

CX-2000 Series FLOW SET VALVE

■ OUTLINE

CX-2000 FLOW SET VALVE is an automatic constant flow valve to maintain constant flow of liquids even when the pressure changes at the inlet or outlet.

Flow rate is adjustable by rotating handle with scale plate.

Newly designed bellows diaphragm guarantees stable and accurate flow control.

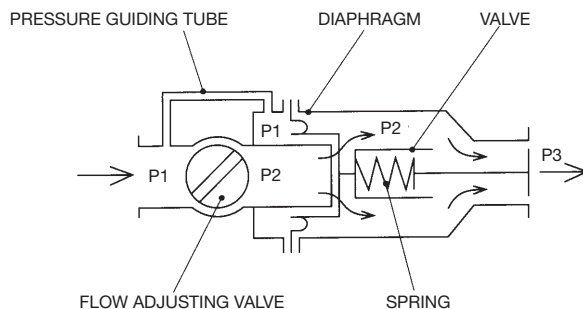
Smaller in sizes and lighter in weight compared to existing products offer easy handling and installation.



■ FEATURES

- ❑ Wide differential pressure control range
- ❑ Accurate control of flow of $\pm 5\%$
- ❑ Fluid Pressure : Max. 1MPa
Note) Do not quickly apply a differential pressure of 0.4 MPa or more.
- ❑ Fluid Temperature : Max. 80°C
- ❑ Flow setting handle with scale plate provided
- ❑ Small and compact design with bellows diaphragm
- ❑ All flow directions, i.e., horizontal and vertical, acceptable
- ❑ All metallic construction for durability for long time operation
- ❑ Coating color : Metallic silver (Body made of SUS not painted)
- ❑ Slurry is not acceptable
- ❑ Viscosity is 10mPa · s or less.

■ OPERATION PRINCIPLE



When the inlet pressure P1 increases or outlet pressure decreases, the differential pressure (P2 - P3) increases. In these circumstances, the differential pressure across the bellows diaphragm (P1 - P2) also increases and the valve which is connected to the bellows diaphragm is pressed to close the opening of flow path and decreases the flow rate. When the change of pressure acts in opposite direction, the valve returns to reverse direction to open the flow pass and increase the flow rate.

If the position of valve is stable, the following formula is applicable :

$$P1 - P2 = (W + F) / S \text{ (constant)}$$

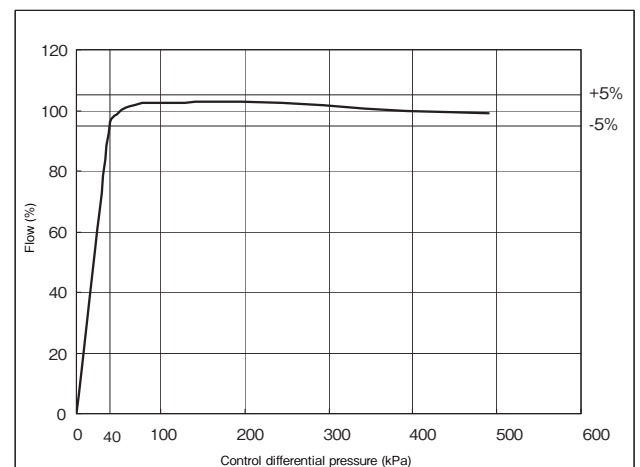
where S : Effective area of pressure detection

F : Strength of spring

W : Weight of valve in liquids

As mentioned above, the differential pressure across the valve is maintained stable and a constant flow is obtained.

Control characteristics

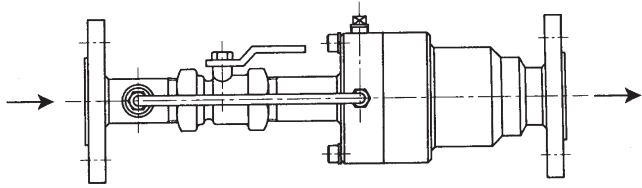


■ MODEL CODE

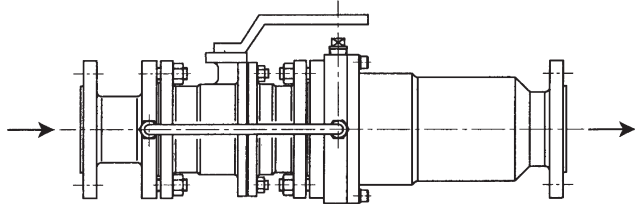
Model Code					Description
CX-2					
Function	1				For Liquid Use
	2				Flow Adjustable Type
	0				Standard Differential Pressure Type
Material Class		—	1		Material Class 1 (Steel)
		—	2		Material Class 2 (SUS304)
		—	3		Material Class 3 (SUS316)
Connection Size				0	15mm (1/2 inch)
				2	25mm (1inch)
				3	40mm (1 1/2 inch)
				4	50mm (2inch)
				6	80mm (3inch)
				7	100mm (4inch)
	Process connection				1
				2	JIS 10KRF
				3	ANSI Class 150
				4	JPI Class 150
				9	Others

■ DIMENSIONS

15~50



80, 100



■ SPECIFICATION

Meter Size	Flow Control Range (m³/h)	Control Differential Pressure (kPa)	Dimension L (mm)	Mass (Approx.)
15	0.2 to 1.2	40 to 500	350	5
25	0.5 to 4.5	40 to 500	400	8.5
40	2.0 to 10.0	40 to 500	470	13
50	4.0 to 18.0	40 to 500	500	17
80	10.0 to 40.0	60 to 500	650	50
100	10.0 to 70.0	60 to 500	800	80

■ MATERIAL

Parts Name	Material Class 1	Material Class 2	Material Class 3
Body	Carbon Steel and SUS304	SUS304	SUS316
Spring	SUS304	SUS304	SUS316
*Bellows Diaphragm	EPDM	EPDM	EPDM
Internal Parts	BRASS (C3604)	SUS304	SUS316

*Consult factory for material except for EPDM.

■ ORDERING INFORMATION

Specify the following for order or inquiry :

Fluid name	<input type="checkbox"/> Water <input type="checkbox"/> ()
Inlet press.	~ MPa
Outlet press.	~ MPa
Flow rate	Normal _____ Max. _____ Min. _____ <input type="checkbox"/> m³/h <input type="checkbox"/> ()
Fluid temp	_____ C

Connection size	<input type="checkbox"/> 15mm <input type="checkbox"/> 25mm <input type="checkbox"/> 40mm <input type="checkbox"/> 50mm <input type="checkbox"/> 80mm <input type="checkbox"/> 100mm
Connection flange	<input type="checkbox"/> JIS 10KRF <input type="checkbox"/> ()
Material class	<input type="checkbox"/> Class 1(Carbon steel) <input type="checkbox"/> Class 2(SUS304) <input type="checkbox"/> Class 3(SUS316)
Installation Direction	<input type="checkbox"/> Horizontal <input type="checkbox"/> Upward <input type="checkbox"/> Downward
Other special requirement, if any	

* Specification is subject to change without notice.

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