WATER PRESSURE REDUCING VALVES FOR FIRE PROTECTTION

AS-A/Y-20A & AS-P/Y-20A

I. VALVE DESCRIPTION

Double flanged Pressure reducing valve, with double chamber

Available in 2 types:

1. Diaphragmatic actuated AS-A/Y-20A for PN10-PN16
2. Piston type AS-P/Y-20A for PN10-PN40

II. OPERATION – USAGE

Valve AS-A/Y-20A reduces the upstream pressure and sustains a constant preset downstream pressure, even if there is no change of the flow or there is no flow at the inlet of the valve.

The valve prevents equation between upstream and downstream pressure, even if the flow rate is eliminated.

III. REGULATION INSTRUCTIONS

A. Manual Operation:

1. Valve (5) closed – Valve (3) open – Pressure reducing valve closed
2. Valve (5) open – Valve (3) closed – Pressure reducing valve open

B. Automatic operation:

When valves no. (3) & (5) are open

- The ventilation is done automatically at the operation point.

REGULATION OF PILOT No. 4

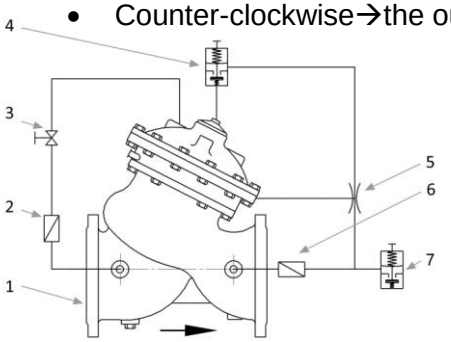
Before regulating the pilot no. 4 the pilot no. 7 must be totally closed.

- Turning the screw of pilot (4)
  - Clockwise → the upstream pressure is increased
  - Counter- clockwise→ the downstream pressure is decreased

Tighten the locking nut.

Needle valve is used to regulate the outlet flow rate and consequently to eliminate the vibrations of the main valve at the lower settings of downstream pressure.

- Turning the screw of the needle valve
  - clockwise→ the outlet flow rate is decreased
  - Counter-clockwise→the outlet flow rate is increased



1. Valve body AS-A/Y-20A
2. Filter
3. mini valve (inlet)
4. Pressure reducing pilot
5. Needle valve
6. Filter
7. safety pilot 20A

REGULATION OF PILOT 8

Turn the screw of the pilot (7) slowly counter –clockwise until the pilot released the water. Then turn the screw clockwise until the water flow from the pilot stops completely.

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A.INSTALLATION INSTRUCTIONS

- Before installing the valve, make sure that the pipeline is clean, the valve and all control fittings are in place and nothing is missing.
- Check the actual operation conditions: pressure, flow rate, etc and make sure the valve specifications comply with the actual network conditions.
- The valve regulation must be based on the actual operation conditions
- The arrow marked on the valve body shows the flow direction
- Recommended valve position is horizontal.
- MAKE SURE THAT ALL NECESSARY AIR VALVES AND ANTI HAMMER SHOCK VALVES ARE INSTALLED IN THE NETWORK
- Use two isolating gate valves at the outlet and inlet of the valve for best isolation, maintenance and testing of the valve
- It is necessary to make sure the water is clean and adequately filtered. You could use Y strainer before the valve
- Install one dismantling joint in case the valve should be removed from the network.

B. RECOMMENDED FITTINGS FOR BETTER OPERATION OF THE VALVE

- Filter “Y” before the valve.
- Valve position indicator
- Brass tubes on the external relay system

C. MAINTENANCE

- Before operation check the valve, the installation and the pipeline in general
- Clean the filter
- Check the valve control accessories (pilots, mini valves, pipes, nipples etc.) if they are in good condition and damage free
- Check upstream pressure gauge if it reflects the upstream pressure
- Check downstream pressure gauge if it reflects the adjusted pressure level

D. INTERRUPTING OPERATION FOR THE WINTER

- Open the valve at fully open position
- Wait until the main line is drained
- Loose the fittings and remove the plugs so that the valve and all control accessories are drained.

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GEMAK ASPRODUCTS

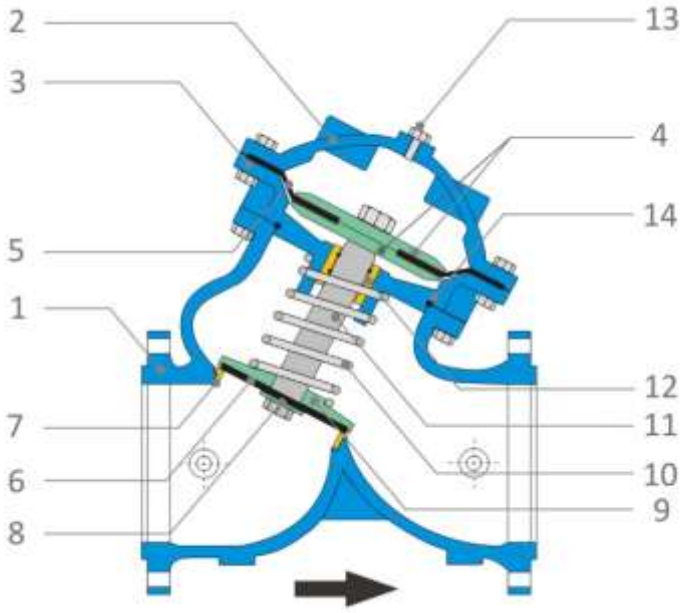
AS-A/Y-05 , AS-R/Y-05
HYDRAULIC DIAPHRAGMATIC DOUBLE CHAMBER VALVE
Y CONFIRGUATION

TECHNICAL FEATURES

- ***AS-A/Y-05 double flanged EN1092-2:*** *DN50 up to DN450*
- ***AS-R/Y-05 female threaded BSP :*** *1 ½ ", 2"*

NOMINAL PRESSURE: *PN10, PN16*
MANUFACTURING NORMS: *EN 1074-1, EN1074-5*
WORKING TEMPERATURE: *-10°C up to +80°C*
TESTS : *Every valve is tested in compliance with the norms EN 12266-1, EN1074-1 & EN1074-5. Leaktightness test 1.5 x PN & Seat Test at minimum pressure 0,05xPN and maximum 1,1 x PN.*
COATING: *The ductile iron parts are sandblasted according to SAE2 / SA 2,5 and epoxy paint is electrostatically applied at thickness at least 250 μm internally and externally. Coating procedure follows the norm EN14901 for quality and anti corrosion protection. The paint is blue RAL 5015 approved for potable water.*

VALVE SECTION - MATERIALS



No.	VALVE PART	MATERIAL
1.	**Body:**	Ductile iron GGG40/50 EN 1563
2.	**Cover :**	Ductile iron GGG40/50 EN 1563
3.	**Actuator base:**	Ductile iron GGG40/50 EN 1563
4.	**Retaining discs:**	Ductile iron GGG40/50 EN 1563
5.	**Diaphragm :**	EPDM / NEOPRENE nylon reinforced
6.	**Rubber Sealing disc :**	EPDM
7.	**Metal seat :**	Bronze RG5
8.	**Metal washer :**	Ductile iron GGG40/50 EN 1563
9.	**Sealing Disc:**	Ductile iron GGG40/50 EN 1563
10.	**Spring:**	Stainless steel EN10270
11.	**Shaft :**	Stainless steel EN10088-3
12.	**Bearing :**	Brass MS58
13.	**Plug:**	Brass MS58
14.	**O-ring:**	EPDM
	External relay system	Rilsan / Brass MS58 upon request
	Pilots:	Brass MS58
	Sealing rubbers :	EPDM
	Screws-Nuts :	INOX AISI 304

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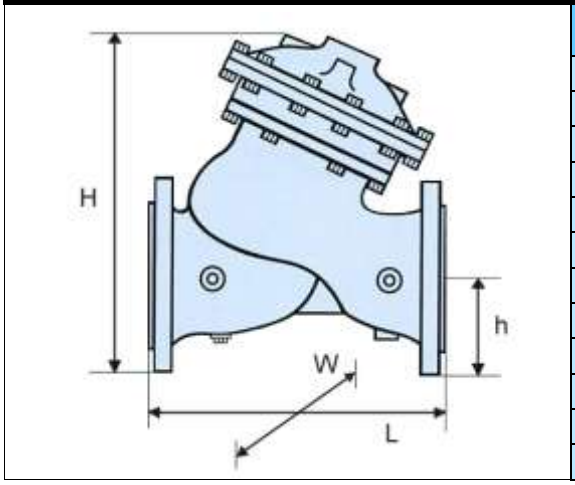
AS-A/Y-05
"Y" CONFIGURATION VALVES - FLANGED

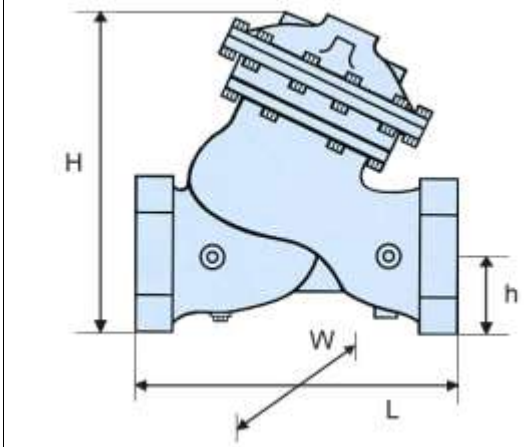
ΔΙΑΣΤΑΣΕΙΣ ΣΕ mm / DIMENSIONS IN mm



DN	h	L	H	W	Βάρος/Weight (kgr)
50	82.5	205	165	165	12
65	92.5	205	165	185	14.5
80	100	260	230	200	24.5
100	110	325	265	220	42
125	125	325	265	220	45
150	146	420	355	320	84
200	170	500	415	390	156
250	202.5	605	540	480	230
300	230	725	635	550	400
350	260	725	635	550	410
400	290	1010	860	880	826
450	320	1010	860	880	836

AS-R/Y-05
"Y" CONFIGURATION VALVES - THREADED

DIMENSIONS IN mm



Inch	h	L	H	W	Weight (kgr)
1 ½"	39.25	155	210	125	8
2"	42	155	210	125	10

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