

FHT Electric Rotary Valve (ERV) Specifications

Rotary Valve:

Specification	Small Valve	Large Valve
Wetted Materials	Polytetrafluoroethylene (PTFE) – Body or Stator	
	Polychlorotrifluoroethylene (PCTFE or PTFCE) – Rotor	
Connection Ports:	¼-28 UNF, Flat Bottom sealing surface	
Number of Ports:	3 – 10 Ports + Common Port	3 – 20 Ports + Common Port
Orifice Size	0.8mm (.032”) – 4.0mm (.157”)	0.8mm (.032”) – 6.0mm (.236”)
Operating Pressure	200 psi (13.8 Bar, 1.38 Mpa)	
Max Working Pressure	500 psi (34.5 Bar, 3.45 Mpa)	
Cycle life (port to port moves)	Up to 6,000,000 cycles	Up to 10,000,000 cycles
Recommended Max Duty Cycle	12.50%	
Max Peak orque	35 oz-in	90 oz-in

Note: See FHT Product Catalog for more details.

Stepper Motor:

Specification	NEMA 17 size (Small Valve)	NEMA 23 size (Large Valve)	
Step Size	1.8°	1.8°	
Operating Voltage	24 VDC	24 VDC	
Rated Current (Phase)	1.05 Amps/Phase	2.1Amps/Phase	
Holding Torque	83 oz-in (0.59 N-m)	294 oz-in (2.08 N-m)	
Resistance (Phase)	5.2 Ohms	2.4 Ohms	
Inductance (Phase)	9.4 mH	7.0 mH	
Weight (Lbs)	0.80	2.35	
Wire Color	Red	Phase A1, 26 AWG	Phase A1, 22 AWG
	Blue	Phase A2, 26 AWG	Phase A2, 22 AWG
	Green	Phase B1, 26 AWG	Phase B1, 22 AWG
	Black	Phase B2, 26 AWG	Phase B2, 22 AWG

Position Sensor I/O:

Name	Color	Function	Wire gauge (Small Valve)	Wire gauge (Large Valve)
Home	Yellow	Home signal (Open collector output low level)	26 AWG	24 AWG
Port	Brown	Port signal (Open collector output low level)	26 AWG	24 AWG
Power	Orange	+ 5 to +30 VDC	26 AWG	24 AWG
Ground	White	Ground	26 AWG	24 AWG

Controller:

Upon request, FHT will provide controller kit and help to set up control program for ERV valves. Contact FHT Engineering at 1-888-383-8468 ext #3 for more details.