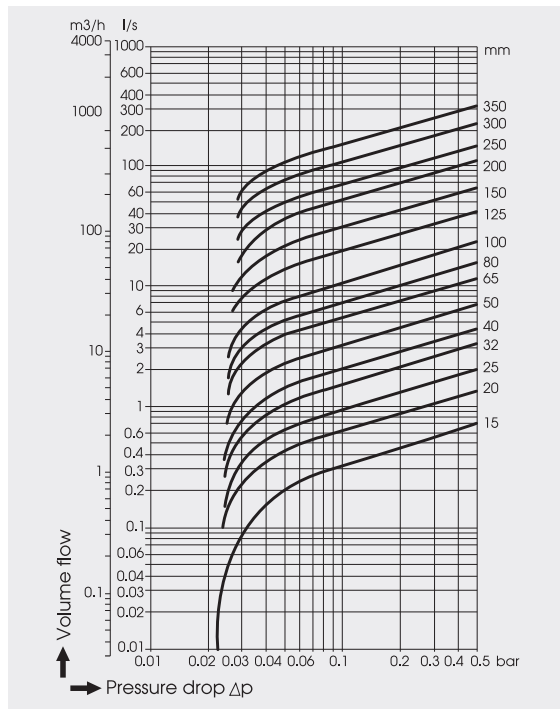


PAN CHECK VALVE

PAN Check Valve Feature

- No water hammering effect**
There is no water hammering effect since the valve is closed by spring before water backflow takes place.
- Thin, Small and Light Structure**
PAN Check Valves have much shorter length and lighter than those of swing or lift check valves because the disc stroke is short and body has no flange.
- Either Horizontal or Vertical Installation**
PAN Check Valves can be horizontally or vertically installed because of their spring compression structure. They can also be installed at the vertical downflow sections.
- Free alteration of opening pressure**
Alteration of opening pressure is available upon consumer's request.

Pressure drop Chart



Notice

- Please contact us when the valve is used in high pressure and temperature.
- Please contact us when the valve is used in excessively frequent open and close condition.

Comparative Table

Size		50	65	80	100	125	150	200	250
Weight (kg)	Pan Check	1,0	1,5	2,1	3,6	9,3	14	29	44
	Swing Check	12	17	21	31	50	70	110	—
	Lift Check	10	14	16	20	30	40	80	—
F to F (mm)	Pan Check	40	46	50	60	90	106	140	170
	Swing Check	200	220	240	290	360	410	500	—
	Lift Check	300	216	241	292	356	406	495	—

Connection Bolts Dimensions (10K)

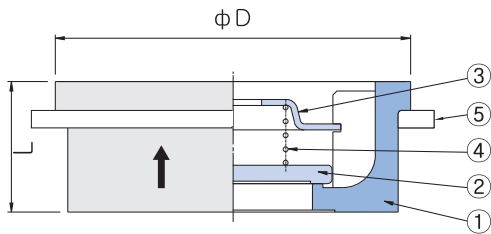
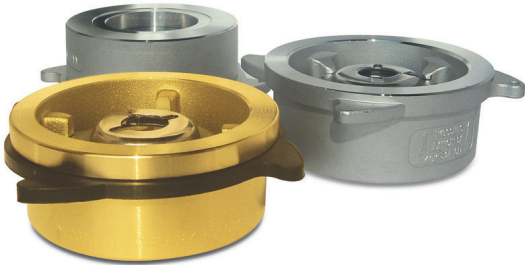
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
Bolt	Q'ty	4	4	4	4	4	4	4	8	8	8	8	12	12
	M	12	12	16	16	16	16	16	16	16	20	20	20	22
	L	65	70	75	85	90	100	110	120	130	170	190	220	260

PCV Overview table

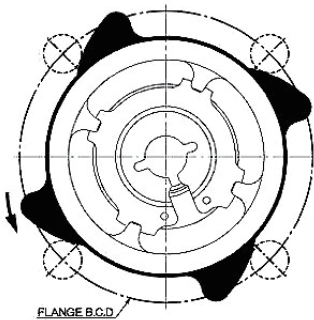
Model	Size (mm)	Max. Pressure	Materials	Internal fittings Material	Fold Genus	Connection sheets
PC	15-80	16	Forged Brass	Stainless Steel	W	Metal to Metal
	100	16	Bronze casting	Stainless Steel	W	Metal to Metal
	15-100	40	Stainless Steel	Stainless Steel	W	Metal to Metal
PA	25-80	10	Stainless Steel	Stainless Steel	W	Rubber to Metal
	25-80	10	Forged Brass	Stainless Steel	W	Rubber to Metal
	25-80	16	Forged Brass	Stainless Steel	W	Metal to Metal
	25-80	40	Stainless Steel	Stainless Steel	W	Metal to Metal
	100	10	Stainless Steel	Stainless Steel	W	Rubber to Metal
	100	10	Bronze casting	Stainless Steel	W	Rubber to Metal
	100	16	Bronze casting	Stainless Steel	W	Metal to Metal
	100	40	Stainless Steel	Stainless Steel	W	Metal to Metal
	25-350	10	Stainless Steel	Stainless Steel	W	Rubber to Metal
	125-250	10	Tak tile	Stainless Steel	W	Rubber to Metal
	25-200	40	Stainless Steel	Stainless Steel	W	Metal to Metal
	250-350	10~20	Stainless Steel	Stainless Steel	W	Metal to Metal
ANA	15-100	150~300 Class	Stainless Steel	Stainless Steel	W	Metal to Metal
CV	15-50	10 Bar	Forged Brass	Stainless Steel	S	Metal to Metal
PCS	15-50	20 Bar	Stainless Steel	Stainless Steel	S	Metal to Metal
UCV	15-50	10 Bar	Forged Brass	POM	S	Rubber to Metal
PAS	25-50	20 Bar	Stainless Steel	Stainless Steel	S	Metal to Metal
BU	08~20	20 Bar	Stainless Steel	Stainless Steel	S	Rubber to Metal
KAI	08~25	20 Bar	Stainless Steel	Stainless Steel	S	Rubber to Metal

MODEL NO. PC

< 50mm ~ 100mm >



Center Rubber How to use



When four points of center rubbers have simultaneous contact with four bolts, it is properly centered.

Notice

Please only use for in compressible fluid.

Specification

Model		PC12	PC22
Seat		Metal Touch	Metal Touch
Size		15mm(1/2")~100mm(4")	15mm(1/2")~100mm(4")
Max. Pressure		16bar	40bar
Test. Press	Body	24bar	60bar
	Disc seat	18bar	44bar
Pipe connections		Wafer	
Materials	①Body	Forged Brass (100A:Bronze)	Stainless Steel
	②Disc	Stainless Steel	
		Solid Teflon (-40°C ~ +180°C, Pressure 7bar)	
	③Spring Seat	Stainless Steel	
	④Spring	Stainless Steel, Inconel	
⑤Center Rubber	NBR	Stainless Steel	
Pressure Drop		Please refer to table 1 of page16.	

Dimensions

Size mm(Inch)	D (mm)	L (mm)	Weight (kg)
15(1/2)	40	16	0,09
20(3/4)	46(50)	19	0,12
25(1)	60	22	0,3
32(1 1/4)	72	28	0,5
40(1 1/2)	86	32	0,7
50(2)	100(102)	40	1,0
65(2 1/2)	120	46	1,5
80(3)	132	50	2,1
100(4)	153	60	3,6

· L : Dim3202, Sheet3, Series K4

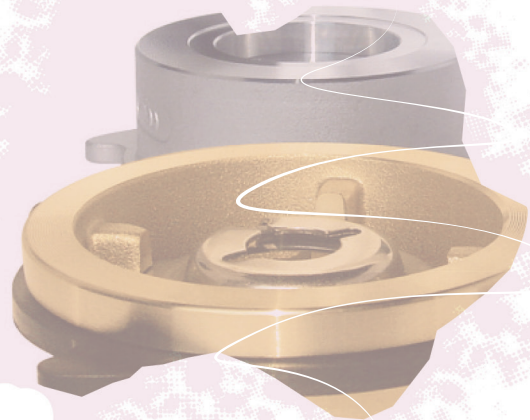
※Above dimensions are subject to change for improvement

Opening Pressure

↑	With spring			Without spring
	↑	→	↓	↑
0,053	0,050	0,045	0,004	0,004
0,053	0,050	0,045	0,004	0,004
0,054	0,050	0,044	0,005	0,005
0,053	0,050	0,045	0,004	0,004
0,054	0,050	0,044	0,005	0,005
0,055	0,050	0,043	0,006	0,006
0,055	0,051	0,043	0,006	0,006
0,056	0,051	0,042	0,007	0,007
0,057	0,051	0,041	0,008	0,008

Application

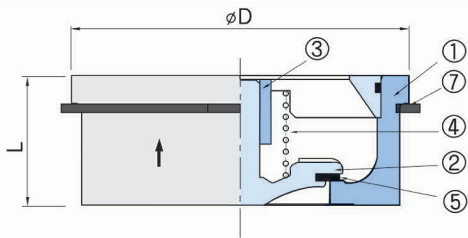
- Water, Oil
- Vacuum Breaker, Float valve
- Onshore, Offshore



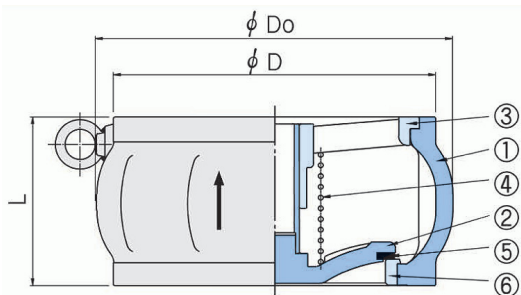
PAN CHECK VALVE

MODEL NO. PA

< 25mm ~ 100mm >



< 125mm ~ 250mm >



Specification

Model		PA12		PA32	
Seat		Metal	Rubber	Metal	Rubber
Size		25mm(1")~100mm(4")		125mm(5")~250mm(10")	
Max_Pressure		16bar	10bar	10bar	
Test. Press	Body	24bar	15bar	15bar	
	Disc seat	18bar	11bar	11bar	
End connections		Wafer			
Materials	①Body	Forged Brass (100A:Bronze)		Ductile Cast Iron	
	②Cone Disc	Stainless Steel			
	③Guide	Stainless Steel			
	④Spring	Stainless Steel, Inconel			
	⑤Disc Rubber	EPDM -10°C~+130°C VITON -20°C~+150°C PTFE -40°C~+180°C			
	⑥Valve Seat	-		Bronze Ring	
	⑦Cener Rubber	NBR(25A~80A)		-	
Pressure Drop		Please refer to table 1 of page16.			

Dimensions

Size mm(Inch)	D (mm)	Do (mm)	L (mm)	Weight (kg)	With spring			Without spring
					↑	→	↓	↑
25(1)	60	-	22	0,35	0,055	0,051	0,043	0,006
32(1 1/4)	72	-	28	0,55	0,052	0,048	0,041	0,005
40(1 1/2)	86	-	32	0,8	0,055	0,050	0,042	0,006
50(2)	102	-	40	1,1	0,055	0,050	0,041	0,007
65(2 1/2)	120	-	46	1,6	0,056	0,050	0,040	0,008
80(3)	133	-	50	2,3	0,057	0,050	0,039	0,009
100(4)	153	170	60	3,8	0,058	0,051	0,038	0,010
125(5)	186	212	90	9	0,060	0,051	0,035	0,012
150(6)	215	247	106	13,5	0,060	0,050	0,032	0,014
200(8)	265	295	140	28,3	0,062	0,049	0,027	0,018
250(10)	330	355	170	44	0,064	0,050	0,025	0,019

· L : Dim3202, Sheet3, Series K4

※Above dimensions are subject to change for improvement

Opening Pressure

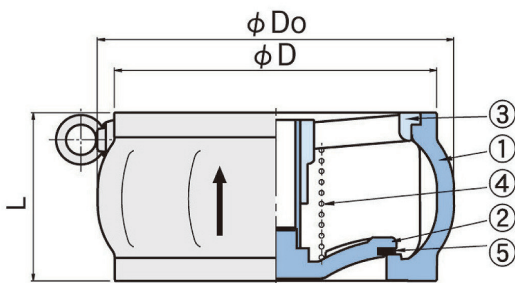
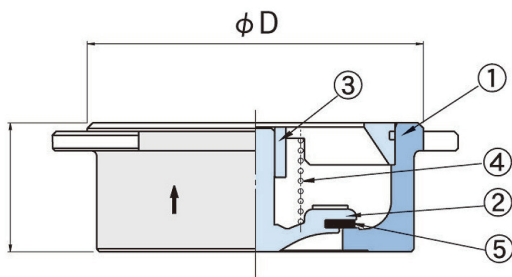
Size mm(Inch)	D (mm)	Do (mm)	L (mm)	Weight (kg)	With spring			Without spring
					↑	→	↓	↑
25(1)	60	-	22	0,35	0,055	0,051	0,043	0,006
32(1 1/4)	72	-	28	0,55	0,052	0,048	0,041	0,005
40(1 1/2)	86	-	32	0,8	0,055	0,050	0,042	0,006
50(2)	102	-	40	1,1	0,055	0,050	0,041	0,007
65(2 1/2)	120	-	46	1,6	0,056	0,050	0,040	0,008
80(3)	133	-	50	2,3	0,057	0,050	0,039	0,009
100(4)	153	170	60	3,8	0,058	0,051	0,038	0,010
125(5)	186	212	90	9	0,060	0,051	0,035	0,012
150(6)	215	247	106	13,5	0,060	0,050	0,032	0,014
200(8)	265	295	140	28,3	0,062	0,049	0,027	0,018
250(10)	330	355	170	44	0,064	0,050	0,025	0,019

Application

- Water, Oil
- Vacuum Breaker, Float valve
- Onshore, Offshore

MODEL NO. PA

< 25mm ~ 350mm >



Specification

Seat		Metal Touch		Rubber Touch
Size		25mm(1")~100mm(4")	250mm(10")~350mm(14")	25mm(1")~350mm(14")
Max. Pressure		40bar	20bar	10bar
Test. Press	Body	60bar	30bar	15bar
	Disc seat	44bar	22bar	11bar
Rating and Temperature		40bar	34bar	32bar
		120°C	200°C	300°C
End connections		Wafer		
Materials	①Body	Stainless Steel		
	②Cone Disc	Stainless Steel		
	③Guide	Stainless Steel		
	④Spring	Stainless Steel, Inconel		
	⑤Disc Rubber	EPDM -10°C~+130°C VITON -20°C~+150°C PTFE -40°C~+180°C		
Pressure Drop		Please refer to table 1 of page16.		

※20Bar Rubber Touch products, please contact us, (PAG-type)

Dimensions

Size mm(Inch)	D (mm)	Do (mm)	L (mm)	Weight (kg)	With spring			Without spring
					↑	→	↓	↑
25(1)	61	-	22	0,35	0,055	0,051	0,043	0,006
32(1¼)	72	-	28	0,55	0,052	0,048	0,041	0,005
40(1½)	87	-	32	0,8	0,055	0,050	0,042	0,006
50(2)	101	-	40	1,1	0,055	0,050	0,041	0,007
65(2½)	119	-	46	1,6	0,056	0,050	0,040	0,008
80(3)	133	-	50	2,3	0,057	0,050	0,039	0,009
100(4)	153	170	60	3,8	0,058	0,051	0,038	0,010
125(5)	186	212	90	9	0,060	0,051	0,035	0,012
150(6)	215	247	106	13,5	0,060	0,050	0,032	0,014
200(8)	265	295	140	28,3	0,062	0,049	0,027	0,018
250(10)	330	355	170	44	0,064	0,050	0,025	0,019
300(12)	403	430	192	75	0,068	0,048	0,016	0,026
350(14)	447	477	222	94	0,068	0,050	0,019	0,024

· L : Dim3202, Sheet3, Series K4

※Above dimensions are subject to change for improvement

Opening Pressure

Size mm(Inch)	D (mm)	Do (mm)	L (mm)	Weight (kg)	With spring			Without spring
					↑	→	↓	↑
25(1)	61	-	22	0,35	0,055	0,051	0,043	0,006
32(1¼)	72	-	28	0,55	0,052	0,048	0,041	0,005
40(1½)	87	-	32	0,8	0,055	0,050	0,042	0,006
50(2)	101	-	40	1,1	0,055	0,050	0,041	0,007
65(2½)	119	-	46	1,6	0,056	0,050	0,040	0,008
80(3)	133	-	50	2,3	0,057	0,050	0,039	0,009
100(4)	153	170	60	3,8	0,058	0,051	0,038	0,010
125(5)	186	212	90	9	0,060	0,051	0,035	0,012
150(6)	215	247	106	13,5	0,060	0,050	0,032	0,014
200(8)	265	295	140	28,3	0,062	0,049	0,027	0,018
250(10)	330	355	170	44	0,064	0,050	0,025	0,019
300(12)	403	430	192	75	0,068	0,048	0,016	0,026
350(14)	447	477	222	94	0,068	0,050	0,019	0,024

Application

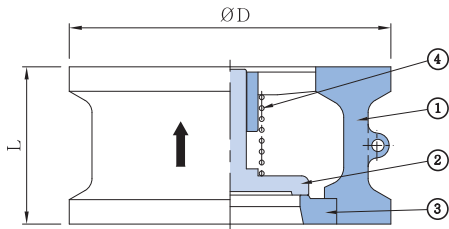
- Water, Oil
- Vacuum Breaker, Float valve
- Onshore, Offshore



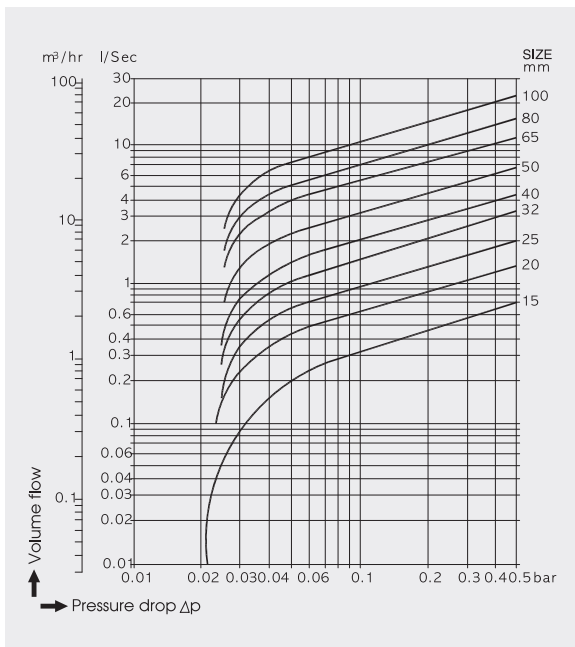
PAN CHECK
VALVE

MODEL NO. ANA

< 15mm(1/2") ~ 100mm(4") >



Pressure drop Chart



Specification

Seat		Metal Touch		
Size		15mm(1/2")~100mm(4")		
Rating		Class 150 (PN20)	Class 300 (PN50)	Class 600 (PN100)
Test. Press	Body	15bar	30bar	60bar
	Disc seat	11bar	22bar	44bar
Pressure and Temperature		ASME B16,34 Pressure and Temperature Reference		
Pipe connections		Wafer		
Materials	①Body	Stainless Steel		
	②Cone Disc	Stainless Steel		
	③Seat	Stainless Steel		
	④Spring	Stainless Steel, Inconel		

Dimensions

Size mm (Inch)	Class(PN)	D(mm)	L(mm)	W,t(kg)
15(1/2)	150(20)	45	25	0.2
	300(50)	51	25	0.25
	600(100)	51	25	0.3
20(3/4)	150(20)	54	31,5	0.37
	300(50)	64	31,5	0.46
	600(100)	64	31,5	0.55
25(1)	150(20)	64	35,5	0.47
	300(50)	70	35,5	0.54
	600(100)	70	35,5	0.65
32(1 1/4)	150(20)	73	40	0.7
	300(50)	80	40	0.77
	600(100)	80	40	0.92
40(1 1/2)	150(20)	83	45	1
	300(50)	92	45	1.2
	600(100)	92	45	1.44
50(2)	150(20)	102	60(50)	1.8
	300(50)	109	60(50)	2
	600(100)	109	60(50)	2.4
65(2 1/2)	150(20)	121	67(63)	2.7
	300(50)	127	67(63)	2.9
	600(100)	127	67(63)	3.48
80(3)	150(20)	134	73(71)	3.7
	300(50)	146	73(71)	4.3
	600(100)	146	73(71)	5.16
100(4)	150(20)	172	73(80)	6.8
	300(50)	178	73(80)	7.1
	600(100)	178	73(80)	8.52

· L (surface spacing): The ASME B16,10 standards and () inside dimensions Din 3202, Sheet 3, Series K4 standards.

※Above dimensions are subject to change for improvement

Application

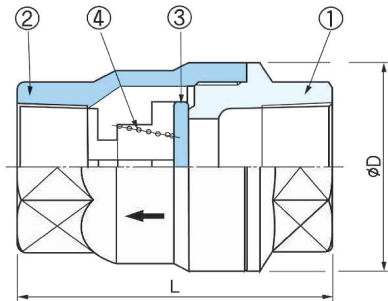
Horizontal pipe standards

Application

- Water, Oil
- Vacuum Breaker, Float valve
- Onshore, Offshore

MODEL NO. CV

< 15mm ~ 50mm >



Specification

Seat	Metal Touch	
Size	15mm(1/2") ~ 50mm(2")	
Rating	10bar	
Test	15bar	
End connections	Screwed End	
Materials	①Body	Forged Brass
	②Cap	Forged Brass
	③Disc	Stainless Steel Solid Teflon (-40°C~+180°C, Pressure 7bar)
	④Spring	Stainless Steel

Dimensions

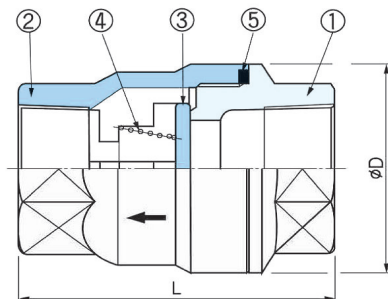
Size mm(Inch)	D (mm)	L (mm)	Weight (kg)
15(1/2)	33	48	0,15
20(3/4)	41	58	0,26
25(1)	50,4	66	0,49
32(1 1/4)	58	74,5	0,65
40(1 1/2)	71	84,5	0,88
50(2)	88	95,5	1,2

Opening Pressure

With spring →
0,05
0,05
0,05
0,05
0,05
0,05

MODEL NO. PCS

< 15mm ~ 50mm >



Specification

Seat	Metal Touch	
Size	8mm(1/4") ~ 50mm(2")	
Max. Pressure	20bar	
Pressure test	30bar	
End connection	Screwed End	
Materials	①Body	Stainless Steel
	②Cap	Stainless Steel
	③Disc	Stainless Steel Solid Teflon (-40°C~+180°C, Pressure 7bar)
	④Spring	Stainless Steel
	⑤O-Ring	NBR

Dimensions

Size mm(Inch)	D (mm)	L (mm)	W.T (kg)
8(1/4), 10(3/8)	27	42	0,13
15(1/2)	35	48	0,18
20(3/4)	43	61	0,3
25(1)	54	73	0,6
32(1 1/4)	62	81	0,8
40(1 1/2)	75	87	1,2
50(2)	90	100	1,8

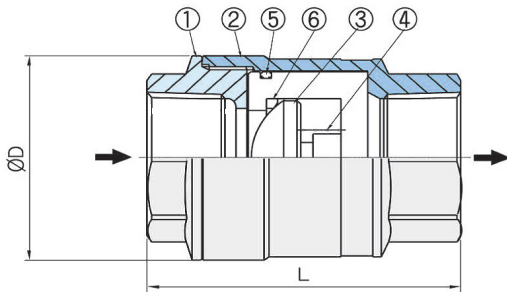
Tightening torque

Please keep below Tightening torque to prevent valve body from twisting.

CV 15	1,050 kg · cm
PCS 22-8	800 kg · cm
PCS 22-10	1,200 kg · cm
PCS 22-15	1,500 kg · cm

PAN CHECK VALVE

MODEL NO. UCV



Specification

Seat	Rubber Touch	
Size	15mm(1/2") ~ 50mm(2")	
Rating	10bar	
Test, Press	15bar	
End connections	Screwed End	
Materials	①Body	Forged Brass
	②Cap	Forged Brass
	③Valve Unit	POM
	④Spring	Stainless Steel
	⑤O-Ring	NBR
	⑥Disc Rubber	EPDM
Mex,Temp	Max, 80°C	

Dimensions

Size mm(Inch)	D (mm)	L (mm)	W,T (kg)
15(1/2)	31,6	51	0,11
20(3/4)	40	58	0,25
25(1)	51,7	69	0,4
32(1 1/4)	60	80	0,6
40(1 1/2)	75	93	1,1
50(2)	94	102	1,5

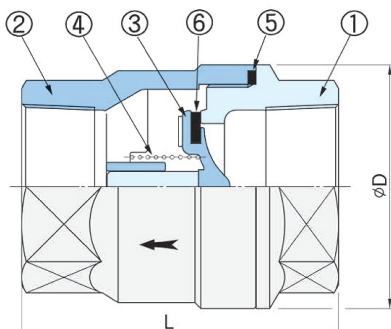
Opening Pressure

0.05kgf/cm²

Features

- 1) Suitable for low working pressure
- 2) Less noise

MODEL NO. PAS



Specification

Seat	Metal Touch	Rubber Touch
Size	25mm(1") ~ 50mm(2")	
Rating	20bar	10bar
Test, Press	30bar	15bar
Pipe connections	Screwed End	
Materials	①Body	Stainless Steel
	②Cap	Stainless Steel
	③Disc	Stainless Steel
	④Spring	Stainless Steel
	⑤O-Ring	NBR
	⑥Disc Rubber	EPDM (-10°C ~ + 130°C) VITON (-20°C ~ + 150°C)

Dimensions

Size mm(Inch)	D (mm)	L (mm)	W,T (kg)
8(1/4), 10(3/8)	27	42	0.13
15(1/2)	35	48	0.18
20(3/4)	43	61	0.3
25(1)	54	73	0.6
32(1 1/4)	62	81	0.8
40(1 1/2)	75	87	1.2
50(2)	90	100	1.8

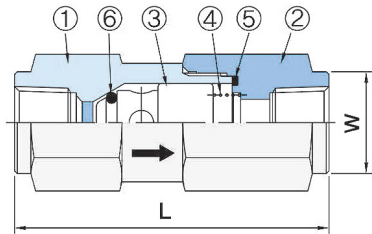
Tightening torque

Please keep below Tightening torque to prevent valve body from twisting.

CV 15	1,050 kg · cm
PCS 22-8	800 kg · cm
PCS 22-10	1,200 kg · cm
PCS 22-15	1,500 kg · cm

MODEL NO. BU

< 6mm ~ 20mm >



Specification

Materials	Stainless Steel
Max. Pressure	Rubber : 20 Bar
Part name	①Body ②Cap ③Poppet ④Spring ⑤O-Ring ⑥Seat O-Ring

Dimensions

Size mm(Inch)	W (mm)	L (mm)	W.T (kg)
6(1/8)	22	48	0,8
8(1/4)	22	57	1,2
10(3/8)	22	57	1,2
15(1/2)	31	70	0,31
20(3/4)	38	82	0,48

※Above dimensions are subject to change for improvement.

Tightening torque

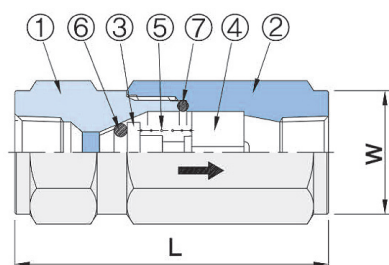
BU22-6/8	800 kg · cm
BU 22-10	1,200 kg · cm
BU 22-15	1,500 kg · cm

Opening Pressure

0,1Bar (Horizontal pipe standards)

MODEL NO. KAI

< 6mm ~ 25mm >



Specification

Materials	Stainless Steel / C3604
Max. Pressure	20 Bar
Part name	①Body ②Cap ③Disc ④Guide ⑤Spring ⑥Seat O-Ring ⑦O-Ring

Dimensions

Size mm(Inch)	W (mm)	L (mm)	W.T (kg)
6(1/8)	17	42	0,6
8(3/8)	19	46	0,12
10(1/3)	24,8	52	1,2
15(1/2)	30,5	65	0,42
20(3/4)	36,5	78	0,72
25(1)	45,5	90	1,34

※Above dimensions are subject to change for improvement.

Opening Pressure

0,05Bar (Horizontal pipe standards)