

Ridge Seal Valve

Key Features

- No-resistance flow, same as ball valve performance
- Reduced mass over standard ball valve
- Reduced friction/torque during opening/closing of valve
- Spring-energized seal for improved seal life
- Compatible with any rotary actuator
- Patent Pending



Product Overview

The ITT Aerospace Controls 2" (50.8 mm) Ridge Seal Valve is an electric motor actuated, normally closed segmented ball valve. The Ridge seal configuration eliminates typical ball valve seal contact and wear. The majority of the seal is not in contact with the segmented ball during transition from "Close" to "Open" or vice versa, except in fully closed position. Point contact rather than line contact during the transition results in lower friction/torque in transition. This design maximizes seal life, minimizes operating torque, and reduces leakage over valve operating life. Ridge Seal Valve supports both fuel and nitrogen-enriched air flow systems.



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Specifications

Pressure	
Operating	60 psig (4.14 bar)
Proof	240 psig (16.55 bar)
Burst	360 psig (24.82 bar)
Negative	60 psig (4.14 bar)
Temperature	
Ambient	-65° F to +158° F (-54° C to +70° C)
Fluid	-65° F to +150° F (-54° C to +65.6° C)
Operating Torque	
	Pressurized @ 60 psig and -65° F (@ 4.14 bar and -54° C)
	Open and Close 20 in-lb. (2.26 Nm)
Internal Leakage	
Jet Fuel	< 0.1 sccm from -12.2 psig to +60 psig (-0.84 bar to 4.14 bar)
Nitrogen (GN ₂)	< 1.0 sccm from -12.2 psig to +60 psig (-0.84 bar to 4.14 bar)
External Leakage	
Jet Fuel / Nitrogen (GN ₂)	Zero from 0 psig to 360 psig (0 bar to 24.82 bar)
Pressure Drop	
	1.0 Psid max. at 300 gpm fuel (0.07 bar max. at 1135.62 lpm fuel)
Weight	
	1.9 lbs max. (0.86 Kg max.)
Operating Life	
	75,000 cycles at 60 psig (4.14 bar)

Product Dimensions

Note: All dimensions are in inches and are for reference only.

