

SELF CONTROL VALVE

(PRESSURE RETAINING TYPE)

Features

- The pressure retaining type maintains the primary side pressure constant.
- The valve opens when the primary side pressure exceeds the set value and closes when the pressure falls below the set value. It works using the fluid pressure only, without using any auxiliary power.
- For appropriate flow range, see P.5.



Basic specifications

- Valve Type : Self Control Valve (Pressure Retaining Type)
- Size : 15mm (1/2") - 50mm (2")
- Body Material : U-PVC (Conforming to ASTM D1784 Cell Classification 12454A)
- Seal Material : EPDM, etc.
- Connection / Flanged : JIS B2220, DIN/EN1092-1, ANSI B16.5
- / Socket : JIS B2220, DIN/EN1092-1, ANSI B16.5
- / Threaded : Rc, Rp, NPT

Body Material	FLUID TEMPERATURE °C {°F}	Maximum working pressure (Normal temperature) MPa {psi}
U-PVC	0 ~ 50 { 30 ~120 }	1.0 { 150 }

Note:: The maximum working pressure is the value including the water hammer pressure. Be careful that the maximum working pressure is not exceeded during use.

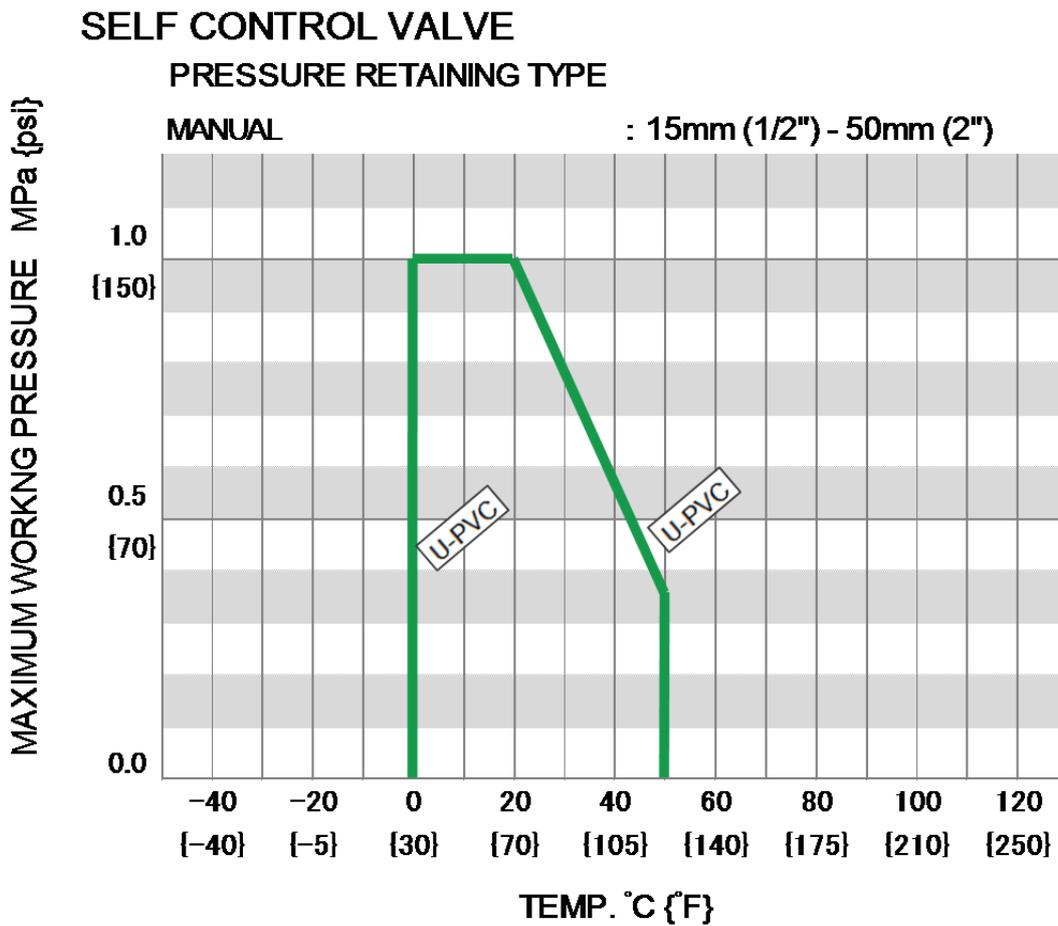
* Concerning the allowable pressure for each temperature and material, see the technical documents at the next page of this sheet.

Certificate / Approval / Directive

PED, ABS, NSF/ANSI61

“For details of applicable products, please consult us.”

Working pressure vs. Temperature

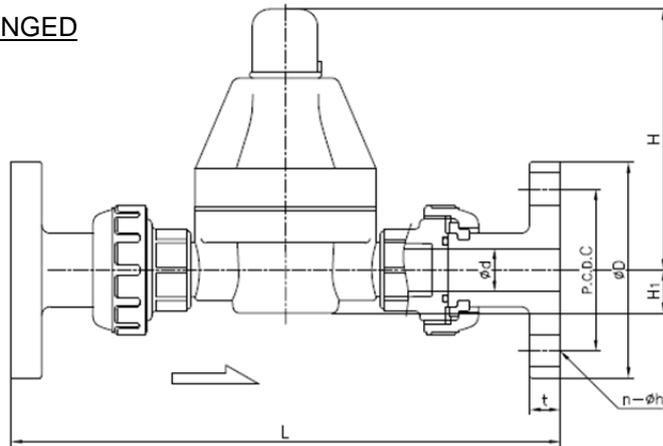


Note:

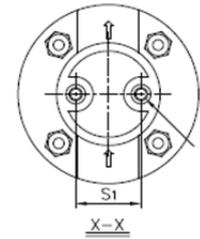
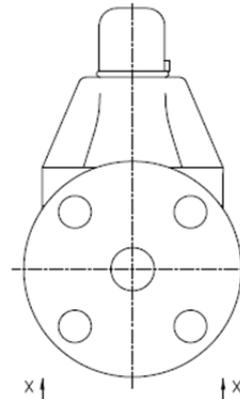
Make sure that the temperature and pressure are within the working range during operation.
 (If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

FLANGED

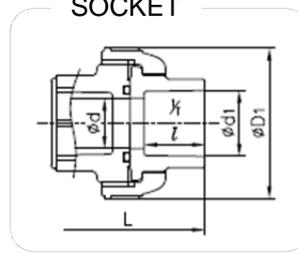


Detail of ENSAT fitting.

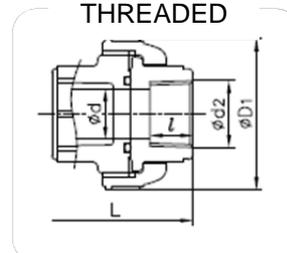


2-S2
Depth
S3

SOCKET



THREADED



■ JIS, DIN (Unit: mm)

									JIS												
									FLANGED				SOCKET				THREADED				
mm	inch	d	D ₁	H	H ₁	S ₁	S ₂	S ₃	D	C	n	h	L	t	d ₁	l	1/T	L	d ₂	l	L
15	1/2	15	48	120	20	29	M6	16	95	70	4	15	221	12	22.11	20	1/34	186	Rc 1/2	15	180
20	3/4	20	60	120	20	29	M6	16	100	75	4	15	252	14	26.13	24	1/34	208	Rc 3/4	17	200
25	1	25	70	175	27	47	M6	17	125	90	4	19	302	14	32.16	27	1/34	260	Rc 1	20	246
32	1 1/4	31	82	159	27	47	M6	17	135	100	4	19	296	16	38.19	30	1/34	268	Rc 1 1/4	22	256
40	1 1/2	40	100	250	43	-	-	-	140	105	4	19	379	16	48.21	37	1/37	356	Rc 1 1/2	25	330
50	2	51	106	250	43	-	-	-	155	120	4	19	395	16	60.25	42	1/37	380	Rc 2	28	358

		DIN											
		FLANGED DIN PN10/PN16						SOCKET			THREADED		
mm	inch	D	C	n	h	L	t	d ₁	l	L	d ₂	l	L
15	1/2	95	65	4	14	208	12	20	16	180	Rp 1/2	15	180
20	3/4	105	75	4	14	230	14	25	19	199	Rp 3/4	17	200
25	1	115	85	4	14	275	14	32	22	246	Rp 1	20	246
32	1 1/4	140	100	4	18	286	16	40	26	256	Rp 1 1/4	22	256
40	1 1/2	150	110	4	18	367	16	50	31	331	Rp 1 1/2	25	330
50	2	165	125	4	18	395	16	63	38	371	Rp 2	28	358

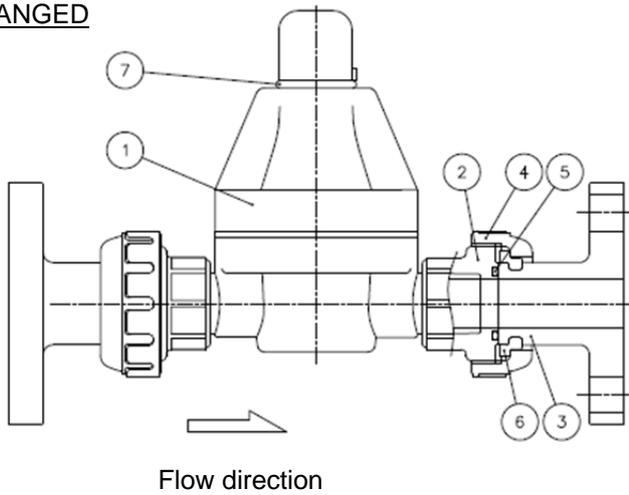
■ ANSI (Unit: inch)

									ANSI												
									FLANGED ANSI CLASS 150				SOCKET				THREADED				
inch	mm	d	D ₁	H	H ₁	S ₁	S ₂	S ₃	D	C	n	h	L	t	d ₁	d ₁ '	l	L	d ₂	l	L
1/2	15	0.59	1.89	4.72	0.79	1.14	M6	0.63	3.50	2.38	4	0.62	8.70	0.47	0.848	0.836	0.875	7.52	1/2 - 14 NPT	0.59	7.09
3/4	20	0.79	2.36	4.72	0.79	1.14	M6	0.63	3.88	2.75	4	0.62	9.92	0.55	1.058	1.046	1.000	8.23	3/4 - 14 NPT	0.67	7.87
1	25	0.98	2.76	6.89	1.06	1.85	M6	0.67	4.25	3.12	4	0.62	11.89	0.55	0.325	1.310	1.125	10.24	1 - 11 1/2 NPT	0.79	9.69
1 1/4	32	1.22	3.23	6.26	1.69	1.85	M6	0.67	4.62	3.50	4	0.62	11.65	0.63	1.670	0.655	1.250	10.63	1 1/4 - 11 1/2 NPT	0.87	10.08
1 1/2	40	1.57	3.94	9.84	1.69	-	-	-	5.00	3.88	4	0.62	14.92	0.63	1.912	1.894	1.375	13.82	1 1/2 - 11 1/2 NPT	0.98	12.99
2	50	2.01	4.17	9.84	1.69	-	-	-	6.00	4.75	4	0.75	15.55	0.63	2.387	2.369	1.500	14.57	2 - 11 1/2 NPT	1.10	14.09

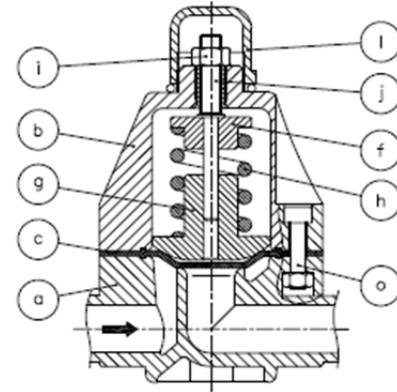
The shape and appearance of assembly differ a little with nominal size and material compared to this drawing

Parts list

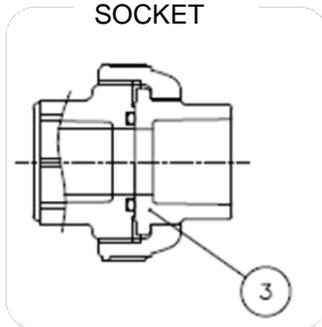
FLANGED



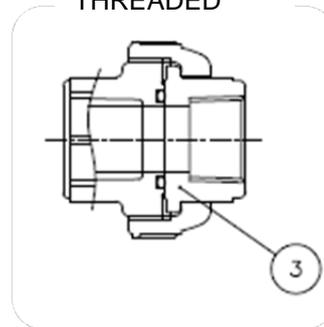
INSIDE STRUCTURE



SOCKET



THREADED



PART NO./NAME	QTY	MATERIAL
a BODY	1	U-PVC
b HOUSING	1	U-PVC
c DIAPHRAGM	1	EPDM, FKM-PTFE COATING
f SPRING PLATE	1	Aluminum
g COMPRESSOR	1	PP
h COMPRESSION SPRING	1	Spring steel
i LOCK NUT	1	Polyamide
j ADJUSTING SCREW	1	-
l CAP	1	Polystyrene

PART NO./NAME	QTY	MATERIAL
o BOLT, WASHER, NUT	4	-
2 PJ-BODY	2	U-PVC Self control valve dedicated for true union.
3 END CONNECTOR	2	U-PVC
4 UNION NUT	2	U-PVC
5 O-RING (C)	2	EPDM (FKM *)
6 STOP RING	2	PVDF Used for flanged type.
7 O-RING (D)	1	EPDM

* When the diaphragm is FKM with PTFE coating.

PROPER FLOW RANGE

SELF CONTROL VALVE

Pressure setting: 0.05 - 0.9 MPa

	mm	inch	MAXIMUM FLOW RATE [L/h]	APPROPRIATE FLOW RANGE [L/h] (30-70% of MAXIMUM FLOWRATE)		APPROPRIATE FLOW RANGE [L/m] (30-70% of MAXIMUM FLOWRATE)	
	PRESSURE RETAINING TYPE	15	1/2	1,300	390	—	910
20		3/4	2,200	660	—	1,540	11.0 — 25.7
25		1	3,500	1,050	—	2,450	17.5 — 40.8
32		1 1/4	5,700	1,710	—	3,990	28.5 — 66.5
40		1 1/2	9,000	2,700	—	6,300	45.0 — 105.0
50		2	14,000	4,200	—	9,800	70.0 — 163.3

Product weight

SELF CONTROL VALVE (U-PVC)

Unit: kg

mm	inch	PRESSURE RETAINING TYPE		
		FLANGED	SOCKET	THREADED
15	1/2	0.7	0.5	0.5
20	3/4	0.9	0.6	0.6
25	1	2.0	1.5	1.5
32	1 1/4	2.2	1.6	1.6
40	1 1/2	7.8	7.1	7.2
50	2	8.1	7.4	7.4

Product model code list

SELF CONTROL VALVE (Pressure Retaining Type)

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
A	PR	6T	U	*	*	*	***
:	:	:	:	:	:	:	:
A AUTOMATIC VALVE	PR SELF CONTROL VALVE	6T PRESSURE RETAINING TYPE	U U-PVC	E EPDM Z FKM (PTFE coating)	S SOCKET N THREADED F FLANGED	J JIS 1 10K D DIN A ANSI	015 15mm ? 050 50mm

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please refer IOM at below link"

http://www.asahi-yukizai.co.jp/product/mt_pdf/syudoben-manual29.pdf