

HIGH TEMPERATURE ROTARY VALVE

MRV-HT Extends your chromatography applications up to 350 °C

AFP releases a high temperature version for its sampling & switching rotary valve.

With the new R3 rotor, a PFAS-free high temperature polyimide composite, the new member of AFP's Mini Rotary valves solves the common issues of high temperature valves in the market: tendency to stick, sudden failure by rotor stripping and removes the need of complex reconditioning procedures.

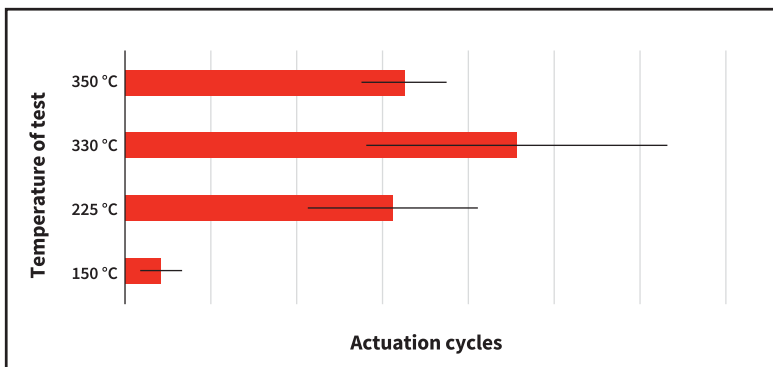
The MRV-HT was designed for applications on 225 °C to 350 °C continuous, however, this versatile material allows few actuations at room temperature without damaging the rotor*. Leak check and instrument tuning is feasible with the MRV-HT without a complex valve conditioning.

*up to 50 actuation cycles at room temperature without damaging the rotor/sealing

OPTIMAL TEMPERATURE OF OPERATION

It was found that the sweet spot for temperature, in terms of lifetime of the valve was at **330 °C**. Additionally, the MRV-HT can perform well at higher temperatures (**350 °C**) with only 15% in reduction of service in the lifetime tests.

Lifetime in function of temperature (AFP R3 rotor)



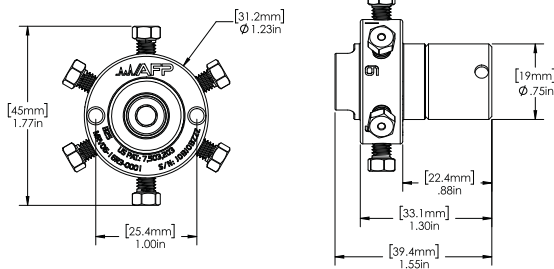
Extensive cycling at temperatures below 225 °C are not advantageous for the MRV-HT rotor, as its performance does not compare to the medium temperature rotor (AFP-R2). **AFP recommends the usage of the MRV-HT valve at applications with temperatures higher than 225 °C to obtain its full benefit.**

This new product offers the following benefits:

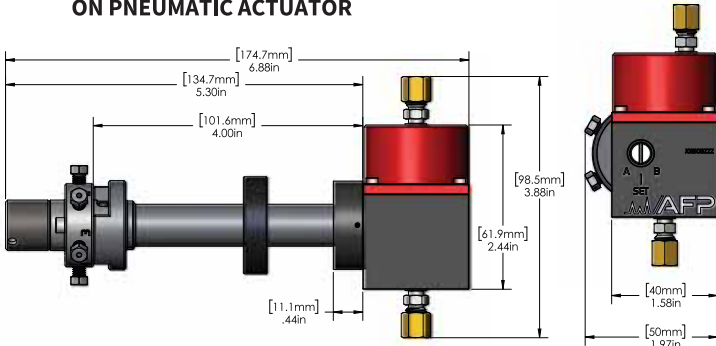
- Fully compatible with AFP pneumatic and electronic actuators.
- No reconditioning required to tune the system leading to fast installation times.
- Possibility to interrupt a high temperature cycle for maintenance and leak detection.
- Certified to operate up to 325 psi gas.
- New preload design to ease maintenance operations.
- Allows room temperature assembly and tuning, saving time and operation cost.
- Extends the range of temperatures of operations compared to current valves in the market.
- No more rotor stick nor stripping.
- Less maintenance = Cost saving installation.
- Available in 6 and 10 ports configuration, other configuration on request.

Mechanical information

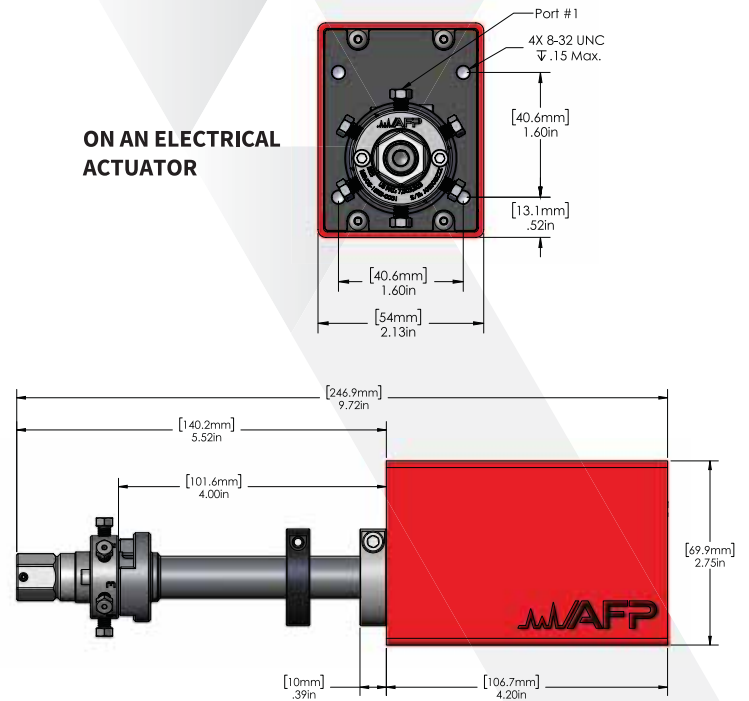
VALVES DIMENSIONS



ON PNEUMATIC ACTUATOR



ON AN ELECTRICAL ACTUATOR



PRODUCT DESCRIPTION	AFP SKU	COMPETITION SKU
High Temperature Rotary Valve, 6-ports, 350°C, Nitronic 60, 325 psi, assembled on a pneumatic actuator with a 4" standoff	MRV06-16R3-0001-4P	A4C6UWT
Rotary Valve, 6-ports, 350°C, Nitronic 60, 325 psi, assembled on an electronic actuator with a 4" standoff	MRV06-16R3-0001-4I	EUD-4C6UWT
High Temperature Rotary Valve, 6-ports, 350°C, Nitronic 60, 325 psi	MRV06-16R3-0001-00	DC6UWT
High Temperature replacement rotor 6-ports	MRV-ROT06-R3	SSAC6UWT
High Temperature Rotary Valve, 10-ports, 350°C, Nitronic 60, 325 psi, assembled on a pneumatic actuator with a 4" standoff	MRV10-16R3-0001-4P	A4C10UWT
Rotary Valve, 10-ports, 350°C, Nitronic 60, 325 psi, assembled on an electronic actuator with a 4" standoff	MRV10-16R3-0001-4I	EUD-4C10UWT
High Temperature Rotary Valve, 10-ports, 350°C, Nitronic 60, 325 psi	MRV10-16R3-0001-00	DC10UWT
High Temperature replacement rotor 10-ports	MRV-ROT10-R3	SSAC10UWT

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