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80D03Y、80D03R

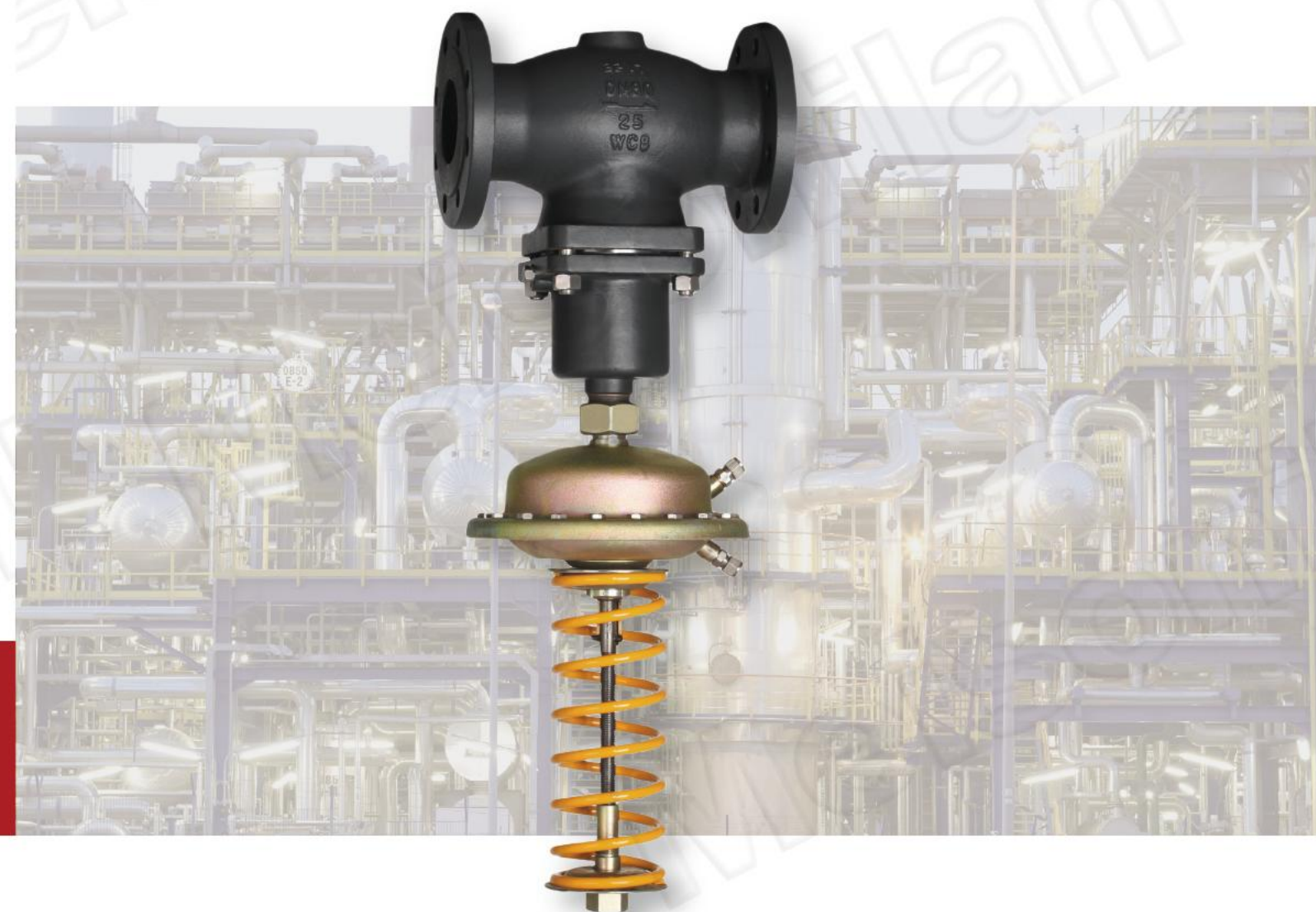
自力式差压（差压上升阀关）控制阀

Meisonilan®

梅索尼兰，携手共辉煌

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CONTROL VALVE

► 80D03Y、80D03R 自力式压差(差压上升阀关)控制阀

▲ 概述

80D03Y/80D03R 自力式压差（差压上升阀关）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(cm²)	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	铜管或铜管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 10气泡/min	DN65~125 20气泡/min	DN150~250 40气泡/min

► The 80D03Y/80D03R self-operated differential pressure control



▲ Summary

The 80D03Y/80D03R self-operated differential pressure control valve is composed of the control valve, actuator and a spring used for pressure setting. It is suitable for controlling differential pressure in the pipes of non-corrosive liquids, gases and steams. When the differential 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 and performances

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		80	250 630
Pressure setting range		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 the pressure 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"	

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

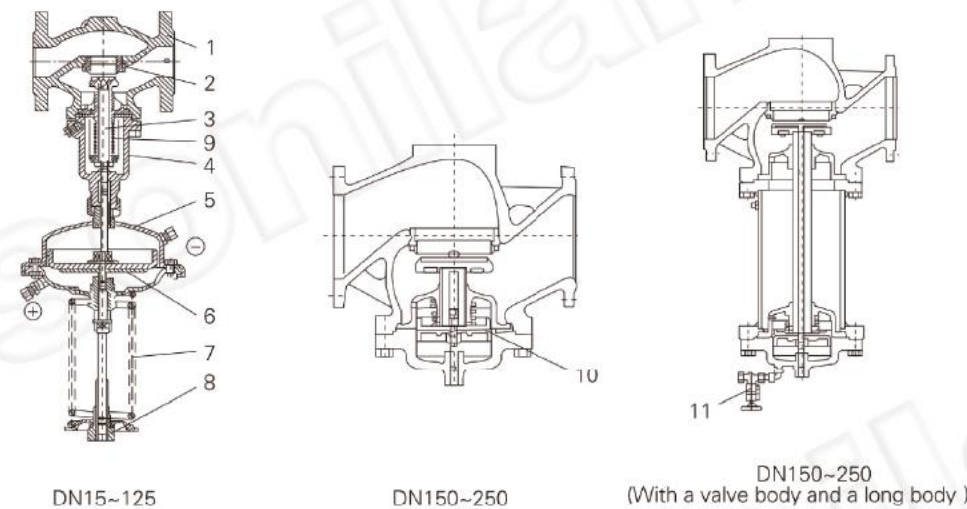
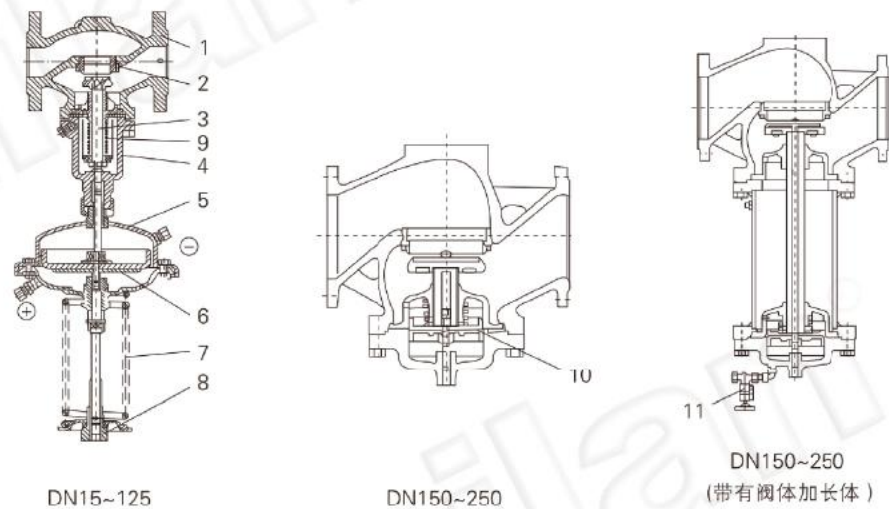
Performance

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



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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		

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		

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℃
	软密封	冷却罐和散热≤350℃※	冷却罐和加长≤350℃※
		≤150℃	

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

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℃.

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								

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								

工作原理

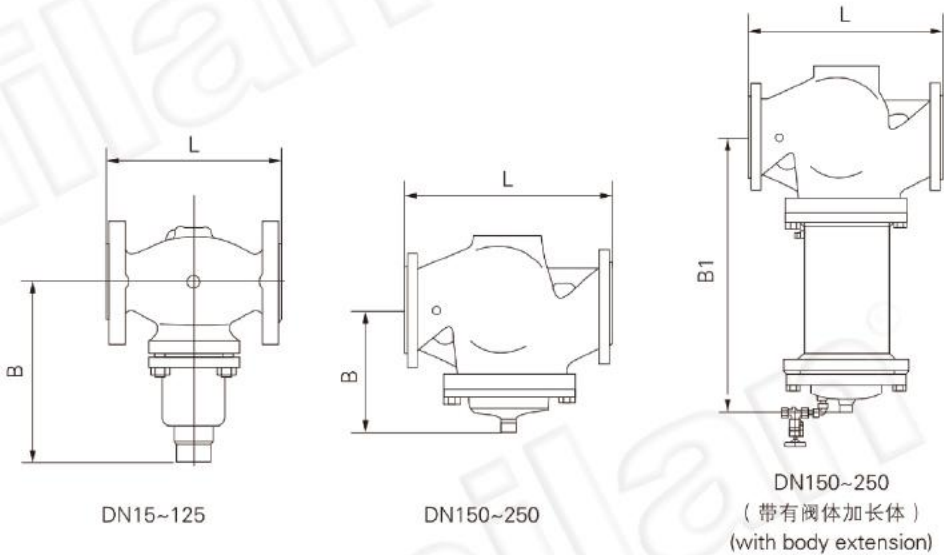
工艺介质通过阀节流后，进入被控设备，而被控设备的差压，分别引入阀的上、下膜室，在上、下膜室内产生推力，并与弹簧反力相平衡，从而确定了阀芯与阀座的相对位置，而阀芯与阀座的相对位置确定了差压值ΔP的大小。当被控差压变化时，力的平衡被破坏，从而带动阀芯运动，而阀芯的运动改变了阀的阻力系数，即控制了被控差压值为设定值。这就是差压控制的工作原理。当需要改变差压设定值时，可调整调节螺母。

Working principle

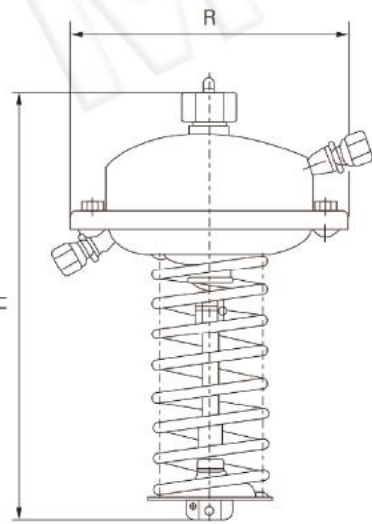
After throttling by the valve, the process medium enters the controlled equipment. The differential pressure of the controlled equipment is introduced into the upper and lower diaphragm chambers and produces thrust in the upper and lower diaphragm chambers that balances the reacting force of the spring, so as to determine relative positions of the plug and seat, which determine the differential pressure value ΔP. When the differential pressure changes, the balance of forces is destroyed and the plug is driven to move, and the movement of the plug changes flow coefficient of the valve, i.e., the differential pressure is controlled to be the set value. This is the working principle of differential pressure control. When it is necessary to change the set value of differential pressure, please adjust the adjusting nut.



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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(cm²) Effective area(cm²)	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