Meisonilan®

梅索尼兰，携手共辉煌

梅索尼兰阀门(苏州)有限公司
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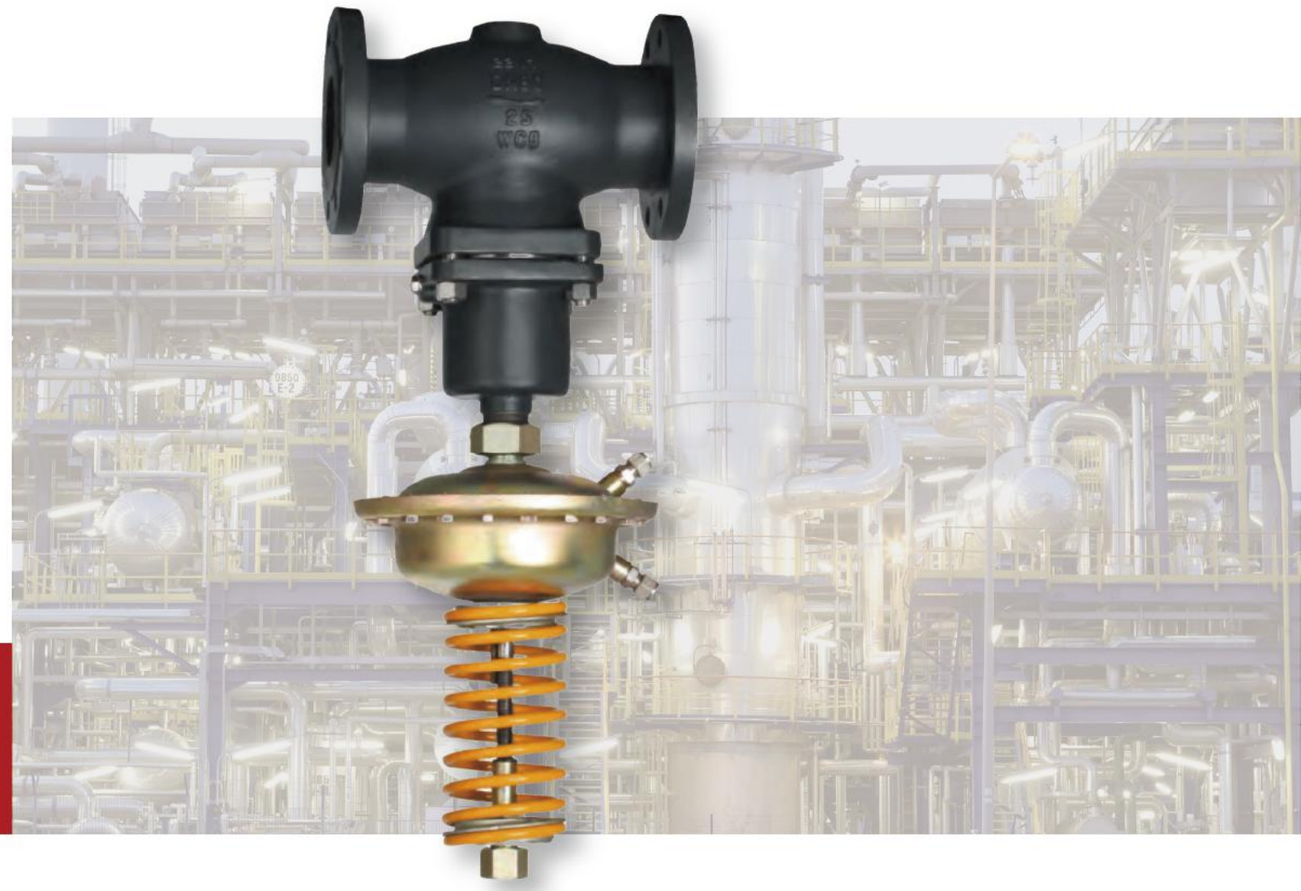
80D04Y、80D04R

自力式差压（差压上升阀开）控制阀



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CONTROL VALVE

▶ 80D04Y、80D04R自力式压差(差压上升阀开)控制阀

▲ 概述

80D04Y/80D04R 自力式压差（差压上升阀开）控制阀，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，在系统管道中的压差控制，当压差升高时，控制阀开启。

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)
阀芯材料 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)	80	250	630
压力设定范围(MPa)	0.1~0.5 0.05~0.25	0.015~0.25 0.01~0.06	0.005~0.035
保证压力阀正常工作的最小压差△P	≥0.04	≥0.01	≥0.005
允许上下膜室之间最大压差(MPa)	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"		

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

Meisonilan®
Automation Instrument

▶ The 80D04Y、80D04R self-operated differential pressure control valve

▲ Summary

The 80D04Y/80D04R self-operated differential pressure control valve is composed of the control valve, actuator and a spring used for pressure setting。
It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.when the diferential pressure rises,the control valve is opened

The main features are as follows:

1.It has the pressure balancing functionwith 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)
Plug material Soft seal	Stainless steel embedded with rubber ring
Pressure balancing	Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

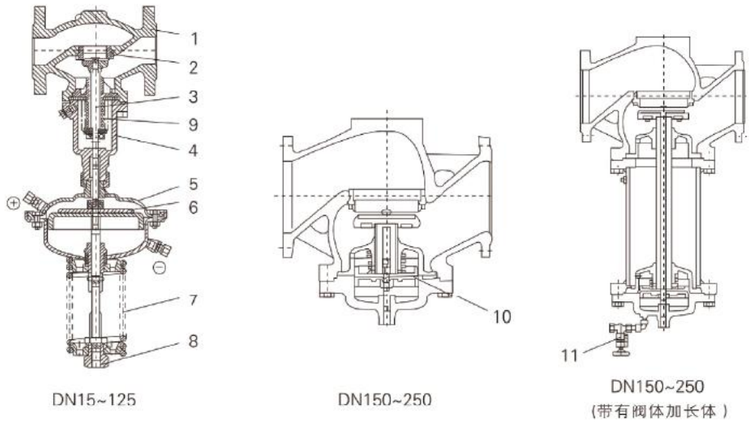
Actuator

Effective area	80	250	630
Pressure setting range	0.1~0.5 0.05~0.3	0.015~0.12 0.01~0.07	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve	≥0.04	≥0.01	≥0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers	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'		

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

▶ 80D04Y、80D04R自力式压差(差压上升阀开)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 波纹管　10 平衡膜片　11 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℃ 冷却罐≤200℃ 冷却罐和散热≤350℃※	≤140℃ 冷却罐和加长≤200℃ 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

工艺介质通过阀节流后，进入被控设备，而被控设备的差压，分别引入阀的上、下膜室，在上、下膜室内产生推力，并与弹簧反力相平衡，从而确定了阀芯与阀座的相对位置，而阀芯与阀座的相对位置确定了差压值△P的大小。当被控差压变化时，力的平衡被破坏，从而带动阀芯运动，而阀芯的运动改变了阀的阻力系数，即控制了被控差压值为设定值。这就是差压控制的工作原理。
当需要改变差压设定值时，可调整调节螺母。

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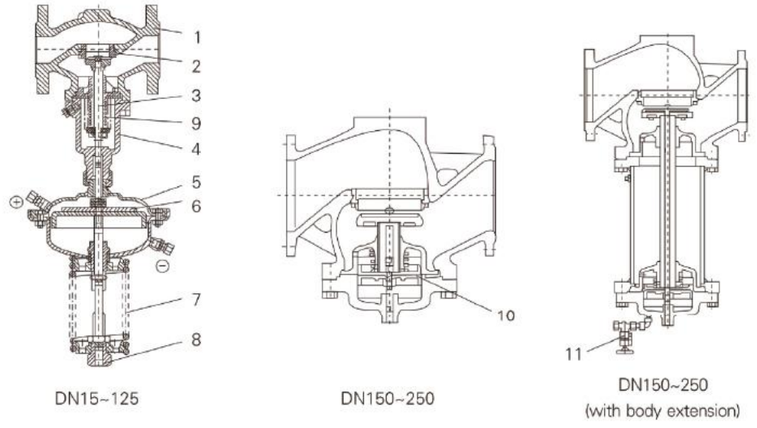

DN15~125　　DN150~250　　DN150~250 (with body extension)

Structural figure

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

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃ Cooling tank≤200℃ Cooling tank and heat sink≤350℃※	≤140℃ Cooling tank and extension≤200℃ 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	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, P1 is input to the upper diaphragm chamber of the actuator and acts on the top disc.
The acting force produced balances the reacting force of the spring, determining relative positions of the plug and seat and controlling the before-valve pressure. When the before-valve pressure P1 increases, the acting force of P1 that acts on the top disc will increase accordingly. At the time, the acting force on the top disc is higher than the reacting force of the spring to make the plug move away from the seat, until the acting force on the top disc balances the reacting force of the spring. At the time, the flow area between the plug and seat is increased, the flow resistance becomes lower and P1 is reduced to the set value. Likewise, when the before-valve pressure P1 decreases, the acting direction is reverse to the above. This is the working principle during the control of before-valve pressure.
When it is necessary to change the set value of before-valve pressure P1, please adjust the adjusting nut.

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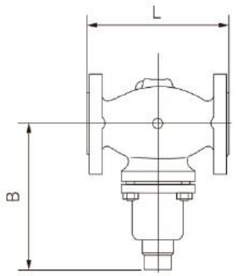
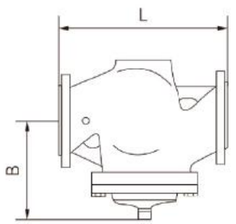
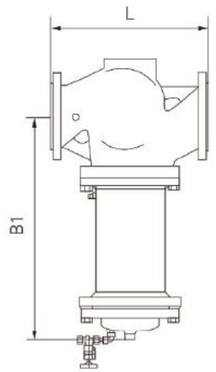
The 80D04Y、80D04R self-operated differential pressure control valve



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
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