



# A900 Automatic Control Valve

The A900 series of automatic control valves are Basic Valve to provide hydraulically driven solutions to pressure, flow and level control applications.



## Features:

- Top and bottom guided stem and diaphragm assembly for long life and reliable.
- All iron components are fusion epoxy bonded for corrosion resistance.
- Easy maintenance without removal from the main line.
- Nylon reinforced diaphragm for long term service.
- Drip tight shut off.
- Globe design for superior control characteristics.
- Ductile iron bodies for higher strength and durability.
- Corrosion resistant brass seat and stainless steel trim.
- Various pilots and accessories available for configuration into many different applications.

## General Application:

For pressure, flow and level control in water applications.

## Technical Data:

Size Range: DN50~DN300mm

Pressure Ratings: 1.0Mpa; 1.6Mpa

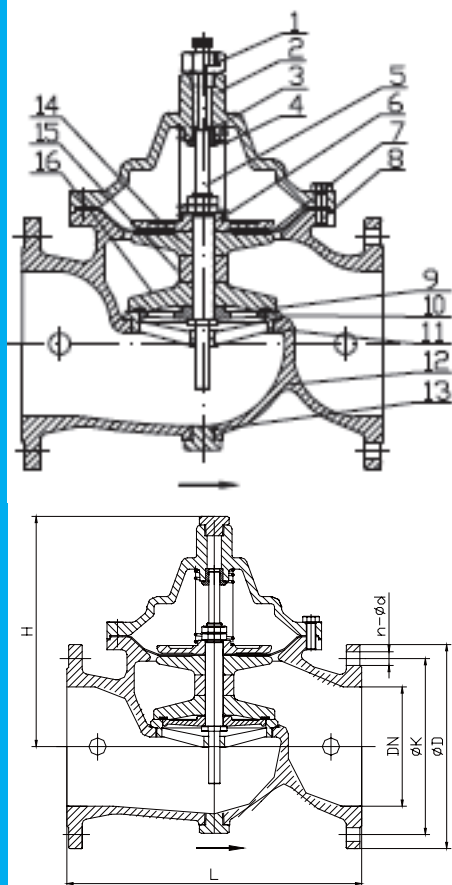
Working Temperature: -10°C- 80°C

Suitable Media: Water

End connection: PN 10/ PN 16

Consult Factory for other applications

## A900-Main Valve



## Parts List

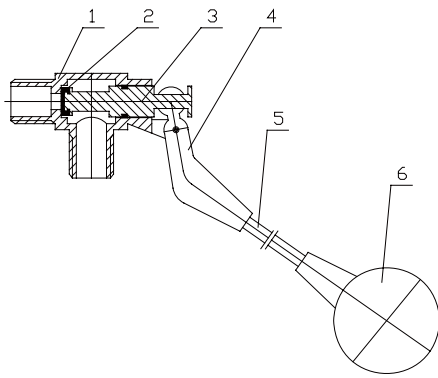
No.	Description	Material	Standard
1	Plug	Brass	CZ 122
2	Bonnet	Ductile Iron	EN JS1040
3	Guide	Brass	CZ122
4	Spring	Stainless Steel	AISI 304
5	Stem	Stainless Steel	AISI 420
6	Diaphragm Upper Plate	Ductile Iron	EN JS1040
7	Diaphragm	Rubber + Nylon	EPDM + NF
8	Hex. Bolt	Stainless Steel	A2
9	Gasket	Rubber	NBR
10	Disc Seat Retainer	Stainless Steel	AISI 304
11	Body Seat	Brass	CZ122
12	Body	Ductile Iron	EN JS1040
13	Plug	Brass	CZ 122
14	Diaphragm Lower Plate	Ductile Iron	EN JS1040
15	Spacer	Ductile Iron	EN JS1040
16	Disc	Ductile Iron	EN JS1040

## Dimension

Unit: mm

DN	Model Code	L	ØK	ØD	H	n-Ød
50	A900-0050	203	125	165	155	4-Ø19
65	A900-0065	216	145	185	172	4-Ø19
80	A900-0080	241	160	200	196	4-Ø19
100	A900-0100	292	180	220	225	8-Ø19
125	A900-0125	330	210	250	245	8-Ø19
150	A900-0150	356	240	285	290	8-Ø23
200	A900-0200	495	295	340	385	8-Ø23
250	A900-0250	622	350	405	430	12-Ø23
300	A900-0300	698	400	480	515	12-Ø23

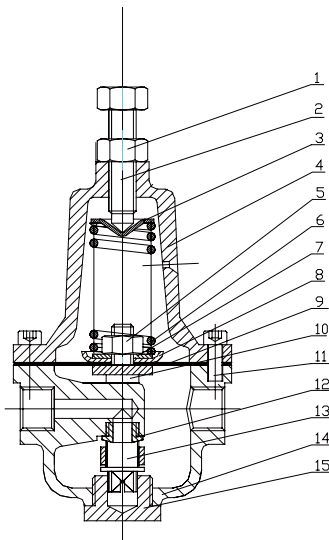
## A100-Float Pilot



### Partlist & Material

No.	Part Name	Material	Standard
1	Body	Stainless Steel	AISI 304
2	Disc	NBR	NBR
3	Stem	Stainless Steel	AISI 304
4	Arm	Stainless Steel	AISI 304
5	Rod	Stainless Steel	AISI 304
6	Float	Stainless Steel	AISI 304

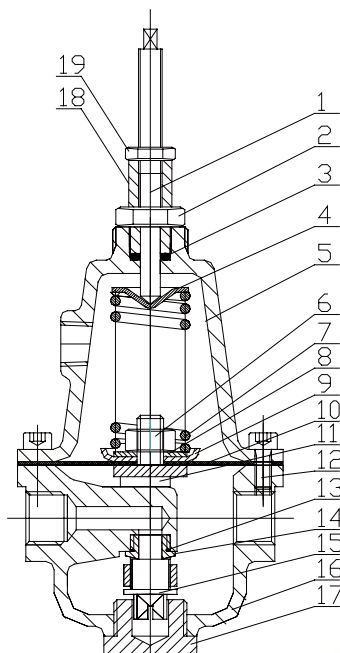
## A200-Reducing Pilot



No.	Description	Material	Standard
1	Nut	Stainless Steel	A2
2	Adjustable	Stainless Steel	A2
3	Spring Plate	Stainless Steel	AISI 420
4	Cover	Brass	CZ 122
5	Nut	Stainless Steel	AISI 410
6	Spring	Stainless Steel	AISI 304
7	Washer	Stainless Steel	AISI 410
8	Press Plate	Stainless Steel	AISI 410
9	Diaphragm	Rubber + Nylon	EPDM + NF
10	Core	Brass	CZ 122
11	Screw	Steel	Commercial
12	Seat	Stainless Steel	AISI 304
13	Disc	Brass + Rubber	CZ 122 + EPDM
14	Body	Brass	CuZn 38
15	Plug	Brass	CZ 122

## A400-Flow Control Pilot

### Partlist & Material



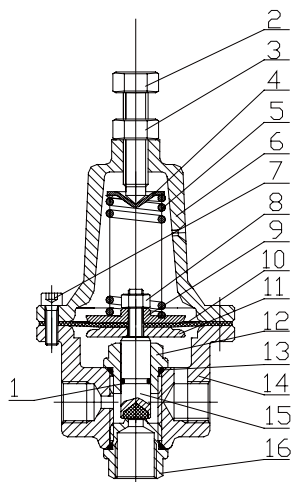
Connection: ISO-Rc3/8



No.	Description	Material	Standard
1	O-Ring	Rubber	NBR
2	Nut	Stainless Steel	A2
3	Modulating Bolt	Stainless Steel	AISI 304
4	Spring Plate	Stainless Steel	AISI 420
5	Cover	Brass	CZ 122
6	Nut	Stainless Steel	A2
7	Spring	Steel	Commercial
8	Washer	Stainless Steel	A2
9	Press Plate	Stainless Steel	AISI 420
10	Diaphragm	Rubber + Nylon	EPDM + NF
11	Core	Stainless Steel	AISI 304
12	Bolt	Stainless Steel	A2
13	O-Ring	Rubber	NBR
14	Seat	Stainless Steel	AISI 304
15	Disc	Brass + Rubber	CZ 122 + EPDM
16	Body	Brass	CZ 122
17	Plug	Brass	CZ 122
18	Modulating Seat	Brass	CZ 122
19	Nut	Stainless Steel	AISI 304

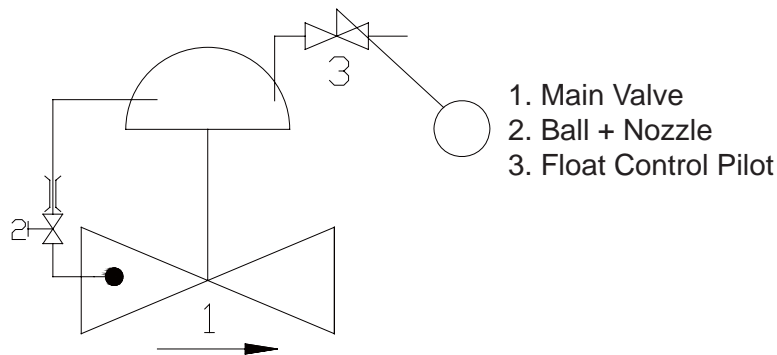
## A500-Relief/Sustaining Pilot

### Partlist & Material



No.	Description	Material	Standard
1	O-Ring	Rubber	NBR
2	Modulating Bolt	Stainless Steel	A2
3	Nut	Stainless Steel	A2
4	Spring Plate	Stainless Steel	AISI 420
5	Spring	Stainless Steel	Commercial
6	Cover	Brass	CZ 122
7	Inner Hex. Nut	Stainless Steel	A2
8	Nut	Stainless Steel	A2
9	Upper Plate	Stainless Steel	A2
10	Diaphragm	Rubber + Nylon	EPDM + NF
11	Lower Plate	Stainless Steel	A2
12	Conductor	Brass	CZ 122
13	O-Ring	Rubber	NBR
14	Body	Brass	CZ 122
15	Disc	Stainless Steel	AISI 304 + EPDM
16	Connector	Brass	CZ 122

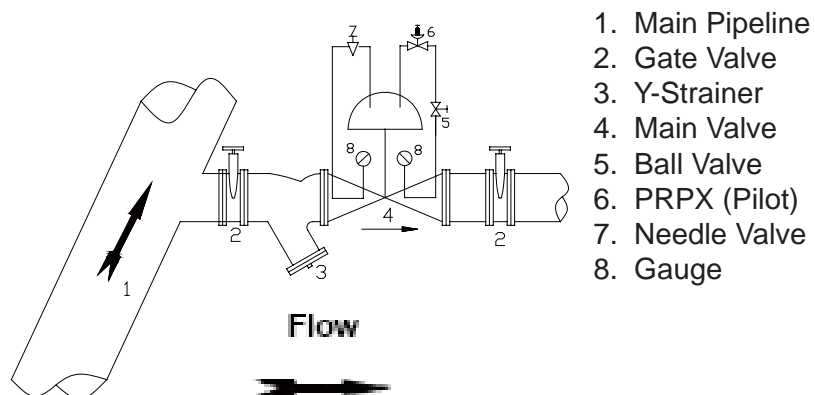
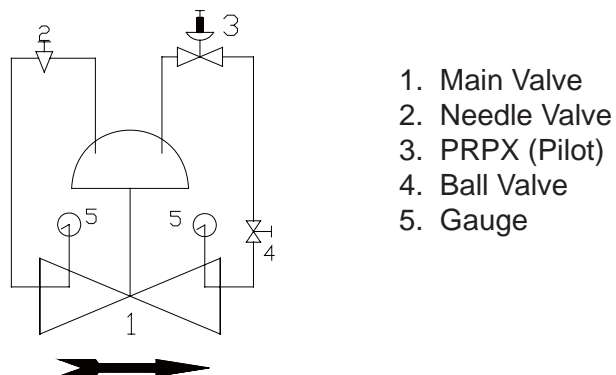
## A100 Remote Float Control Valve Assembly DWG



### Function:

1. when the water level reaches high water level, the float pilot valve will shut off and close the main valve.
2. when the water level decrease down below the float level, if the inlet pressure reaches the high water level, the float valve will start to flow and open the main valve.
3. The float pilot valve can be installed together with the main valve or independently at the high water level as a remote float control valve.

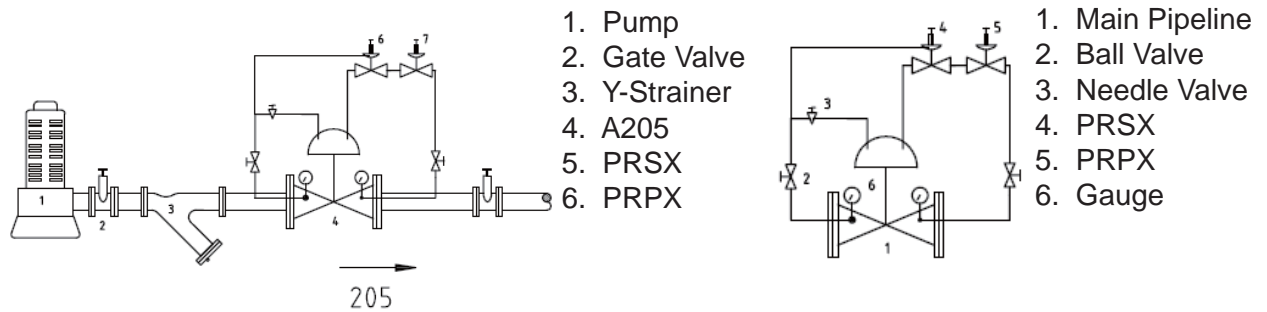
## A200 Pressure Reducing Valve Assembly DWG



### Function:

1. Pressure reducing valve being installed at a higher inlet pressure and flow down to a lower elevation area, it can reduce the inlet pressure to a lower setting pressure, when the outlet pressure over the setting pressure, the pilot will close the main valve gradually, and will open the main valve if the outlet pressure lower than the setting pressure.
2. The outlet pressure keeps constant setting pressure regardless of the upstream pressure or the downstream flow, and the outlet pressure will come to balance as the setting pressure.

## A205 Pressure Relief/Sustaining Valve Assembly DWG

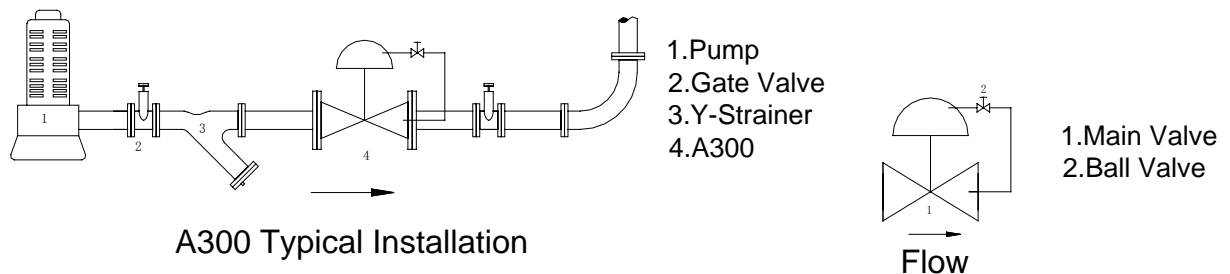


### Function:

1. Put A205 in the pipeline, when inlet pressure exceeds the setting pressure, the pilot will open the main valve, and let water pass through.
2. When inlet pressure lowers the setting pressure, the main valve will close automatically.
3. When the main valve opens, if the outlet pressure in downstream distribution area exceeds the setting pressure, the main valve will close gradually, until the pressure equal.
4. When the main valve opens, if the outlet pressure in downstream distribution area lowers the setting pressure, the main valve will open automatically.

## A300-Slow Control Check Valve Assembly DWG

### Assembly DWG

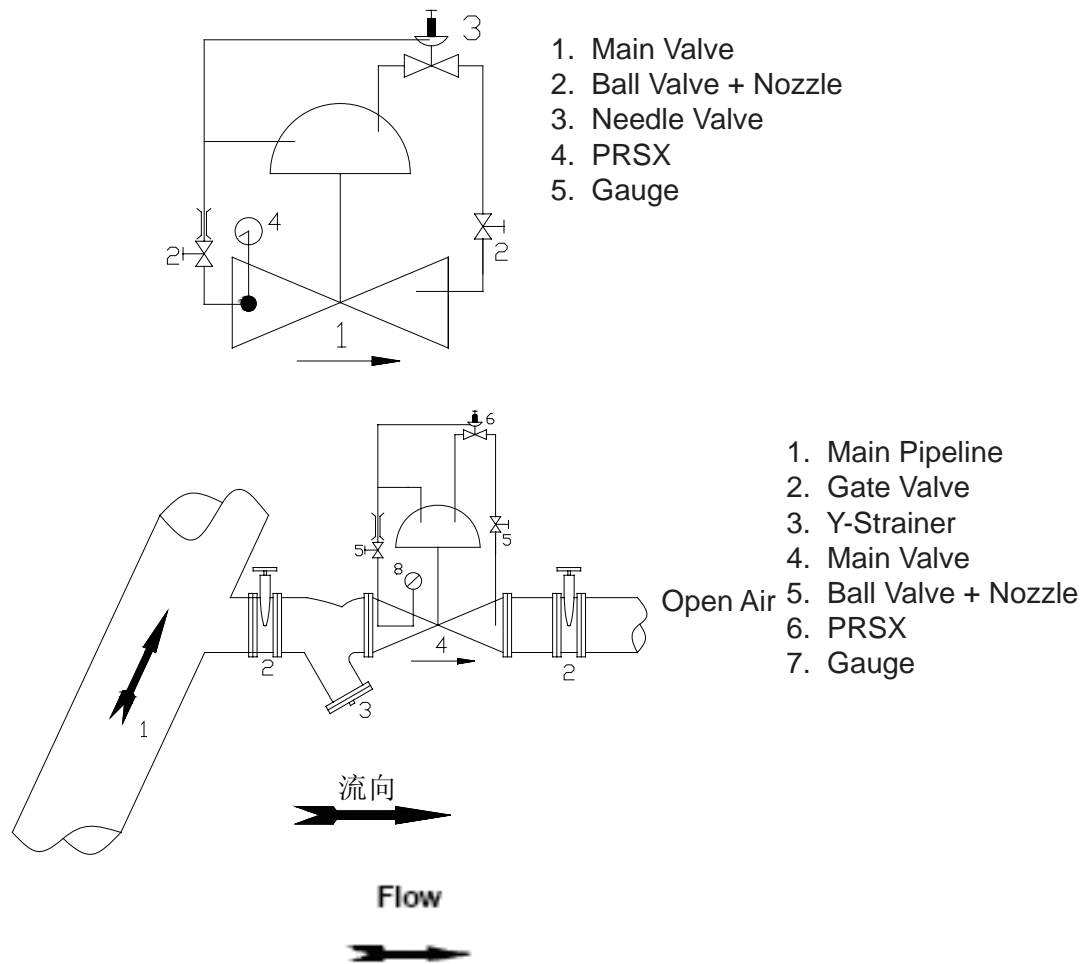


### Function:

1. When the pump start up, the main valve will open immediately.
2. When the pump shut down or power failure, the main valve will close gradually, and prevent water hammer and water slamming.

## A400-Please Consult Factory

## A500 Pressure Relief/Sustaining Valve Assembly DWG



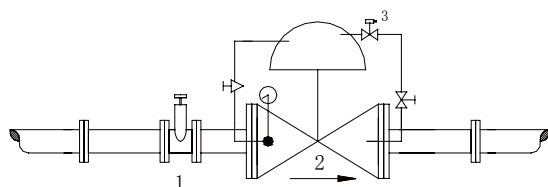
### Relief function:

1. When the inlet pressure exceeds the setting pressure, the pilot will open the main valve, and exhaust the system pressure.
2. When the system pressure lower than setting pressure, the main valve will close gradually.

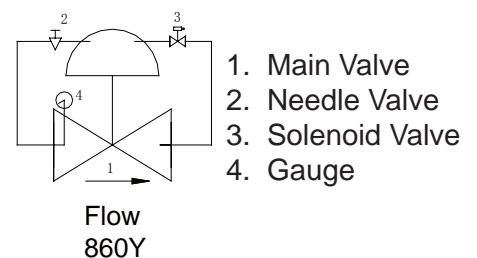
### Sustaining function:

1. When system pressure over the setting pressure the main valve will open and flow thru to the downstream distribution area.
2. When the inlet pressure lower than the setting pressure, the main valve will close gradually.

## A600-Electrical Control Valve



A600 Typical Installation



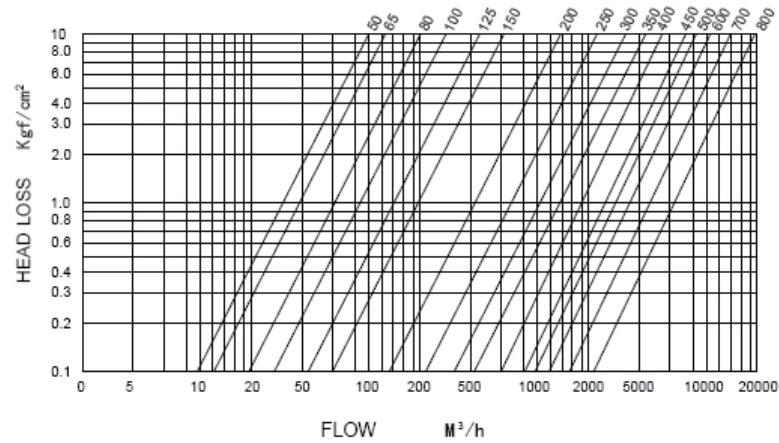
### Function:

1. When the solenoid valve energized, the main valve will open.
2. When the solenoid valve de-energized, the main valve will close.

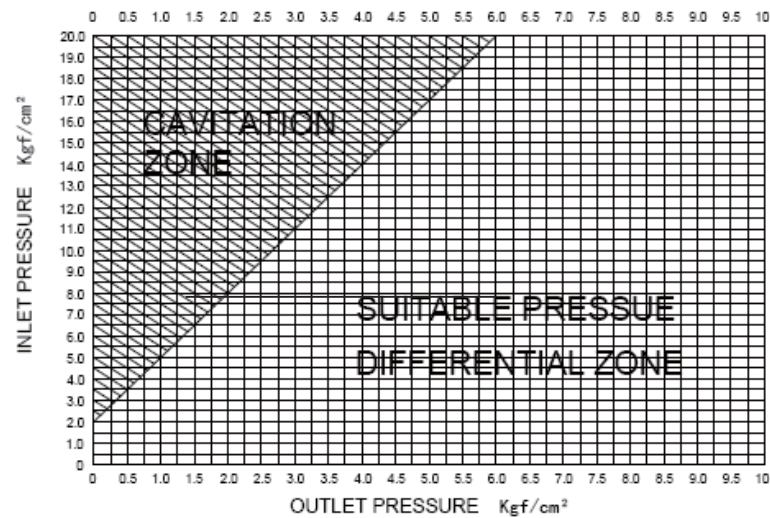


## Head Loss Curve

### Head Loss Curve(Fully Open)



## Cavitation



## Ordering Code

AXXX-0200-16-YYY

### Model:

- A100: Remote Float Valve
- A200: Pressure Reducing Valve
- A300: Slow Control Check Valve
- A400: Flow Control Valve
- A500: Pressure Relief Valve
- A600: Electric Control Valve
- A900: Main Valve

YYY: Special Code  
Please Consult Factory

### Pressure Rating:

- 10: PN10
- 16: PN16
- 25: PN25

### Size:

0080: 80 mm