

V27700-185-W

2-Way Latching Propellant Solenoid Valve



Valcor Engineering Corporation



DESCRIPTION

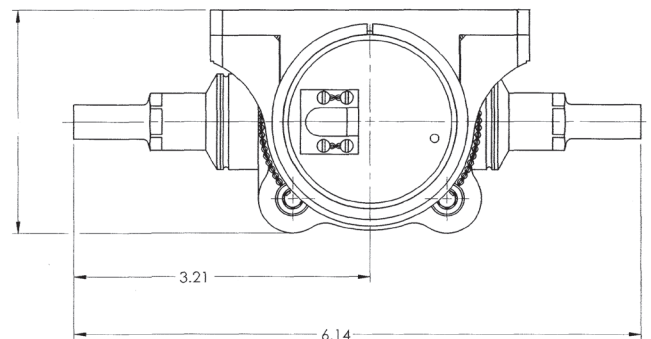
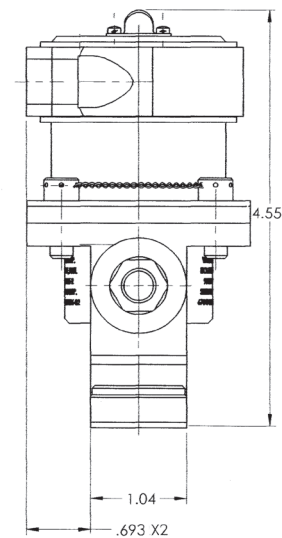
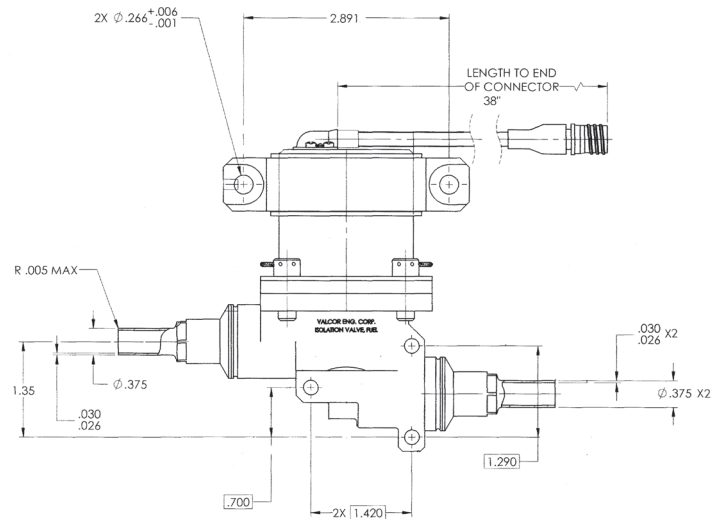
V27700-185-W valves are direct acting, latching hypergolic propellant valves designed for spacecraft and launch vehicle applications. They are designed to control hypergolic propellants, including MMH and NTO, and are well-suited for the extreme vibration, temperature, and cycle life requirements found in the most severe spacecraft and rocket operating conditions. The compact size and low weight allow these valves to be used in the tightest space available. The solenoid is a hermetically sealed dual coil latching design that allows the valve to remain in the open or closed position without the need for continuous power. The valve has a fast-acting balanced poppet capable of remaining open or closed regardless of flow or pressure. The coil is hermetically sealed and capable of withstanding the most extreme environments.

APPLICATION

V27700-185-W valves are typically used in spacecraft and launch vehicle applications.

FEATURES

- Maximum Operating Pressure: 0-1850 PSIG
- Flow Rate: See table on page 2
- Leak Rate: Internal is 1×10^{-3} sccs at 950 psig; External² is 3×10^{-4} sccs at 950 psig
- Temperature: 0°F to 150°F
- Electrical Connection: MS3102A-10SL-4P
- Wetted Materials: Titanium, 430F, 302, 303, 316, PTFE
- Weight: 2.3 to 3.4 lbs
- Fast response is <100 ms
- Fully customizable for your application



Custom designs are our specialty. Contact us today to see how we can help on your next project.

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Operating Pressure & Flow Ranges

Config.	Stub Tube Material	Voltage (VDC)	Current (Amps)	ESEO (inches)	Oper. Pressure (psig)	Weight (lbs)
1	Titanium	22-34	2.0	.28	900	2.3
2	CRES 316 ¹	24-34	3.5	.19	1850	3.2
3	CRES 316 ¹	24-34	3.5	.22	1850	3.4

- 1.) Also available in titanium 6Al-4V
- 2.) External leakage rate of 1×10^{-6} available upon request for CRES configuration only.
- 3.) Applies only to the titanium configuration.
- 4.) Shown with harness.
- 5.) Photo shown less mounting bracket.

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