10^-6 scc/sec GHe |
| 8 | Response Time (Time to 90% of Steady State) | < 5 msec |
| 9 | Accuracy | +/- 0.3% of Full Scale |
| 10 | Operational Temperature | -20 deg C to 70 deg C |
| 11 | Lifetime | 15 years continuous duty in deep space |
| 12 | EMC | MIL-STD-461E |
| 13 | Radiation (electronics and all additional hardware) | 300 kRad |
| 14 | Power Consumption | < 7.5 Watts |
| 15 | Voltage | 24 to 32 VDC |
| 16 | Signal | Digital, RS232/RS422 |
| 17 | Max Acoustic | 132 db |
| 18 | Steady State Acceleration | 6.25 g on all 3 axis |
| 19 | Sine Vibration | 0-50Hz: 1 g |
| | | 50-100 Hz: 1.25g |
| | | sweep rate: 4 octave/min |

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Attachment 2

| Specifications and Performance Requirements | | |
|---|---|---|
| 1 | Material Compatibility | Mon3, MMH, Hydrazine, IPA, and Acetone |
| 2 | Line Diameter | 3/8" OD tube |
| 3 | Flow Rates (nominal) | 0.17 lbm/sec |
| 4 | MEOP (Maximum Expected Operating Pressure) | 400 psia |
| 5 | Burst | 4 x MEOP |
| 6 | Proof Pressure | 2.5 x MEOP |
| 7 | External Leakage Limit | < 1 x 10^-6 scc/sec GHe |
| 8 | Response Time (Time to 90% of Steady State) | < 5 msec |
| 9 | Accuracy | +/- 0.3% of Full Scale |
| 10 | Operational Temperature | -20 deg C to 70 deg C |
| 11 | Lifetime | 15 years continuous duty in deep space |
| 12 | EMC | MIL-STD-461E |
| 13 | Radiation (electronics and all additional hardware) | 300 kRad |
| 14 | Power Consumption | < 7.5 Watts |
| 15 | Voltage | 24 to 32 VDC |
| 16 | Signal | Digital, RS232/RS422 |
| 17 | Max Acoustic | 132 db |
| 18 | Steady State Acceleration | 6.25 g on all 3 axis |
| 19 | Sine Vibration | 0-50Hz: 1 g |
| | | 50-100 Hz: 1.25g |
| | | sweep rate: 4 octave/min |