



Pneumatic Zone Valve Actuators MP5100, MP5300 & MP5400

Spartan Peripheral Devices pneumatic 4sq" actuators are available in high, medium, and low spring ranges and have a compact design with minimum profile suitable for tight space requirements.

Each actuator is equipped with a neoprene diaphragm and biasing spring to aid the return spring built into the respective valve. Normally the return spring within the valve and the biasing spring within the actuator act together to open the valve.

Air pressure opposes the two springs forcing the valve closed when the air pressure is greater than the nominal spring ranges. Further air pressure opposes the pressure of the fluid within the system, closing the valve flow.

Based on the control requirements, the MP5xxx actuators can be used with a matching Spartan Peripheral Devices valve body:

2 way Normally Open operation:

Any 2 way Normally Open Spartan Valve Body

2 way Normally Closed operation:

Normally Closed Spartan Valve Body: V222

3 way Normally Open AB-A operation:

Diverging Spartan Valve Bodies: V320, V325, V345

3 way Normally Open B-AB operation:

Mixing Spartan Valve Body: V321

GENERAL ACTUATOR SPECIFICATIONS

ConstructionZinc plated steel housing

Diaphragm Heavy duty molded neoprene

Dimensions Working area 4sq"

Stroke 0.197" (5mm)

Spring Stainless steel retracts actuator shaft and allows the valve stem to rise up on loss of air pressure.

Choose from MP5100 barb fitting connection or MP5100N with 1/8" NPT connection.

Nominal Spring Range:

- MP5100/MP5100N, 3-6PSI (21Kpa-41Kpa)
- MP5300/MP5300N, 8-12PSI (55Kpa-82Kpa)
- MP5400/MP5400N, 5-11PSI (34Kpa-76Kpa)
- Nominal no load spring range is based on maximum 5mm stroke.

Starting point..... Non adjustable

Maximum air pressure30PSI (207Kpa)

Operating temperature -20 to 220°F, (-29 to 104°C)

Air Connection..... Combination 5/32" & 1/4" barb fitting for plastic tubing or 1/8" NPT connection

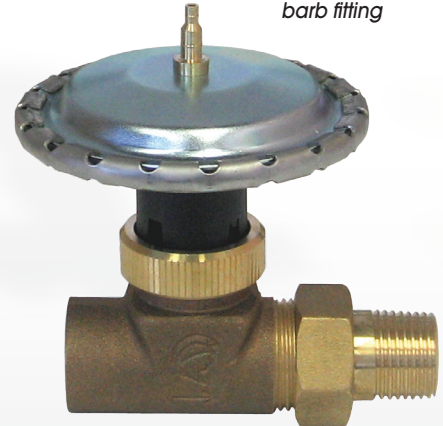
Maintenance free

MP5100N with 1/8" NPT connection



Interchangeable with the complete range of Spartan valve bodies. See Spartan Selection Guide.

MP5300 with barb fitting



Actuator No	Valve Differential Pressure (PSI)	5	10	15	20	25	30	35	40	45	50
MP5100 MP5100N	3-6 PSI Range Installed on normally open valve body	6.4	6.75	7.12	7.5	7.87	8.25	8.62	9.0	9.37	9.75
MP5300 MP5300N	8-12 PSI Range Installed on normally open valve body	12.4	12.75	13.12	13.5	13.87	14.25	14.62	15.0	15.37	15.75
MP5400 MP5400N	5-11 PSI Range Installed on normally open valve body	11.4	11.75	12.12	12.5	12.87	13.25	13.62	14.0	14.37	14.75
MP5100 MP5100N	3-6 PSI Range Installed on normally closed V222 valve body	Note: Actual range with load will be 9-12 PSI. Maximum close off pressure is 80psi									

INSTALLATION INSTRUCTIONS

The actuator can be installed vertically or horizontally. The Actuator mounting thumbnut is to be tightened by hand only, using tools may result in over-tightening.

