

## YDF-2F, 20F Type Differential Pressure & Flow Control Valve

This valve performs the two control functions of restricting flow and maintaining a differential pressure of supply and return lines. It can be installed in a supply line or return line according to its purpose of use.

### Features

- High-performing differential pressure flow control valve that is installed in a supply or return line of a load device to control the differential pressure and flow comprehensively.
- In addition to differential pressure control, it offers a wide flow control range, from small to large flows, thanks to an embedded equal % cone for flow control.
- The diaphragm is separated from the body and thus is not affected by temperature. Since it is a perfect balance type, the set differential pressure does not change due to pressure fluctuations.
- Has a solid structure, and thus offers an outstanding level of durability.
- A diaphragm method enables to be installed horizontally or vertically.
- The opening percentage of the valve can be easily checked, thanks to the attached indicator.
- Leakage from packings can be visually checked, enabling easy identification of the appropriate time for repair.

### Specification

Type	YDF-2F	YDF-20F
Applicable pressure	Maximum 1,0MPa	Maximum 2,0MPa
Applicable fluid	Cold / hot water	
Fluid temperature	Maximum 120°C	
Differential pressure control range	0,01~0,18MPa	
Flow control range	0,15~0,50MPa	
End connection	±5% of the constant flow rate	
Materials	Body	KS 10K RF FLANGE
	Disc, seat	GC200
	Diaphragm	SCPH2
Hydraulic test pressure	1,5MPa	3,0MPa

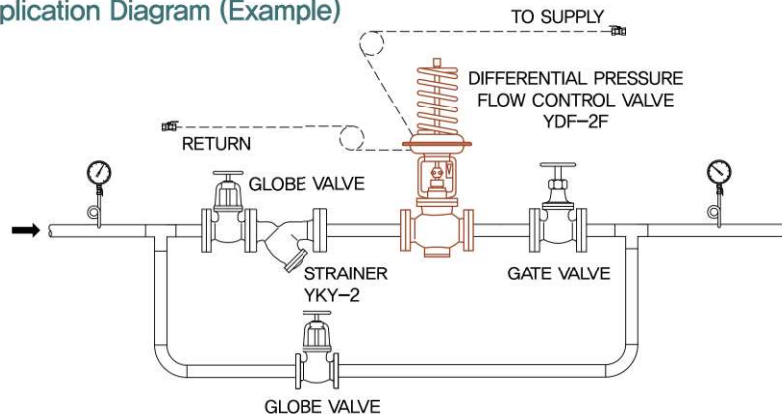
- ▶ The basic pressure regulating range is 0,02~0,15MPa
- ▶ When using the valve, install a strainer (40 Mesh or more) on the leaflet.

### Dimensions

Size	Type	YDF-2F				YDF-20F				Cv
		L	H1	H2	Weight (kg)	L	H1	H2	Weight (kg)	
25A		184	62,5	640	20	197	62,5	640	21	8
32A		180	70	650	26	180	70	650	26	12,5
40A		222	80	658	28	235	80	658	30	18
50A		254	95	670	41	267	95	670	43	43
65A		276	115	720	48	292	115	720	54	64
80A		294	120	720	56	318	120	720	65	84
100A		352	130	735	72	368	130	735	66	152
125A		400	150	775	130	400	150	775	152	200
150A		451	180	800	162	473	180	800	126,2	288

- ▶ Made-to-orders are available for valves with a size of 200 or larger.

### Application Diagram (Example)



※ Install the pressure tube on the side of the main pipe.

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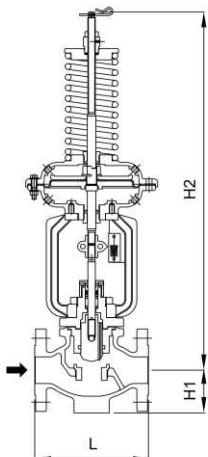


YDF-2F



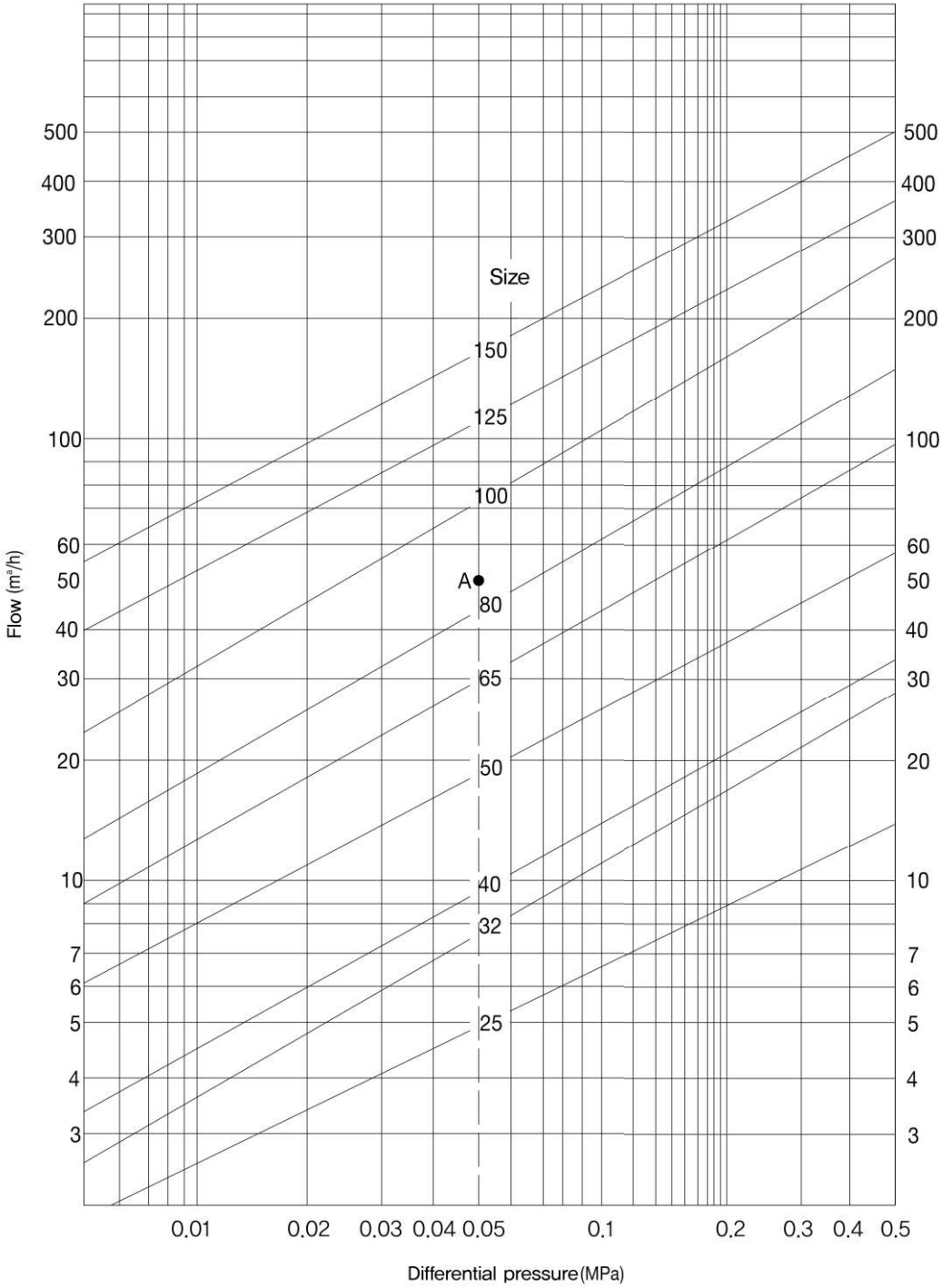
YDF-20F

### Dimensional drawing



# YDF-2F, 20F Type Differential Pressure Flow Control Valve

## Selecion of size



$$C_v = \frac{1.167 \times Q \times \sqrt{r}}{\sqrt{\Delta P}}$$

Here, Cv: Valve flow coefficient  
 Q : Flow (m³/h)  
 r : Density (Water = 1)  
 ΔP : Pressure difference between the valve's inlet and outlet(MPa)