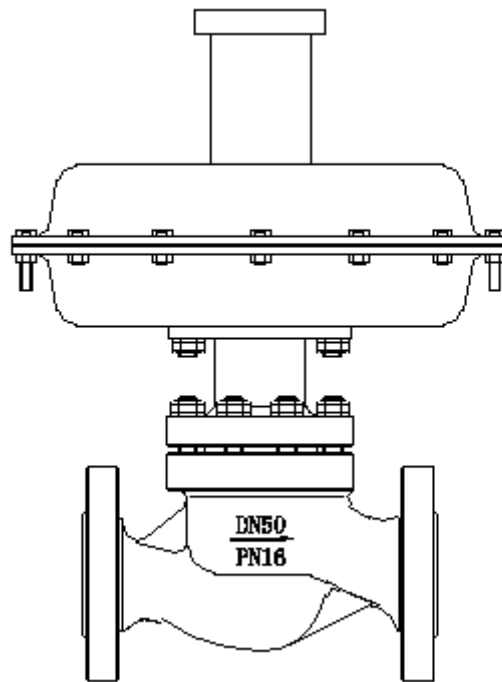


STANDARD SPECIFICATION

CHUANHU

自力式微压调节阀

Self micro pressure control valve



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概述

自力式微压阀是不需要外加能源而能自动调节一种或两种介质压差,使压差维持在恒定值,如在工业炉气体燃烧系统中,用于控制甲、乙两种燃料混合比流量调节,达到理想的燃烧条件,节省燃料及投资,也可以作为煤气、天然气、液化石油气、氨气、氮气、氧气等各种工业气体的减压、微压、差压的调节系统中。还可用于氢冷发电机组密封油系统,控制密封油与氢气间的压力差,以确保可靠密封。

当差压阀的低压端通大气即成为微压阀(见图二)

ZZC型自力式差压调节阀和ZZV型自力式微压调节阀主要特点为:

- 1、对单座微(差)压阀而言,若阀前压力 $\geq 100\text{Kpa}$ 则安装 ZZYP 型自力式进行减压至 $\leq 100\text{KPa}$,因此可用于压力特别小的场合(双座微(差)压阀不受此限制)。
- 2、执行机构元件极为灵敏,极微小的压力变化会感测出来。
- 3、压力调节极为方便,无需停止生产即可进行设定值调整。

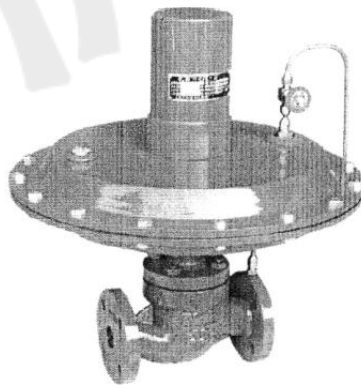
GENERAL

Self micro pressure control valve does not require external energy and can automatically adjust one or two medium pressure, the pressure maintained at a constant value, as in the industrial gas furnace combustion system, used to control A, B two kinds of fuel mixture flow regulation, achieve the ideal combustion conditions, save fuel and investment, can also be used as gas, natural gas, liquefied petroleum gas, ammonia, nitrogen, oxygen and other industrial gas decompression, micro pressure, differential pressure control system. Can also be used for sealing oil system of hydrogen cooled generator, control sealing oil and hydrogen pressure difference between, to ensure reliable sealing.

When the pressure valve through the atmosphere is a micro pressure valve (see Figure two)

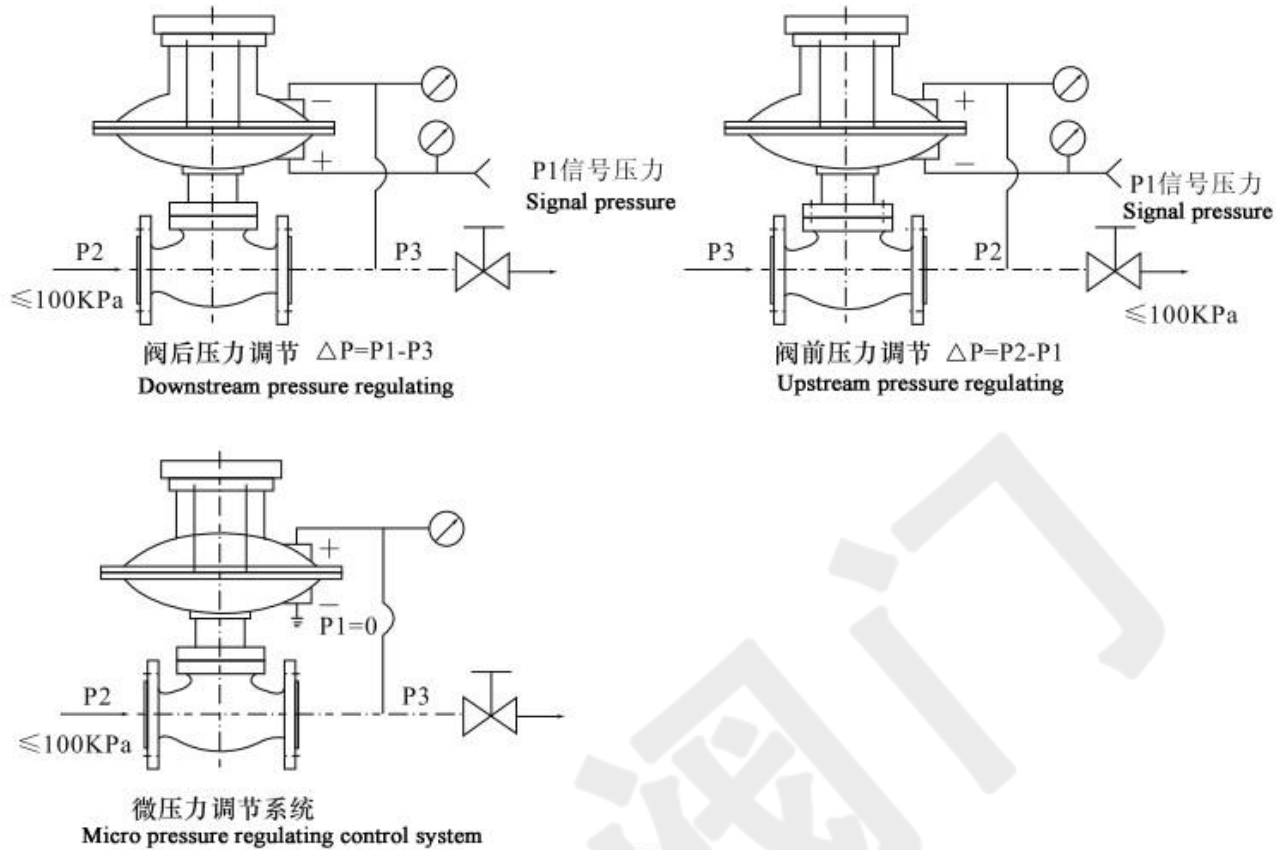
ZZC type differential pressure regulating valve and ZZV type self micro pressure control valve for the main characteristics:

- 1, For single seat micro pressure valve, if the upstream pressure $\geq 100\text{Kpa}$ install ZZYP self operated pressure to $\leq 100\text{KPa}$, so it can be used in pressure particularly small occasions (two seater micro pressure valve is not affected by this restriction).
- 2, Actuator components are extremely sensitive to pressure changes, tiny sense out.
- 3, Pressure adjustment is very convenient, without stopping production can be set value adjustments.



图一 自力式微压阀外形图

Figure 1 Self micro pressure control valve outline drawing



● 主要技术参数和性能指标 (表一)

THE MAIN TECHNICAL PARAMETERS AND PERFORMANCE INDICATORS(TABLE 1)

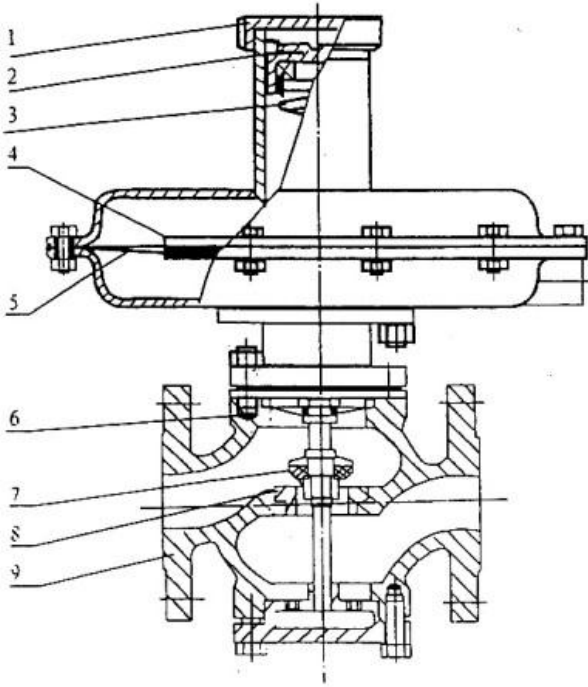
公称口径 DN(mm) Body size		20	25	32	40	50	65	80	100	150	200	250	
额定流量系数 Kv Rated flow KV	ZZCP/ZZVP	8	11	20	32	50	80	100	160	400	630	750	
	ZZCN					53	83						
额定行程(mm) Rated stroke		6	8		10		15		20	26	28		
公称压力 (MPa) Body ratings		PN0.10、PN1.0、PN1.6、PN2.5											
差压调节范围(KPa) 一般设计范围 Differential pressure regulating range (KPa) Design range		0.5~5.5	5~10	9~14	13~19	18~24	22~28	26~33	31~38	36~44	42~51	49~58	56~66
		64~78	76~90	88~100									
介质温度(°C) Medium temperature		≤80											
调节精度(%) Regulation accuracy		≤10											
允许泄漏量(l/h) Allowable leakage (l/h)	ZZCP/ZZVP	硬密封 10 ⁻⁴ ×阀额定容量(IV级) (GB/T4213-92) 软密封: VI级 Hard seal 10 ⁻⁴ × valve rated capacity (IV) (GB/T4213-92) soft sealing: class VI											
	ZZCN	5×10 ⁻⁴ ×阀额定容量(II级) (GB/T4213-92) 5 × 10 ⁻⁴ × valve rated capacity (II) (GB/T4213-92)											

注: 1、ZZCP/ZZVP 公称压力为 1.0MPa, ZZCN 为 1.6MPa

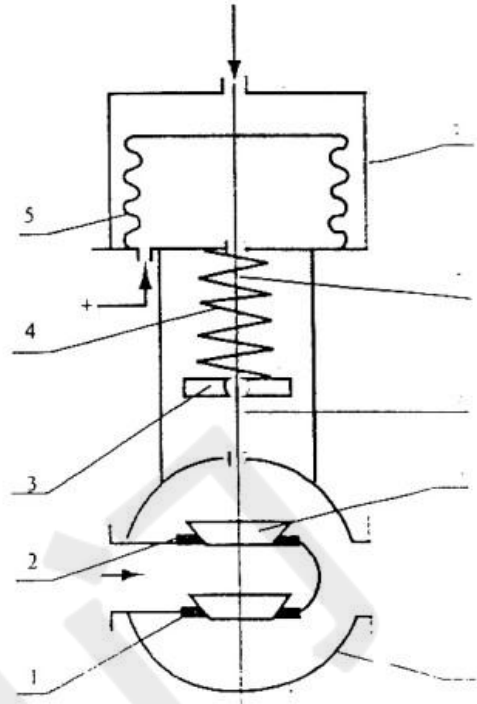
2、ZZCN 差压调节范围为 36~44, 42~51, 49~58, 56~66, 64~78, 76~90, 88~100KPa.

Note:1. ZZCP/ZZVP nominal pressure 1.0MPa, ZZCN for 1.6MPa

2, ZZCN differential pressure regulating range is 36 ~ 44, 42 ~ 51, 49 ~ 58, 56 ~ 66, 64 ~ 78, 76 ~ 90, 88 ~ 100KPa.



图三 自力式差(微)压调节阀
Figure 3 Self micro pressure control valve



图四 ZZCN自力式差(微)压调节阀
Figure 4 ZZCN Self micro pressure control valve

表二 Table 2

对图三而言 Figure 3

序号 NO	名称 Name	材料 Material
1	封盖 capping	2Cr13
2	弹簧座 spring seat	45
3	弹簧 spring	60Si2Mn
4	托盘 tray	1Cr18Ni9Ti
5	膜片 diaphragm	丁腈橡胶 Nitrile butadiene rubber
6	小膜片 Small diaphragm	耐油橡胶 Oil resistant rubber
7	阀芯 plug	PTFE
8	阀座 seat	1Cr18Ni9Ti
9	阀体 body	ZG230-450 ZG1Cr18Ni9Ti

对图四而言 Figure 4

序号 No	名称 Name	材料 Material
1	上阀座 up seat	1Cr18Ni9Ti
2	下阀座 down seat	1Cr18Ni9Ti
3	调节盘 control disc	2Cr13
4	弹簧座 spring seat	45
5	波纹管 Bellow	1Cr18Ni9Ti
6	执行机构外腔 Actuator external	Q235
7	推杆 push rod	2Cr13
8	阀杆 stem	1Cr18Ni9Ti
9	阀芯 plug	1Cr18Ni9Ti
10	阀体 body	ZG230-450

差(微)压阀调节范围的确定
 差(微)压调节范围的分段, 见表一。控制范围(控制点)应选取在中间期附近。

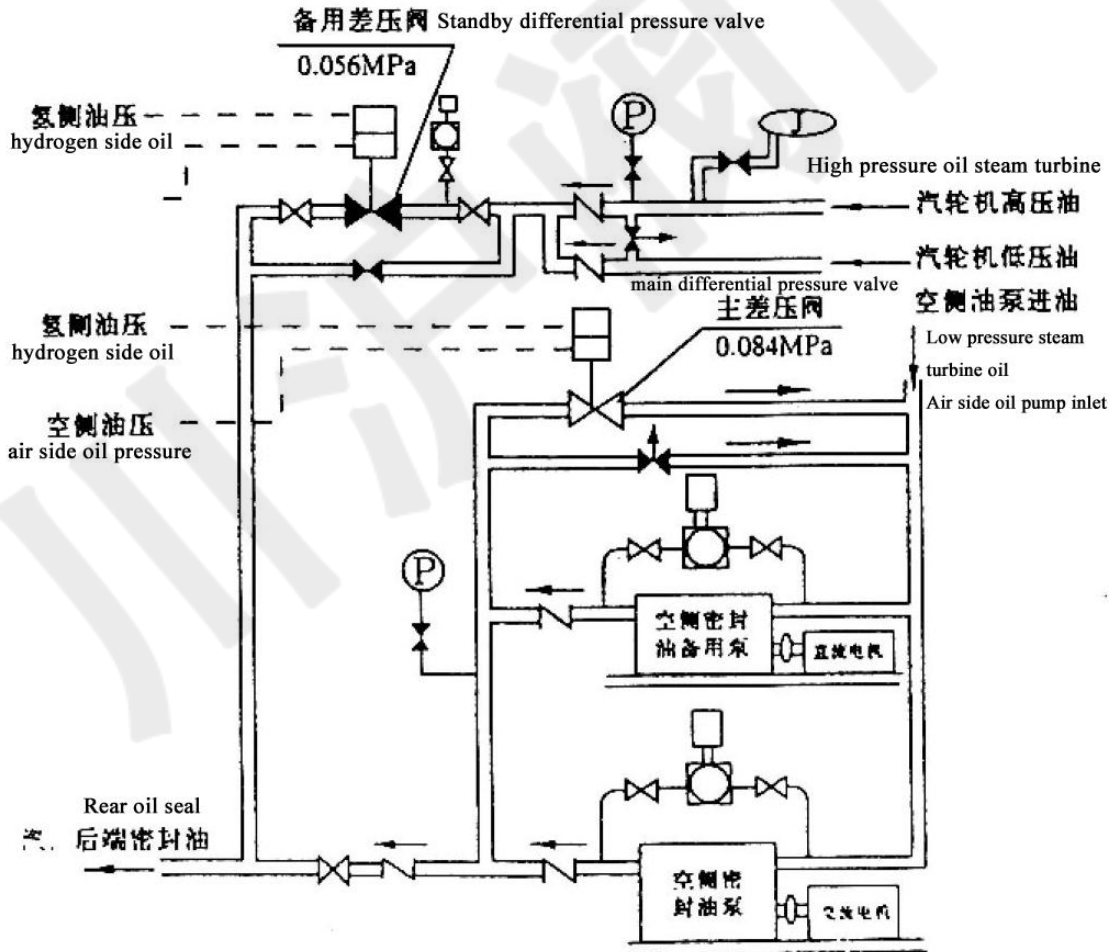
整机作用方式的确定
 差(微)压调节有 B 型 K 型两种。B 型阀阀芯初始位置常开, 差(微)压增大时阀开度减少甚至闭合 K 型阀阀芯初始位置常闭, 差(微)压增大时阀开度增大。

- 应用举例
 A、氢冷发电机组密封油系统
 B、风机加热系统循环风量控制
 C、两种气体流量的配比控制
 D、泵旁路调节

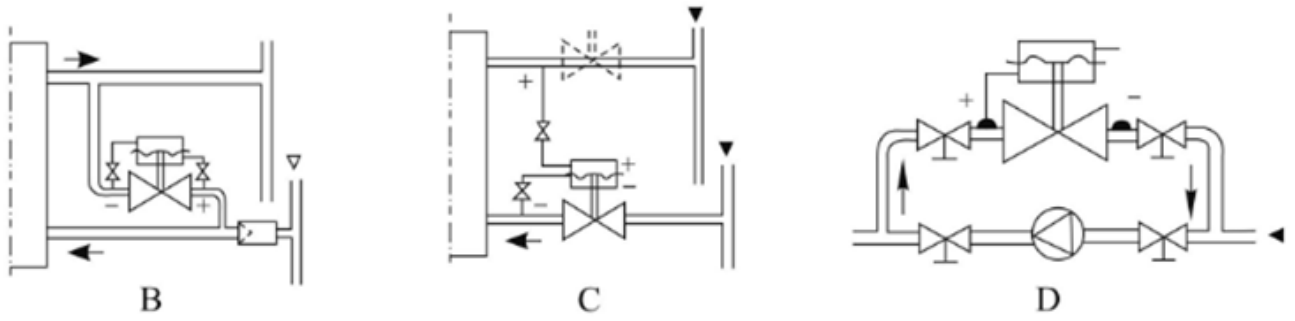
Micro pressure control valve adjusting range
 Micro pressure control valve regulation range, see table 1.
 Control (control point) should be chosen in the intermediate period near.

Determine the mode of action.
 Differential pressure regulator (micro) has B、K type. Position B type valve spool initial opening, micro pressure increases when the valve opening to reduce or even position closed type K valve spool initial normally closed, micro pressure valve opening degree increase.

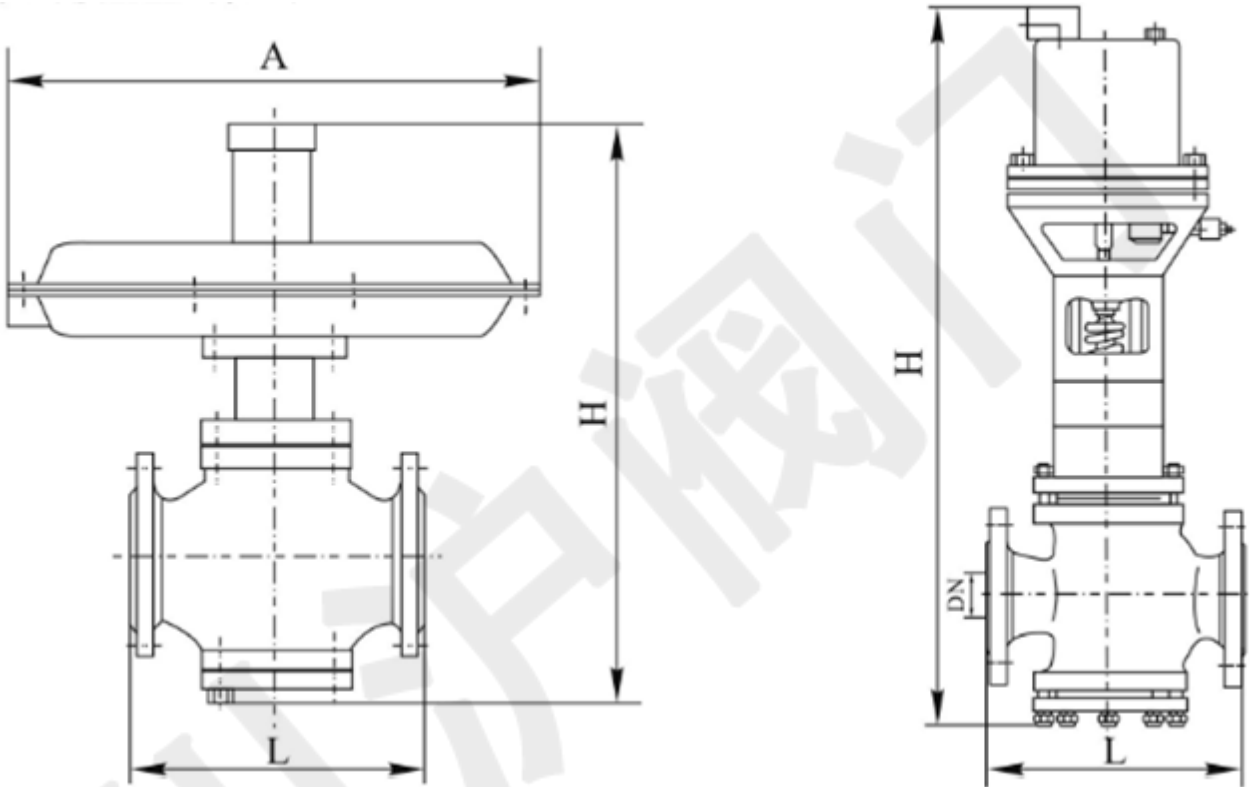
- Application examples
 A, Sealing oil system of hydrogen cooled generator
 B, Air flow control of heating system
 C, Two kinds of gas flow ratio control
 D, Pump by-pass regulating



A



● 外形尺寸 (表三) DIMENSIONS (TABLE 3)



DN	20	25	32	40	50	65	80	100	150	200	250	
A	308	394	308	394	308	394	394	394	290/394	290/394	295/394	
H	ZZCP/ZZVP	376	465	365	445	445	490	490	510	800	850	1000
	ZZCN					536	536					
L	ZZCP/ZZVP	150	160	180	200	230	290	310	350	451	600	622
	ZZVN					222	222					
导压管螺纹接头 Threaded pipe fitting	M16×1.5											

型号编制说明

ZZCP-10B ZZCP-10K ZZCN

Z: 执行器大类; Z: 自力式系列; C: 差压阀; P: 单座; 10: PN1.0MPa、16: PN1.6MPa

B: 差压增加时阀关闭, K: 差压增加时阀开启.

N: 双座

ZZVP-10B ZZVP-10K ZZVN-10K ZZVN-10B

V: 微压阀, K、B 其控制方式同 ZZYP 型自力式产品

B: 阀后压力增加时阀关闭

K: 阀前压力增加时阀开启

N: 双座

Description - Model Establishment

ZZCP-10B ZZCP-10K ZZCN

Z: actuator ; Z: self operated series; C: micro pressure valve; P: single seat; 10:PN1.0MPa, 16:PN1.6MPa

B: differential pressure increases, valve close, K: differential pressure increases, valve open.

N: two seat

ZZVP-10B ZZVP-10K ZZVN-10K ZZVN-10B

V: micro pressure valve, K, B control method with ZZYP operated products

B: close the valve when downstream pressure increasing

K: open the valve when upstream pressure increasing

N: two seat

订货须知

请提供详细介质参数(阀前后压力、温度、状态)、介质名称、阀公称压力、公称通径、调节系统详图(系统控制较复杂时)

Ordering instructions

Please provide details of the medium parameters (upstream or downstream pressure , temperature, state), medium name, valve nominal pressure, nominal diameter, regulating system in detail (system control more complex)



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