

Fortis™

Third generation compensated servo pulser

Fortis is the third generation of Rime's patented rotary shear valve servo pulser. It builds on the proven success of our second generation slick-hd™ servo pulser and adds significant improvements in reliability across the entire operating regime.

Fortis features our patented Certus valve topology that improves upon the already exceptional performance in high solids and high lcm environments. It has double the flow area compared to the dual port slick-hd™ and four times as much as the quad port slick-hd™, allowing greater forces to be imparted to the main valve assembly. This helps create more reliable, sharper and cleaner pulses compared to other types of servo pulsers. The Certus valve reciprocates once every two pulses providing increased durability to the valve.

Fortis decouples the hydrostatically compensated section of the servo pulser from the pulser driver module with a high torque magnetic coupling assembly. This eliminates failures of the motor and driver module caused by corrosion, fluid or gas invasion and erosion while also reducing frictional losses in the drive train.

Fortis is available with several connector and interface options including kintec, lemo and mdm.

Features:

- Built around our newly patented, third generation rotary servo valve design
- Available only as a quad port; four 0.25 inch holes
- Non-reciprocating valve
- Ultra-high wear (diamond on diamond)
- Resolver for motor feedback, analog mechanism—no halls
- New generation of electronics; greater capability for expansion
- Significantly fewer parts; less failure modes and lower operating costs
- Improved shock isolation
- 175°C, 20,000 psi rated



Specifications

Nominal length	43.5 in. (1104.9 mm) with kintec connector
Housing o.d.	1.875 in. (47.6 mm)
Operating voltage range	15 to 40 VDC (20 to 35 V recommended)
Power consumption	~4 mA standby, ~225 mA*s/pulse at 28 V (~6 joules/pulse)
Operating temperature	32° to 347°F (0° to 175°C)
Shock rating	1000 g, 0.5 ms, ½ sine, 10 times, all three axes
Vibration rating	5 to 30 Hz at 1 in. double amplitude, 30 to 500 Hz 20grms all axes
Pressure rating	20,000 psi (137,895 kPa)
Operating pulse widths	0.188 to 2.000 s
Flow switch	Integrated three axis, solid state with high configurability
Memory	8 MB non volatile memory with event and statistical data logging