Meisonilan®

梅索尼兰，携手共辉煌

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

地址：中国苏州市吴中区横泾天鹅荡路2588号
电话：0512-6812 6111
传真：0512-6812 7111
邮箱：sales@meisonilan.com
网址：www.meisonilan.com

Meisonilan®

梅索尼兰

80D12Y、80D12R

指挥器操作型自力式(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

▶ 80D12Y、80D12R 指挥器操作型自力式（阀后）压力控制阀

▲ 概述

80D12Y、80D12R 指挥器操作型自力式（阀后）压力控制阀，由控制阀门、执行器和一个设定压力的指挥器组成。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、控制精度高

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)	250
压力设定范围(MPa)	0.01~0.12 0.08~0.25 0.2~0.5 0.45~1 0.6~2.0
保证压力阀正常工作的最小压差△P(MPa)	DN15~125为0.08 DN150~250为0.1
允许上下膜室之间最大压差(MPa)	0.4
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		±4%		
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

▶ The 80D12Y、80D12R pilot–operated (after valve) pressure control valve

▲ Summary

The 80D12Y/80D12R pilot–operated (after valve) pressure control valve is composed of the control valve，pilot and actuator.
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 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.High control precision

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	250
Pressure setting range	0.01~0.12 0.08~0.25 0.2~0.5 0.45~1 0.6~2.0
Minimum differential pressure that ensures normal work of thepressure valve	DN15~125为0.08 DN150~250为0.1
Allowable maximum differential pressure between the upper and lower diaphragm chambers	0.4
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"

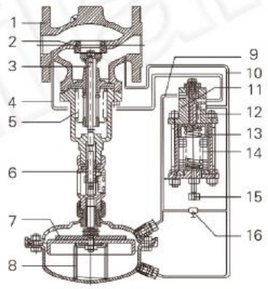
Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150–250.

Performance

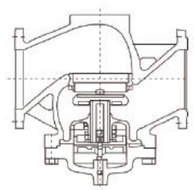
Set value error		±4%		
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

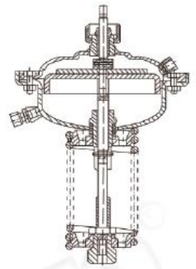
Meisonilan®
Automation Instrument

▶ 80D12Y、80D12R 指挥器操作型自力式（阀后）压力控制阀



DN15~125





DN150~250

结构简图

1	阀体	5	阀座	3	阀杆	4	阀前压力P1导压管
5	平衡波纹管	6	行程显示件	7	膜片	8	弹簧
9	操作压力Ps导压管	10	阀后压力P2导压管	11	指挥器	12	指挥阀芯
13	弹簧	14	波纹管	15	调节螺钉	16	可调针阀

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

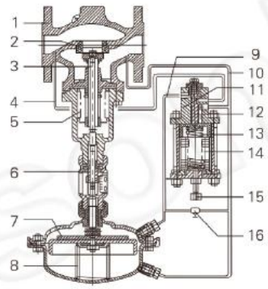
额定流量系数、噪音衡量系数、允许压差

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												

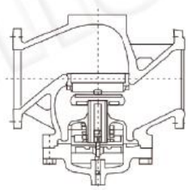
工作原理

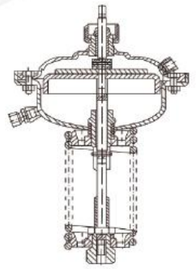
工艺介质沿箭头所指方向流经控制阀，借助于导压管(4)将阀前压力P1传输到指挥器，依靠于设定的调节阀螺钉(15)的调整，指挥器内产生一个相应的操作压力Ps.阀后作用调压阀，操作压力Ps作用于执行机构上膜室，设定压力(阀后压)P2作用下膜室，并与指挥器反馈信号口相连。当设定压力P2上升指挥器内弹簧(13)压缩量加大，指挥器阀芯(12)向关闭方向(向下)移动，Ps之下降，这样，执行机构 下膜室内P2增大，上膜室内Ps减少，导致调节机构阀芯关闭方向移动，从而降低P2，直至恢复为原设定值。当P2下降时，作用方向与上述相反。
当现场设定阀后(或阀前)压力时，可通过调节螺钉(15)与针阀(16)来设定。

▶ The 80D12Y、80D12R pilot-operated (after valve) pressure control valve



DN15~125





DN150~250

Structural figure

1	Body	5	Seat	3	Stem	4	Before-valve pressure P1 pipe
5	Balanced bellows	6	Travel indicator	7	Diaphragm	8	Spring
9	Operating pressure Ps pipe	10	After-valve pressure P2 pipe	11	Pilot	12	Pilot plug
13	Spring	14	Bellows	15	Adjusting screw	16	Adjustable needle 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

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												

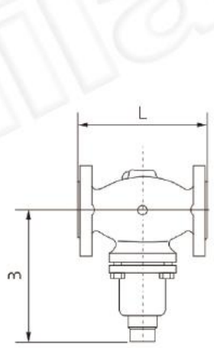
Working principle

The service medium passes through the pressure control valve along the direction indicated by the arrow, and transfers the before-valve pressure P1 to the pilot through the pressure pipe (4). Through adjustment by the adjusting screw (15) at the setting point, the corresponding operating Ps is generated in the pilot. The operating force Ps acts on the upper diaphragm chamber of the actuator, the set pressure (after-valve pressure) P2 acts on the lower diaphragm chamber and is connected with the feedback signal port of the pilot. When the set pressure P2 rises, the compression of the spring (13) in the pilot increases to make the pilot plug (12) move towards the closing direction (downwards) and Ps decreases. Thus, P2 in the lower diaphragm chamber of the actuator increases and Ps in the upper diaphragm chamber decreases to make the plug of the control valve move towards the closing direction, so as to reduce P2 until it returns to the set value.
When P2 decreases, the acting direction is reverse to the above.
When setting the after-valve (or before-valve) pressure at the site, please set the pressure through the adjusting screw (15) and needle valve (16).

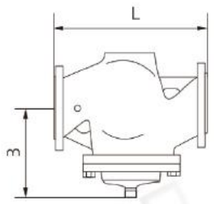
Meisonilan®
Automation Instrument

▶ 80D12Y、80D12R 指挥器操作型自力式（阀后）压力控制阀

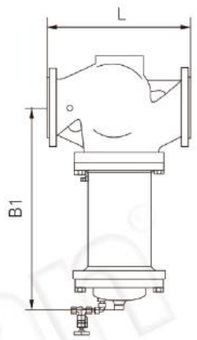
The 80D12Y、80D12R pilot-operated (after valve) pressure control valve



DN15~125



DN150~250

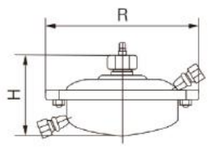


DN150~250
（带有阀体加长体）
(with body extension)

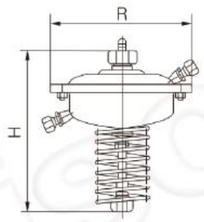
一、控制阀尺寸及重量 I. Dimensions and weight of control valve

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



DN15~125



DN150~250

有效面积(cm^2) Effective area(cm^2)				
		250		
R (mm)		263		
H (mm)	配阀门DN15~125	150	配阀门DN150~250	440
重量 Weight(Kg)		18		22