

## YFC-2N/2NK Type Automatic Flow Control Valve (per Household)

An automatic flow control valve per household limits the maximum flow, thereby distributing an appropriate flow to each place of use. It maintains the flow balance of each place of use by automatically adjusting the flow during the instrument's constant flow rate operations, thereby stabilizing the overall system.

### Features

- Perfect Pressure-Balancing Type valve: it can be used independently from pressure changes, etc.
- Diaphragm operation method, instead of the usual cartridge method : less set flow variation.
- Variable flow control function : easy to change and adjust the set flow on the field, without disassembling.
- The employment of an optimal design for fluid flow reduces noise and vibration.
- Structure that allows a constant flow is only slightly affected by foreign substances and ensures easy disassembling and maintenance.
- Easy to remove foreign substances, thanks to an embedded strainer in the valve union.
- Easy to select a piping direction since both sides of the product are set up with unions.



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### Specification

Type		YFC-2N (per household)
Applicable fluid		Cold/hot water
Automatic differential pressure range		0.03~0.29MPa
Flow variation		±5.0% of set flow
Permissible leakage		0.01%(ANSI 616.104Class IV)
Fluid temperature		120°C below
End connection	Body	KS PT UNION, SCREW(40A, 50A)
	seat	KS PT UNION, SCREW
Material	Body	CAC303
	Disc	C3604BE
	Diaphragm	EPDM
Hydraulic test pressure		water 1.7 MPa

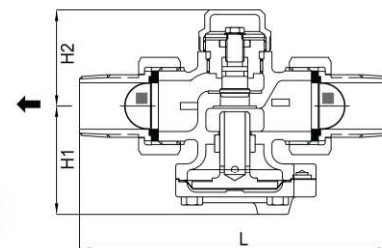
- ▶Made-to-orders for unions are available only for the inlet or outlet side.
- ▶Strainer (over 40 Mesh ) installation is required to ahead inlet when valve installing.

### Dimensions

(mm)

SIZE	L	H1	H2
15(½")	100	60	45
20(¾")	100	60	45
25(1")	112	60	45
32(1¼")	123	60	45
40(1½")	133	69	55
50(2")	165	83	60

### Dimensional drawing

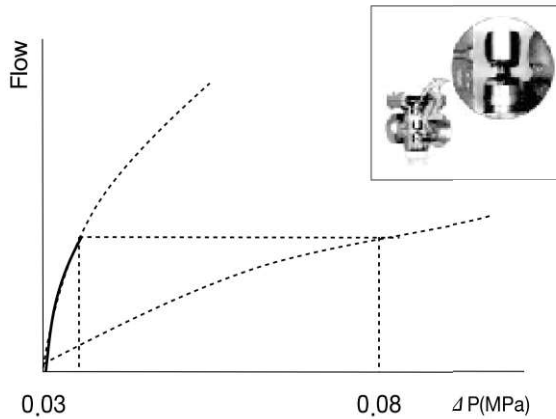


### Flow setting range

SIZE	Applicable differential pressure range	Flow setting range(lpm)
15(½")	0.03~0.08	1.5~20
20(¾")		1.5~20
25(1")		1.5~30
32(1¼")	0.03~0.29	5~30
40(1½")		10~60
50(2")		16~80

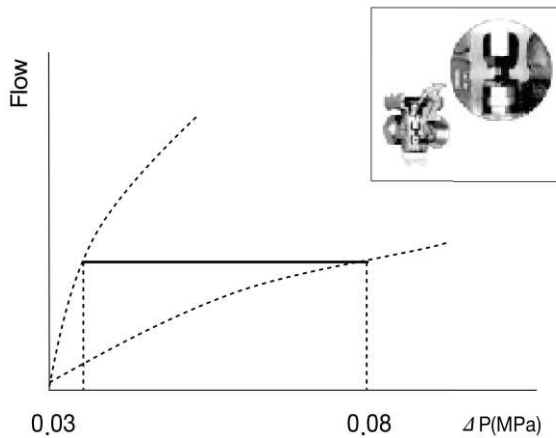
## YFC-2N Type Automatic Flow Control Valve (per Household)

Control range (Constant flow control valve for household)



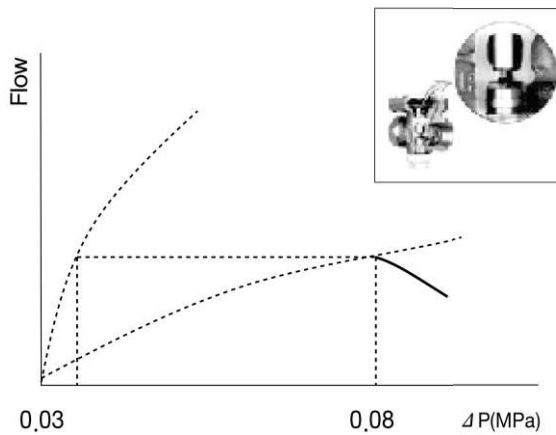
- When it is smaller than the automatic differential pressure range of an automatic flow control valve

Because the differential pressure is low, the pressure level is smaller than the pressure needed to actuate an automatic flow control valve. If actuated below the  $0.3 \text{ kgf/cm}^2$  range, the automatic flow control valve is a normal open type. This is why the flow proportionally increases to a maximum of  $0.3 \text{ kgf/cm}^2$ , which is the operating differential pressure range, according to an increase in differential pressure.



- When it is within the automatic differential pressure range of an automatic flow control valve

The differential pressure within the pipeline is within the pressure range needed to actuate an automatic flow control valve. Within the range of  $0.3 \text{ kgf/cm}^2$ , a constant flow level is maintained within  $\pm 2.5 \sim 5.0\%$  of the set flow, based on pressure balancing of the pressure regulating spring and diaphragm, according to differential pressure fluctuations.



- When it is higher than the operating differential pressure range of an automatic flow control valve

As pressure (at least  $0.08 \text{ MPa}$ ) that is higher than the operating differential pressure range is delivered to the upper part of the diaphragm, the valve slowly closes and the flow decreases according to an increase in differential pressure.