



Bipropellant Thruster Valves

The solenoid 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
- PTFE seal and stainless steel construction
- Normally closed valve state



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Performance Characteristics			
Characteristic	2.5 lbf (10 N) Thrust Redundant Seat	45 lbf (200 N) Thrust Single Seat	100 lbf (445 N) Thrust Single Seat
Max Operating Pressure, MEOP [psia(bar)]	275 (19)	363 (25)	276 (19)
Proof Pressure [psia(bar)]	765 (52.8)	1015 (70)	450 (31)
Burst Pressure [psia(bar)]	1200 (82.8)	1450 (100)	715 (49.3)
Flow Coefficient [GPM water/(psid) ^{0.5}]	0.00043	0.0047	0.009
Operating Voltage Range [Vdc]	49 to 51	23.5 to 31.1	20 to 32
Open Response Time [msec]	6 max	22 max	30 max
Close Response Time [msec]	6 max	15 max	20 max
Power Consumption [watts]	217 at 51 Vdc, 70F	42 at 31.1 Vdc, 70F	47.6 at 32 Vdc, 70F
Leakage per Seat, Internal [scc/hr]	3	5	5
Leakage, External [scc/s]	1E-6	1E-5	1E-4
Cycle Life [cycles]	1,000,000	100,000	5,000
Weight [lbm (gram)]	0.4 (182)	1.2 (545)	0.9 (409)
Inlet Filtration [micron absolute rating]	25	25	25
Operating Temperature Range[°F (°C)]	40 to 250 (4.4 to 121)	32 to 122 (0 to 50)	40 to 200 (4.4 to 93.3)
Representative Model Numbers	-051-178-5	53-247A	53-200C

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