2/2 WAY CONTROL PISTON ACTUATED VALVE WITH INTEGRATED POSITIONER, DN15 UP TO DN50 - STAINLESS STEEL -

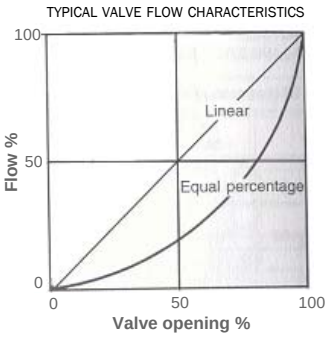
PRODUCT HIGHLIGHTS

M&M's control piston valve is an analog proportional device. Stem position is controlled in a linear manner by changing the pilot media pressure inside the actuator. This pressure is function of the user's input signal to two solenoid valves, one called Inlet Solenoid Valve, the second one Outlet Solenoid Valve (please look at layout schematic below, ITEMS **#1** and **#2**).
A feeback signal (position type , obtained with a potentiometer, ITEM **#3**) is provided in order to continuously adjust stem position and, at the same time, flow through the valve.

Control PAV gives the customer the benefit of a more precise control over the system and a minimum air consumption with the same broad choice of sizes, orifices and materials of a standard Piston Actuated Valve.

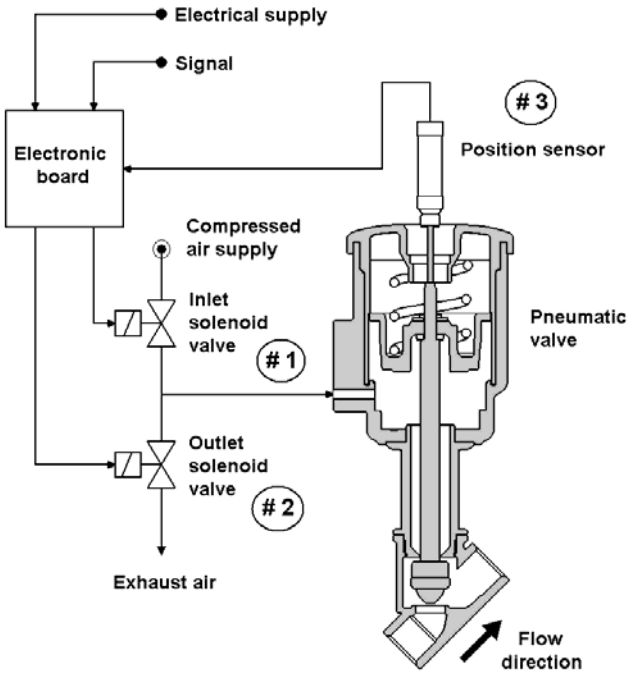
Typical applications are:

- WATER TREATMENT
- PROCESS TEMPERATURE CONTROL
- FULLY AUTOMATIC SYSTEMS



TYPE: CONTROL PAV NC

Functional LAYOUT schematic



TECHNICAL SPECIFICATIONS

Media:	water, oil, aggressive media and steam
Media temperature:	-10°C ÷ +140°C (2,6 barg for steam)
High temperature version up to 180°C available	
Low friction stem seal (not available for HT version)	
Ambient temperature:	-10°C ÷ +60°C
set point signal:	0 ÷ 10V ; 4 ÷ 20mA
Electrical supply:	24V DC
Flow characteristics:	Linear or equal percentage
Protection class:	IP65
Set-up point:	self-adjusted valve
Pilot media:	dry and filtered air mesh (25 µm)
Body material:	cast AISI 316L (ASME SA351/351M GRADE CF3M)
Bonnet material:	cast AISI 316L (ASME SA351/351M GRADE CF3M)
Actuator Ø:	63 - 90
Actuator body material:	Polyamide PA6 (reinforced fiberglass 30%)
Seal material:	PTFE
Positioner enclosure:	anodized aluminium (black)
Fail safe position:	closed, maintained
Function:	NO / NC
Electrical connections:	DIN EN 175301-803 form A
Hysteresis:	< 1% f.s.
Repetability:	< 0,5% f.s.
Minimum setpoint:	< 2% f.s.

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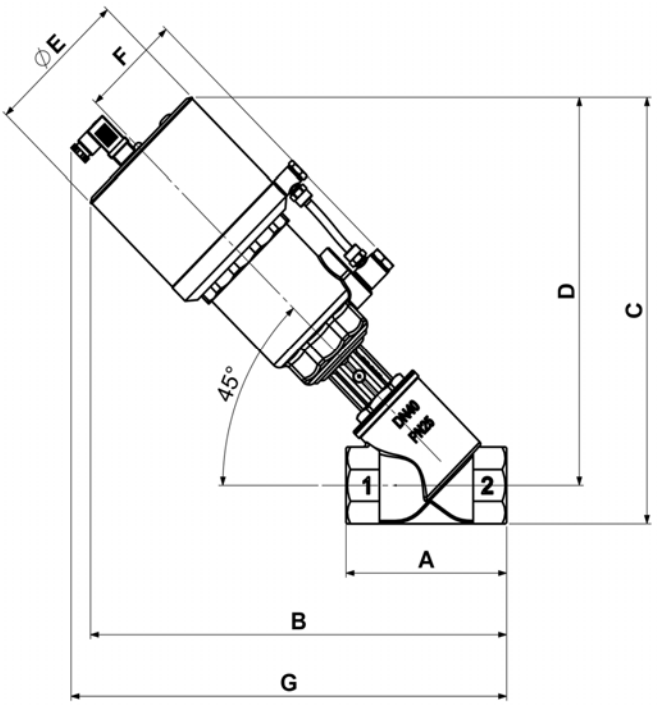
BENEFITS

Actuator housing rotation 360°
Valves DN32 ÷ DN50 complying with 97/23 EC directive category I

OPTIONS

Connection options: screwed, flanged butt welding, socket welding and sanitary clamp
Seal material: PEEK

TYPE: CONTROL PAV NC



DIMENSIONS & WEIGHTS

connection	act. ø	A	B	C	D	E	F	G	weight
[ISO 228 G]	mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
1/2”	63	65	273	267	253	107	92	288	-
3/4”		75	279	274	258			294	-
1”		90	293	287	267			308	-
1 1/4”		110	306	299	275			321	-
1 1/2”		120	311	307	280			326	-
2”		150	329	322	288			344	-
1”	90	90	295	288	268	107	112	310	-
1 1/4”		110	308	300	275			323	-
1 1/2”		120	313	308	280			328	-
2”		150	332	324	290			347	-

SELECTION TABLE

connection	orifice ø	act. ø	pilot pressure		working pressure	flow direction
[ISO 228 G]	[mm]	[mm]	min [bar]	max [bar]	max [bar]	
1/2”	DN15	63	3	8	16	ONLY 2 → 1
3/4”	DN20				16	
1”	DN25				11	
1 1/4”	DN32				6	
1 1/2”	DN40				4	
2”	DN50				2.5	
1”	DN25	90	3.3	8	14	
1 1/4”	DN32				12	
1 1/2”	DN40				8	
2”	DN50				6	

SELECTION CHART FOR STAINLESS STEEL CONTROL PISTON ACTUATED VALVE

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GENERAL

NOMINAL DIAMETER (DN)

☐ 15 ☐ 20 ☐ 25 ☐ 32 ☐ 40 ☐ 50

ACTUATOR SIZE

☐ 63 ☐ 90

☐ Gas ☐ NPT ☐ Butt-welding ISO65 ANSI B36.10 ☐ Butt-welding ISO 4200 ☐ Butt-welding DIN 11850 ☐ Socket-welding ISO65 ANSI B36.10 ☐ Clamp ISO 2852 ☐ Clamp ASME BPE ☐ Flange EN 1092 ☐ Flange ANSI

PNEUMATIC POSITIONER

PLUG

☐ Standard ☐ Linear ☐ Equi %

PROCESS TEMPERATURE

☐ 140° C ☐ 180° C

FAIL SAFE POSITION

☐ Closed ☐ Maintained

FUNCTION

☐ NC ☐ NO

SET-POINT

☐ 0 ÷ 10V ☐ 4 ÷ 20mA

OTHER INFORMATION

FLUID

☐ Water ☐ Saturated steam ☐ Superheatedsteam ☐ Gas ☐ ----------

DN (piping)

☐ IN ☐ OUT

Q

☐ Min m³/h ☐ Max m³/h
(kg/h for steam)

P1

☐ Min (bar) ☐ Max (bar)

P2

☐ Min (bar) ☐ Max (bar)