Meisonilan®

梅索尼兰，携手共辉煌

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Meisonilan®

梅索尼兰

80D01Y、80D01R

自力式（阀后）压力控制阀

梅索尼兰阀门（苏州）有限公司
MEISONILAN VALVE (SUZHOU) CO.,LTD

CONTROL VALVE

Meisonilan®
Automation Instrument

▶ 80D01Y、80D01R 自力式(阀后)压力控制阀

▲ 概述

80D01Y、80D01R 自力式(阀后)压力控制阀（阀后压力控制），由控制阀门、执行器和一个设定压力的弹簧组成。
适用于非腐蚀性的液体、气体和蒸汽，在系统管道中的阀后压力控制，当阀后压力升高时，控制阀关闭。

主要特点如下：

1、具有压力平衡功能，灵敏度高
2、低噪音，性能可靠，免于维护
3、采用标准模块化设计
4、通过组合件，可以进行多项组合控制

技术参数和性能

阀体

公称通径		DN15、20、25、32、40、50、65、80、100、125、200、250mm
公称压力		PN1.6、4.0MPa
法兰标准		ANSI、JIS、DIN、GB、JB（特殊可按用户提供）
阀体材料		铸铁（HT200）、铸钢（ZG230-450)、铸不锈钢（ZG1Cr18Ni9Ti、ZG1Cr18Ni12Mo2Ti)
阀芯材料	硬密封	不锈钢（1Cr18ni9Ti、1Cr18Ni12MoTi)
	软密封	不锈钢镶嵌橡胶圈
压力平衡		不锈钢波纹管（DN15~125）、平衡膜片（DN150~250）

执行器

有效面积(cm^2)	32※	80	250	630
压力设定范围(MPa)	0.8~1.6 0.3~1.2	0.1~0.6 0.05~0.3	0.015~0.15 0.01~0.07	0.005~0.035
保证压力阀正常工作的最小压差△P	≥0.05	≥0.04	≥0.01	≥0.005
允许上下膜室之间最大压差(MPa)	2.0	1.25	0.4	0.15
材　料	膜盖：钢板镀锌； 膜片：EPDM或FKM夹纤维			
控制管线、接头	铜管或钢管Φ10X1(mm)； 卡套式接头：R1/4"			

注：※该有效面积所对应的压力设定范围不适用于DN150~250

性能

设定值偏差		±8%		
允许泄漏量（在规定实验条件下）	硬密封	4×0.01%阀额定容量		
	软密封	DN15~50	DN65~125	DN150~250
		10气泡/min	20气泡/min	40气泡/min

▶ 80D01Y、80D01R self-operated (after-valve) pressure control valve

▲ Summary

The 80D01Y、80D01R self-operated (after-valve) pressure control valve is composed of the control valve, actuator and a spring used for pressure setting. It is suitable for controlling after-valve pressure in the pipes of non-corrosive liquids, gases and steams. When the after-valve pressure rises, the control valve is closed.

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron (HT200), cast steel (ZG230-450), cast stainless steel (ZG1Cr18Ni9Ti, ZG1Cr18Ni12Mo2Ti)
Plug material	Hard seal	Stainless steel (1Cr18Ni9Ti, 1Cr18Ni12Mo2Ti)
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator

Effective area	32※	80	250	630
Pressure setting range	0.8~1.6 0.3~1.2	0.1~0.6 0.05~0.3	0.015~0.15 0.01~0.07	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve	≥0.05	≥0.04	≥0.01	≥0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers	2.0	1.25	0.4	0.15
Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber			
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"			

Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150~250.

Performance

Set value error		±8%		
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

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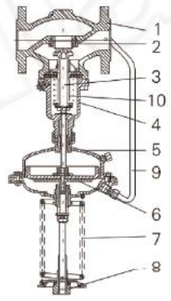
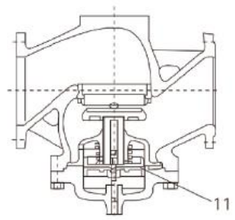
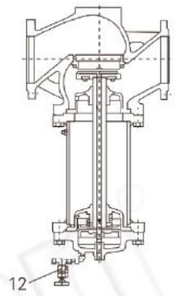
▶ 80D01Y、80D01R 自力式(阀后)压力控制阀



DN15~125



DN150~250



DN150~250
(带有阀体加长体)

结构简图

1	阀体	2	阀座	3	阀轴	4	阀盖	5	膜盖	6	膜片
7	弹簧	8	调节螺母	9	导压管	10	波纹管	11	平衡膜片	12	充注阀

允许工作温度

公称通径		15~125mm	150~250mm
密封型式	硬密封	≤150℃	≤140℃
		冷却罐≤200℃	冷却罐和加长≤200℃
		冷却罐和散热≤350℃※	冷却罐和加长≤350℃※
	软密封	≤150℃	

注：※表示该阀允许工作温度，仅当介质为蒸汽式有效，且耐温之至350摄氏度需选用PN40的阀体

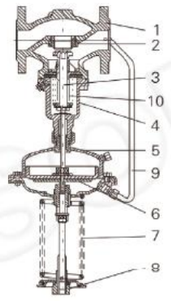
额定流量系数、噪音衡量系数、允许压差

公称通径DN		15	20	25	32	40	50	65	80	100	125	150	200	250
额定流量系数KvS		4	6.3	8	16	20	32	50	80	125	160	280	320	450
噪音衡量系数 Z值		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
允许压差 (Mpa)	PN16	1.6									1.5	1.2	1.0	
	PN40	2.0												

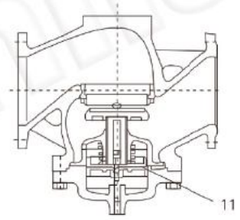
工作原理

工艺介质的阀前压力P1经过阀芯、阀座的节流后，变为阀后压力P2。P2经过控制管线输入到执行器的下膜室内作用在顶盘上，产生的作用力于弹簧的反作用力相平衡，决定阀芯、阀座的相对位置，控制阀后压力。当阀后压力P2增加时，P2作用在顶盘上的作用力也随之增加。此时，顶盘的作用力大于弹簧的反作用力，使阀芯阀关向阀座的位置，直到顶盘的作用力与弹簧反作用力相平衡为止。这时，阀芯与阀座之间的流通面积减少，流阻变大，从而使P2降为设定值。同理，当阀后压力P2降低时，作用方向与上述相反，这就是阀后压力调节时的工作原理。
当需要改变阀后压力P2的设定值，可调整调节螺母。

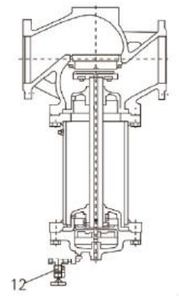
▶ 80D01Y、80D01R self-operated (after-valve) pressure control valve



DN15~125



DN150~250



DN150~250
(with body extension)

Structural figure

1	Body	2	Seat	3	Valve shaft	4	Bonnet	5	Diaphragm cover	6	Diaphragm
7	Spring	8	Adjusting nut	9	Pressure pipe	10	Bellows	11	Balanced diaphragm	12	Charging valve

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃	≤140℃
		Cooling tank≤200℃	Cooling tank and extension≤200℃
		Cooling tank and heat sink≤350℃※	Cooling tank and extension≤300℃※
	Soft seal	≤150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam and the bodywith PN40 shall be adopted when the temperature resistance is 350℃.

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure(Mpa)	PN16	1.6									1.5	1.2	1.0	
	PN40	2.0												

Working principle

After throttling by the plug and seat, the before-valve pressure P1 of the process medium is changed into the after-valve pressure P2. Through the control pipeline, P2 is input to the lower diaphragm chamber of the actuator and acts on the topdisc. The acting force produced balances the reacting force of the spring, determining relative positions of the plug andseat and controlling the after-valve pressure. When the after-valve pressure P2 increases, the acting force of P2 that actson the top disc will increase accordingly. At the time, the acting force on the top disc is higher than the reacting force ofthe spring to make the plug close towards the seat, until the acting force on the top disc balances the reacting force of thespring. At the time, the flow area between the plug and seat is reduced, the flow resistance becomes higher and P2 isreduced to the set value. Likewise, when the after-valve pressure P2 decreases, the acting direction is reverse to theabove. This is the working principle during the control of after-valve pressure.
When it is necessary to change the set value of after-valve pressure P2, please adjust the adjusting nut.

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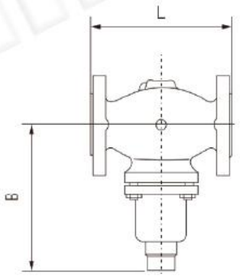
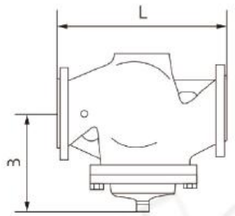
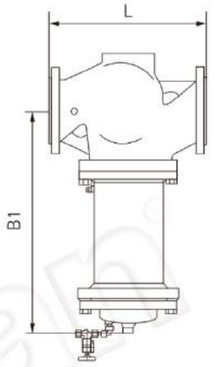
80D01Y、80D01R self-operated (after-valve) pressure control valve



DN15~125



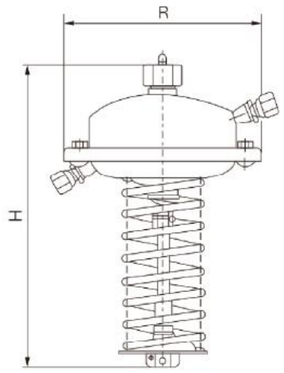
DN150~250



DN150~250
（带有阀体加长体）
(With body extension)

一、控制阀尺寸及重量 I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
重量 Weight (Kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80	140	220
B1 (mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
重量 Weight (Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300



二、执行器尺寸及重量 II. Dimensions and weight of actuator

有效面积(cm^2) Effective area(cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
重量 Weight(Kg)	7.5	7.5	13	28