

Features

- Uses an X-ring seal
- High precision cracking and high repeatability
- Correspond to low pressure specifications
- Compact and light weight
- Can also be used for special fluids (Organic solvents, Vapor, etc.)

Application

- Gas analyzers, Gas mixing machines, Various gas generators, Medical instruments, Industrial furnaces, Small compressor protection circuits, Internal pressure explosion proof panels, Various pressure vessel protection, etc.

Relief Valve RA Series (Low Pressure Vent to Atmosphere Type)

Specifications	
Burst Pressure	1.62MPa
Connection Size	R1/8~R1"
Body Material	Brass / SUS316
X-ring material	Fluorine rubber Class 4 D (Standard)
Operating Temperature Range	Depending on X-ring material
Cracking Pressure	3~1080kPa
Setting Range	* The setting range for 1/8" is 3 - 970 kPa. * 3 - 29 kPa settings are optional.
Remarks	* Nickel plated brass body specification * If the setting pressure is 5 kPa or less, the attachment direction

Dimensions Table (mm)		
Connection Size (R)	A	HEX (opposite side)
1/8	25.5±2	13.0
1/4	31.0±2	17.0
3/8	33.0±2	19.0
1/2	44.8±3	26.0
3/4	52.4±3	29.0
1"	72.8±3	38.0

Type Selection Tables **R A T 2 V - 500**

Basic Type		Cracking Pressure (kPa)	
R	A	50	1000
Vent to Atmosphere Type			

Body Material		X-ring Material	
B	Brass	V	Fluorine rubber Class 4 D (Standard)
T	SUS316	D	PerFlour
		N	NBR Class 1 A
		F	Aflas®

Connection Size		Operating Temperature Range (Ref)	
1	1/8	4	1/2
2	1/4	6	3/4
3	3/8	8	1"

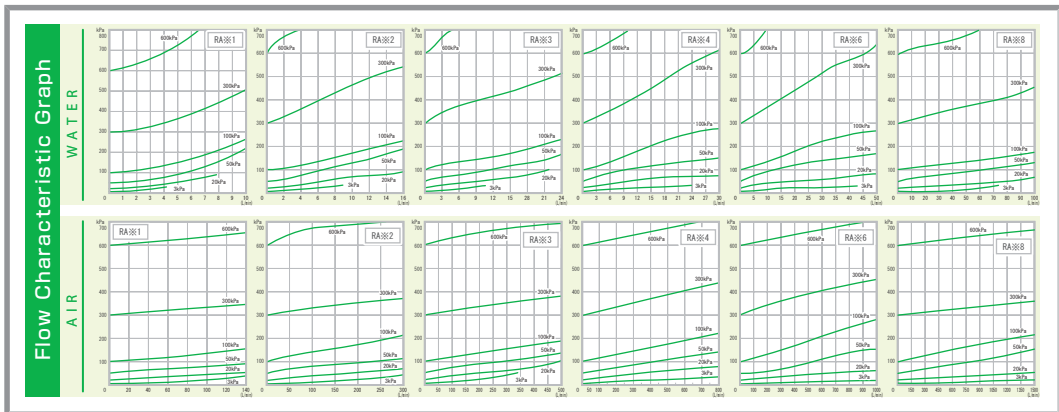
Example of kPa indication: For 50 kPa: 50; For 1.0 MPa (1000 kPa): 1000

* Caution: Be sure to specify the setting pressure in kPa when ordering. (Reference) 1 kgf/cm2 ≠ 98 kPa; 1 PSI ≠ 6.9 kPa

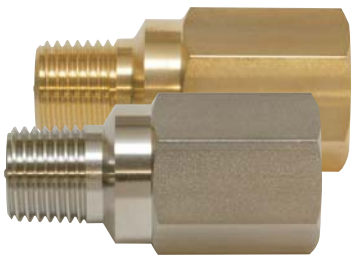
* The data indicated in this table is the reference data of the X-ring maker, and is not the guaranteed performance of our company.

* We can also correspond to materials not mentioned on the left.

<Example> RA Series Body Material: SUS316, X-ring: Fluorine rubber Class 4 D; Size: R1/4; Cracking pressure: 500 kPa → Type 'RAT2V-500'



Relief Valve RL Series (Low Pressure In-line Type)



Features

- Uses an X-ring seal
- High precision cracking and high repeatability
- Correspond to low pressure specifications
- Compact and light weight
- Can also be used for special fluids (Organic solvents, Vapor, etc.)

Application

- Gas analyzers, Gas mixing machines, Various gas generators, Medical instruments, Industrial furnaces, Small compressor protection circuits, Internal pressure explosion proof panels, Various pressure vessel protection, etc.

Specifications	
Burst Pressure	1.62MPa
Connection Size	1/4" - 1 1/4" (Inlet (R) x Outlet (Rc))
Body Material	Brass / SUS316
X-ring material	Fluorine rubber Class 4 D (Standard)
Operating Temperature Range	Depending on X-ring material
Cracking Pressure	3~1080kPa
Setting Range	* The setting range for 1/4" is 3 - 970 kPa. * 3 - 29 kPa settings are optional.
Remarks	* If the setting pressure is 5 kPa or less, the attachment direction of the outlet is limited to upward

Dimensions Table (mm)		
Connection Size (R)	A	(opposite side)
1/4	41.0	19.0
3/8	53.0	22.0
1/2	60.0	27.0
3/4	69.0	32.0
1"	90.0	38.0
1-1/4	115.0	50.0

Type Selection Tables **R L T 2 V - 500**

Basic Type		Cracking Pressure (kPa)	
R	L	50	1000
In-line Type			

Body Material		X-ring Mate	
B	Brass	V	Fluorine rubber Class 4 D (Standard)
T	SUS316	D	PerFlour
		N	NBR Class 1 A
		F	Aflas®

Connection Size		Operating Temperature Range (Ref)	
2	1/4	6	3/4
3	3/8	8	1"
4	1/2	10	1-1/4

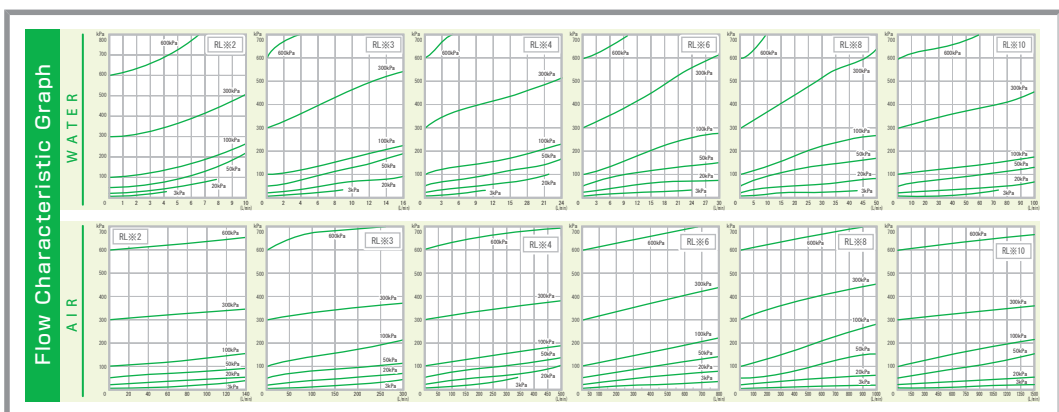
Example of kPa indication: For 50 kPa: 50; For 1.0 MPa (1000 kPa): 1000

* Caution: Be sure to specify the setting pressure in kPa when ordering. (Reference) 1 kgf / cm2 ≠ 98 kPa; 1 PSI ≠ 6.9 kPa

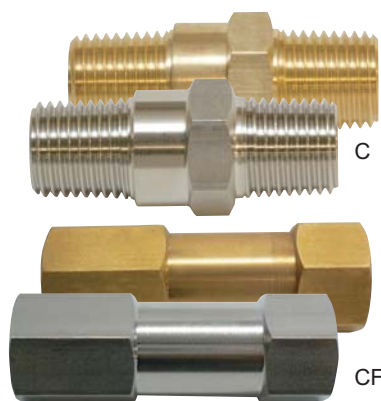
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* We can also correspond to materials not mentioned on the left.

<Example> RL Series Body Material: SUS316, X-ring: Fluorine rubber Class 4 D; Size: R1/4; Cracking pressure: 500 kPa → Type 'RLT2V-500'



Check Valve C & CF Series (General Purpose)



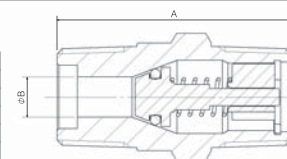
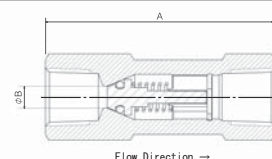
Features

Compact and long life
Combination of ring and metal seat
Double seat sealing method
Stable movement with long poppet guide
Abundant size line-up

Application

Machine tools, Special-purpose machines, Cleaning machines, Deodorization machines, Medical instruments, Ozonators, various Hydraulic equipment, Analyzers, Molding machines, Extruders, Boiler burners, Construction equipment, Liquid leak prevention, Gas mixing machines, etc.

Specifications		Working Pressure	Vacuum ~ 4.9 MPa	Body Material	Brass / SUS316	CV Value (Ref)	1/8 : 0.28	1/4 : 0.60	3/8 : 1.05	Remarks	- Maximum differential pressure 0.6 MPa - Built-in Disc Filter is possible (Option) (C Series only) - Optional cracking 1, 20, 50 kPa * If 1 kPa is selected, the attachment direction of the outlet is limited to upward
Burst Pressure	7.35MPa	O-ring Material	Fluorine rubber Class 4 D (Standard)	Operating Temperature Range	Depending on O-ring material		1/2 : 1.60	3/4 : 3.20	1" : 6.90		
Connection Size (C)	R1/8~R1"	Cracking Pressure	Standard 7 kPa								
Connection Size (CF)	Rc1/8~Rc1"										

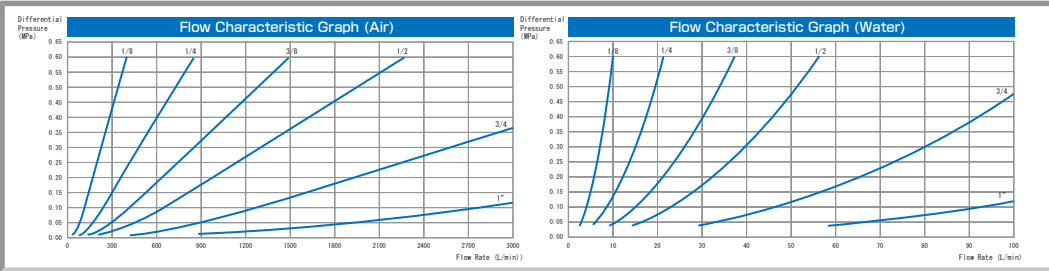
Dimensions		■Dimensions Table (mm)				■Dimensions Table (mm)			
Connection Size (R)	A	B	HEX (opposite side)		Connection Size (R)	A	B	HEX (opposite side)	
1/8	33.5	3.5	13.0		1/8	38.0	3.5	13.0	
1/4	40.2	5.0	16.0		1/4	52.0	5.0	17.0	
3/8	40.5	6.9	19.0		3/8	54.0	6.9	19.0	
1/2	48.0	9.8	22.0		1/2	64.0	9.8	22.0	
3/4	59.0	14.0	29.0	3/4	75.0	14.0	29.0		
1"	68.0	16.2	35.0	1"	89.0	16.2	35.0		

Type Selection Tables		C	T	2	V	—	※
■Basic Type	C Male, male connection CF Female, female connection						
■Body Material	B Brass T SUS316						
■Connection Size	1 1/8 4 1/2 2 1/4 6 3/4 3 3/8 8 1"						
■O-ring Material	Codes O-ring Material Operating Temperature Range (Ref) V Fluorine rubber Class 4 D (Standard) -12~+180°C K Kalrez® -4~+284°C D Perflour -27~+207°C						
	S Silicon Class 4 C -45~+180°C E Ethylene propylene -40~+90°C N NBR Class 1 A -27~+90°C						

When optional cracking is 50 kPa, it will be -50.
* Refer to remarks.

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* We can also correspond to materials not mentioned on the left.

<Example> C Series Body Material: SUS316; O-ring: Fluorine rubber Class 4 D (Standard); Size: R1/4; Cracking pressure: 7kPa (Standard) → Type 'CT2V'



Features

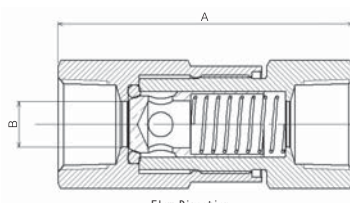
SUS316 is used for all stainless steel types
O-ring acts as a bond between the 2 piece body and valve seal
Corresponds to high pressure
Can be used up to 10 MPa

Application

Machine tools, Special-purpose machines, Cleaning machines, Deodorization machines, Medical instruments, Ozonators, various Hydraulic equipment, Analyzers, Molding machines, Extruders, Boiler burners, Construction equipment, Liquid leak prevention, Gas mixing machines, etc.

Check Valve CH Series (High Pressure Type)

Specifications		Type	CHB**	CHT**	Cracking Pressure	7kPa
Working Pressure	0~10MPa				O-ring Material	Fluorine rubber Class 4 D (Standard)
Burst Pressure	15MPa				Operating Temperature Range	Depending on O-ring material
Connection Size	Rc1/4"~Rc1/2"				CV Value (Ref)	1/4" : 0.5 3/8" : 1.5 1/2" : 1.5
Body Material	Brass					
	SUS316					

Dimensions		■Dimensions Table (mm)			
Connection Size (Rc)	A	B	HEX (opposite side)		
1/4	46.0	5.0	19.0		
3/8	60.0	9.2	24.0		
1/2	73.0	9.2	27.0		

Type Selection Tables		CH	T	3	V
■Basic Type	CH High Pressure Type				
■Body Material	B Brass T SUS316				
■Connection Size	2 1/4 3 3/8 4 1/2				
■O-ring Material	Codes O-ring Material Operating Temperature Range (Ref) V Fluorine rubber Class 4 D (Standard) -12~+180°C K Kalrez® -4~+284°C D Perflour -27~+207°C				
	S Silicon Class 4 C -45~+180°C E EPDM -40~+90°C N NBR Class 1 A -27~+90°C				

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* We can also correspond to materials not mentioned above.

<Example> CH Series Body Material: SUS316; O-ring: Fluorine rubber Class 4 D; Size: R3/8 → Type 'CHT3V'



Check Valve CV Series (High Pressure & High Flow Type)

Features

- Compact and long life
- Combination of ring and metal seat
- Double seat sealing method
- Stable movement with long poppet guide
- Abundant size line-up

Application

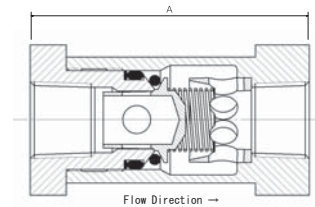
Machine tools, Special-purpose machines, Cleaning machines, Deodorization machines, Medical instruments, Ozonators, various Hydraulic equipment, Analyzers, Molding machines, Extruders, Boiler burners, Construction equipment, Liquid leak prevention, Gas mixing machines, etc.

Specifications

Working Pressure	Brass: 20.6 MPa; SUS303 equivalent: 31 MPa	Cracking Pressure	7kPa
Connection Size	PT1/8 - PT1", PT2" (SUS PT1/4 - PT1")	CV Value (Ref)	1/8 : 1.7, 1/4 : 3.0, 3/8 : 3.9, 1/2 : 7.4, 3/4 : 11.4, 1" : 14.2
Body Material	Brass (ASTMB16) / SUS303 equivalent (ASTMA562)	Remarks	*Please contact us for other materials (SUS316, etc.), or for sizes (up to 2").
O-ring Material	Fluorine rubber (Standard)		
Operating Temperature Range	Depending on O-ring material		
Back-up Ring Material	TFE		

Dimensions

Connection Size (PT)	A	HEX (opposite side)	CV Value
1/8	43.2	20.7	1.7
1/4	57.2	25.4	3.0
3/8	61.7	31.8	3.9
1/2	74.4	38.1	7.4
3/4	85.6	44.5	11.4
1"	101.4	50.8	14.2
2"	154.9	70(2-way shear)	51.0



Type Selection Tables

CV - R 250 B - V - 1

Basic Type	CV	Thread Standard	R	PT	Cracking Pressure, PSI Indication	250	O-ring Material	V	Fluorine rubber (Standard)	Operating Temperature Range (Ref)	-29~+190°C
			No Indication	NPT		Connection Size	B	Brass	1/8~2"		
							S	SUS303 equivalent	1/4~1"		

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<Example> CV Series Body Material: Brass; O-ring: Fluorine rubber; Size: R1/4; Cracking pressure: 7 kPa → Type 'CV-R250B-V-1'



Features

- Fluoro-resin with excellent corrosion resistance
- Can be used with organic solvents and etc., including strong acids and alkalis
- Best possible safety and reliability

Application

Cleaning machines, Ozone water generators, 2 Liquid mixing machines, Printing machines, Ink mixing systems, Chemical equipment, etc.

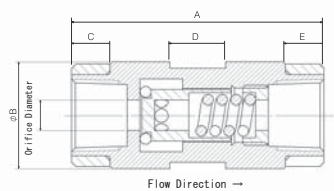
Check Valve C5 Series (PTFE)

Specifications

Working Pressure	0~0.4MPa
Burst Pressure	0.5MPa
Connection Size	PT3/8~PT3/4
Material of Liquid Contact Parts	PTFE
O-ring Material	Acid resistant fluorine rubber
Cracking Pressure	20kPa or less (Standard)

Dimensions

Connection Size	A	B	C	D	E	Drift Diameter
PT3/8	59	φ25	9	13	9	φ7
PT1/2	74	φ30	16	16	16	φ10
PT3/4	85	φ37	18	15	18	φ14



Type Selection Tables

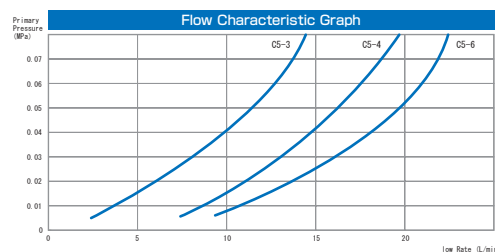
C5 - 3 - P - ※

Basic Type	C5	PTFE	Optional Cracking	※		
			O-ring Material	V		
			Codes	O-ring Material	Operating Temperature Range (Ref)	
				V	Acid resistant fluorine rubber (Standard)	+5~+80°C
			P	Perflour	-27~+207°C	
			E	EPDM	-40~+90°C	
			K	Kalrez™	-4~+284°C	

C5-3: 0.5 only (50 kPa)
C5-4: 0.5 (50kPa), 2 (200kPa), 3 (300kPa)

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* We can also correspond to materials not mentioned on the left.

<Example> PTFE O ring: Perflour; Size: R3/8 → Type 'C5-3-P'





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