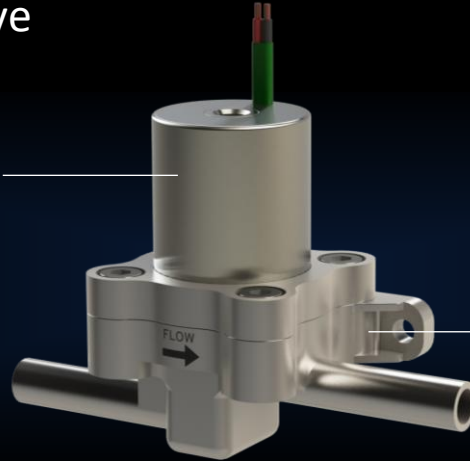


HOOVER**Isolation Latch Valve**

- CRES or Titanium fluidic interface
- SpaceX rideshare compliant (RPUG)
- Availability off the shelf



- Low mass and size design
- Integrated filter
- Redundant external seal design
- Design & testing based on ECSS

Performance

Pressure range (MEOP)	0 ... 207 bar
Proof pressure	1.5 x MEOP
Burst pressure	2.5 x MEOP
Flow coefficient K_v	$8.65 \times 10^{-3} \text{ m}^3/\text{h} \cdot \text{bar}^{1/2}$
ESEOD ($C_d = 0.6$)	0.6 mm
Internal leakage	$< 10^{-4} \text{ sccs GHe}$
External leakage	$< 10^{-6} \text{ sccs GHe}$
Response time	100 ms
Filter screen size	100 microns
Operating cycles	100,000 open/closing

Interface

Electrical interface	Flying leads
Supply voltage	28 VDC
Coil resistance	22 Ω – 28 Ω
Mechanical interface	2 x M3 fasteners
Size (starting)	68 mm x 44 mm x 30 mm
Mass (starting)	160 g
Wetted material	CRES, polyimide, nickel-cobalt alloy, silicon iron alloy, polyamide-imide
Fluidic interface	1/4" weldable tube

Environmental

Temperature range	-40°C to +80°C operational
Random vibration / Shock	19.9 g_{rms} / SRS 1000 g (ECSS-E-ST-10-03C)
Compatibility	Water, butane, propane, He, N2, Xe, Kr, Ar

Customization

Electrical / mechanical interface	Custom connector
Fluidics interface	VCR, Swagelok tube fitting
Tube interface material	AISI 316L or Ti-6Al-4V
Configuration	Dual valve design
Analysis	Structural