

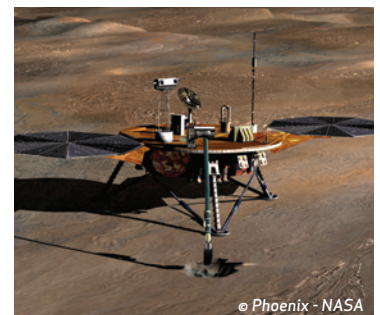
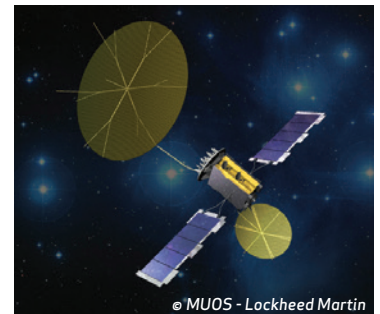
## MONOPROPELLANT THRUSTER VALVES



The Moog solenoid thruster valves are available in a single seat or series redundant seat. The valve has a normally closed configuration.

### KEY ADVANTAGES

- Minimum dribble volume
- All welded design to prevent external leakage
- AFE411 seal and stainless steel construction
- Normally closed valve state



# MONOPROPELLANT THRUSTER VALVES

## PERFORMANCE CHARACTERISTICS

Characteristic	0.17 lbf (0.75 N) Thrust Single Seat	0.2 lbf (1 N) Thrust Redundant Seat	9 lbf (40 N) Thrust Single Seat	160 lbf (711 N) Thrust Single Seat
Max Operating Pressure, MEOP [psia(bar)]	386 (26.6)	400 (27.6)	500 (34.5)	276 (19)
Proof Pressure [psia(bar)]	886 (61.1)	1500 (103.4)	1500 (103)	450 (31)
Burst Pressure [psia(bar)]	1486 (102.5)	2650 (182.8)	2911 (200)	715 (49.3)
Flow Coefficient [GPM water/(psid) <sup>0.5</sup> ]	0.00003	0.0001	0.0013	0.019
Operating Voltage Range [Vdc]	24 to 32	24 to 37	22 to 32	98 to 136
Maximum Open Response Time [msec]	1	10	15	30
Maximum Close Response Time [msec]	1	10	15	20
Power Consumption [watts]	10.4 at 32 Vdc, 40F	8.69 at 28 Vdc, 45F	26.5 at 32 Vdc, 70F	122 at 136 Vdc, 70F
Leakage per Seat, Internal [scc/hr]	0.4	0.4	0.2	3.6
Leakage, External [scc/s]	1E-6	1E-6	1E-6	1E-3
Cycle Life [cycles]	1,000,000	1,000,000	100,000	100,000
Weight [lbm (gram)] excluding leadwires	0.067 (30)	0.48 (218)	0.5 (230)	2.5 (1134)
Inlet Filtration [micron absolute rating]	15	20	25	25
Operating Temperature Range[°F (°C)]	40 to 300 (4.4 to 149)	40 to 300 (4.4 to 149)	40 to 300 (4.4 to 149)	40 to 300 (4.4 to 149)
Representative Model Numbers	-051-271	-051-346D	51-288	53-291B



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