

3 WAY BALL VALVE TYPE 23

- ENABLES SWITCHING BETWEEN TWO FLOW PATHS AND COMPLETE CLOSING. (ONLY ONE VALVE IS NECESSARY IN A LINE CONVENTIONALLY REQUIRING TWO BALL VALVES.)
- THE SHAPE OF VALVE ELEMENT (BALL) IS SELECTABLE FROM THREE KINDS, ALLOWING FOR SWITCHING OF FLOW DIRECTION ACCORDING TO THE APPLICATION.

BASIC SPECIFICATIONS

VALVE TYPE	3 WAY BALL VALVE TYPE 23			
SIZE	15 mm—100 mm (1/2 inch—4 inch)			
BODY MATERIAL	U-PVC	C-PVC	PP	PVDF
SEAL MATERIAL / O-RING	EPDM	FKM	etc.	
CONNECTION / FLANGED	JIS5K, JIS10K, DIN PN10, ANSI CLASS150			
SOCKET	JIS, DIN, ANSI			
THREADED	Rc, Rp, NPT			
PORT	DOUBLE L PORT, CROSS PORT, L PORT			

	FLUID TEMPERATURE	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) (MPa)(kgf/cm ²)	CONNECTION METHOD		
			FLANGED	SOCKET	THREADED
U-PVC	0°C ~ 50°C	1.0 {10.2}	○	○	○
C-PVC	0°C ~ 90°C	1.0 {10.2}	○	○	○
PP	-20°C ~ 80°C	1.0 {10.2}	○	○	○
PVDF	-20°C ~ 100°C	1.0 {10.2}	○	○	○

NOTE (1) The ball-type valves have dead spaces for structural reasons. Note that volatile liquids, such as hydrogen peroxide (H₂O₂) and sodium hypochlorite (NaClO), vaporize in those dead spaces, which may cause abnormal pressure increase in the valve. (When the internal pressure abnormally increases due to vaporization, the gas will be compressive fluid. If the valve breaks in this state, it will be very dangerous, causing explosion and scattering of fragments.) (2) 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 end of this catalog.

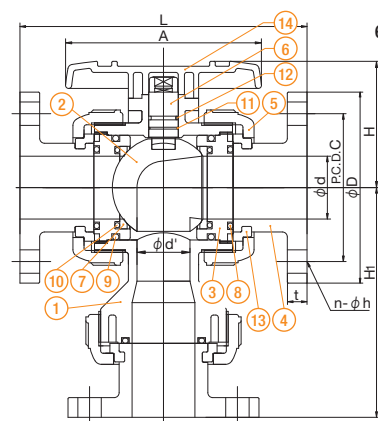
MANUAL



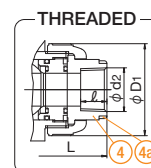
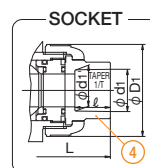
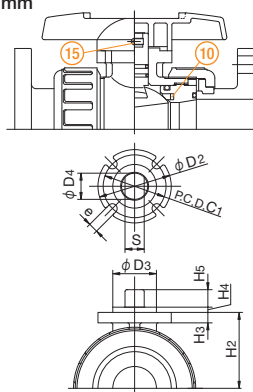
AUTOMATIC



PARTS LIST



65 mm - 100 mm



PART NO. / NAME	QTY	MATERIAL
① BODY	1	U-PVC, C-PVC, PP, PVDF
② BALL	1	U-PVC, C-PVC, PP, PVDF
③ UNION	2	U-PVC, C-PVC, PP, PVDF
④ END CONNECTOR	3	U-PVC, C-PVC, PP, PVDF
④a RING	3	SUS304 (Used for C-PVC 15-, 20-, or 25-mm threaded type)
⑤ UNION NUT	3	U-PVC, C-PVC, PP, PVDF

PART NO. / NAME	QTY	MATERIAL
⑥ STEM	1	U-PVC, C-PVC, PP, PVDF
⑦ SEAT	2	PTFE
⑧ O-RING (A)	3	EPDM, FKM, etc.
⑨ O-RING (B)	2	EPDM, FKM, etc.
⑩ O-RING (C)	2	EPDM, FKM, etc. (Used for 15 to 50 mm)
⑩ CUSHION	2	EPDM, FKM, etc. (Used for 65 - 100 mm)

PART NO. / NAME	QTY	MATERIAL
⑪ O-RING (D)	1	EPDM, FKM, etc.
⑫ O-RING (E)	1	EPDM, FKM, etc.
⑬ STOP RING	3	PVDF (Used for flanged type)
⑭ HANDLE	1	ABS
⑮ TAPPING SCREW (A)	1	SUS304 (Used for 65 to 100 mm)

COMPATIBLE ACTUATOR

AUTOMATIC

PNEUMATIC

TYPE TA

For detailed specifications, see P.123

ELECTRIC

TYPE T

For detailed specifications, see P.139

FLOW DIRECTION DIAGRAM FOR EACH HANDLE ROTATION ANGLE

MANUAL

AUTOMATIC

For details of flow direction diagram, see **OP.058**.

PRODUCT MODEL CODE LIST	ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
MANUAL	V	23	LV	*	*	*	*	***
	V	23	LV	U C P F	E V	S N P F	J D 1 5 A	015 15mm 100 100mm
	MANUAL VALVE	TYPE 23	LEVER TYPE	U-PVC C-PVC PP PVDF	EPDM FKM	SOCKET THREADED SPIGOT FLANGED	JIS DIN 10K 5K ANSI	

PRODUCT MODEL CODE LIST	ACTUATION	TYPE	ACTUATOR TYPE	ACTION / POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	SPACE HEATER
AUTOMATIC	A	23	*	*	*	*	*	*	***	OC*
	A	23	PNEUMATIC K TYPE TA ELECTRIC T TYPE T	PNEUMATIC F DOUBLE ACTING G AIR TO OPEN S AIR TO CLOSE ELECTRIC 1 Single-Phase 100V 2 Single-Phase 200V	U C P F	E V	S N P F	J D 1 5 A	015 15mm 100 100mm	OC OC
	AUTOMATIC VALVE	TYPE 23			U-PVC C-PVC PP PVDF	EPDM FKM	SOCKET THREADED SPIGOT FLANGED	JIS DIN JIS10K JIS5K ANSI		

* Indicate only for electric type only.

FLOW DIRECTION DIAGRAM **MANUAL** **AUTOMATIC**

THE DIRECTION OF FLOW IS SELECTABLE ACCORDING TO THE APPLICATION.

THREE TYPES OF VALVE ELEMENT (BALL) ARE AVAILABLE: "L PORT", "DOUBLE L PORT" AND "CROSS PORT".

THE DIRECTION OF FLOW CAN BE SWITCHED ACCORDING TO THE APPLICATION.

	COMPATIBLE ACTUATION METHOD	ROTATION ANGLE					BALL SHAPE
		0°	45°	90°	135°	180°	
L PORT (90° or 180°)	MANUAL ○ ELECTRIC △						
DOUBLE L PORT (90°)	MANUAL △ PNEUMATIC ○ ELECTRIC ○						
CROSS PORT (90° or 180°) * For 15 - 50 mm only.	MANUAL △ PNEUMATIC △ ELECTRIC △						

○ indicates standard products. △ indicates optional products.

* Our products are vertical type. The double L port and cross port cannot completely stop the flow in three directions. * For automatic valves, the direction of flow is determined as follows according to the operation system:

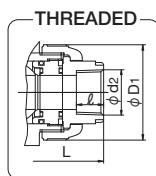
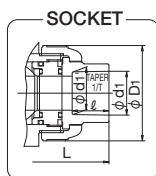
Air to open: Right opens during air supply. Air to close: Left opens during air supply. Double acting: Right opens during air supply on ① side. Left opens during air supply on ② side.

* Also for the solenoid valve, the right side opens when energized and the left side opens when de-energized.

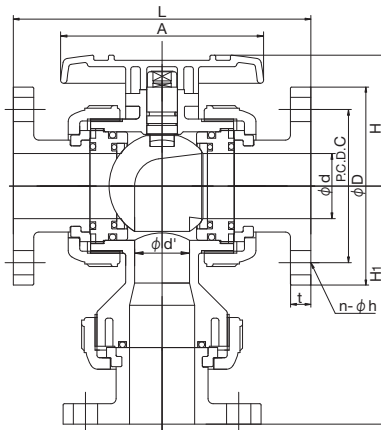
3 WAY BALL VALVE TYPE 23

TYPE—V23LV

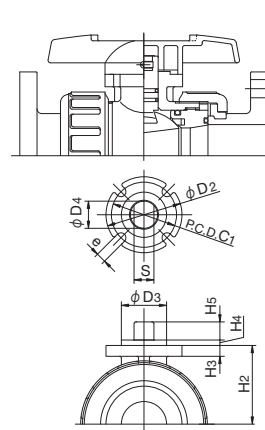
CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI SPIGOT—DIN



FLANGED



65 mm - 100 mm



■ JIS, DIN (Unit: mm)

mm	d	d'	D1	D2	D3	D4	C1	H	H2	H3	H4	H5	A	S	e
15	15	15	48	42	25	135	36	51.5	30.0	6	3	8	92	105	5.5
20	20	20	60	42	25	15	36	59.5	36.5	6	3	10	100	11	5.5
25	25	25	70	42	25	15	36	68.0	43.5	6	3	10	110	11	5.5
32	40	32	100	57	35	23	50	89.0	61.0	10	3	12	131	18	6.5
40	40	32	100	57	35	23	50	89.0	61.0	10	3	12	131	18	6.5
50	51	43	126	57	35	23	50	102.5	72.5	10	3	12	159	18	6.5
65	78	58	152	81	55	30	70	140.0	94.0	13	3	19	240	24	9.0
80	78	58	152	81	55	30	70	140.0	94.0	13	3	19	240	24	9.0
100	100	78	210	116	70	40	102	178.0	126.0	16	3	23	300	34	11.0

	JIS																								
mm	FLANGED												SOCKET								THREADED				
	JIS5K						JIS10K						U-PVC, C-PVC						PP						
	D	C	n	h	D	C	n	h	L	t	H ₁	d ₁	ℓ	1/T	L	H ₁	d ₁	d ₁ '	ℓ	L	H ₁	d ₂	ℓ	L	H ₁
15	80	60	4	12	95	70	4	15	143	12	94	22.11	20	1/34	108	77	21.2	20.2	20	108	77	Rc 1/2	15	102	74
20	85	65	4	12	100	75	4	15	172	14	115	26.13	24	1/34	128	93	26.2	25.2	23	126	92	Rc 3/4	17	120	89
25	95	75	4	12	125	90	4	19	187	14	133	32.16	27	1/34	145	112	33.0	32.0	25	141	110	Rc 1	20	131	105
32	115	90	4	15	135	100	4	19	212	16	165	38.19	30	1/34	174	146.5	-	-	-	-	-	Rc 1 1/4	22	163	141
40	120	95	4	15	140	105	4	19	212	16	165	48.21	37	1/37	189	154	47.0	46.0	28	171	145	Rc 1 1/2	25	163	141
50	130	105	4	15	155	120	4	19	234	16	187	60.25	42	1/37	220	180	59.0	58.0	28	192	166	Rc 2	28	197	168
65	155	130	4	15	175	140	4	19	304	18	256	76.60	61	1/48	316	261	74.25	73.96	31	264	235	Rc 2 1/2	32	264	235
80	180	145	4	19	185	150	8	19	304	18	256	89.60	64	1/49	316	261	89.2	88.85	35.5	258	232	Rc 3	35	264	235
100	200	165	8	19	210	175	8	19	372	18	305	114.70	84	1/56	418	328	109.05	108.65	41.5	340	289	Rc 4	45	360	299

mm	DIN																							
	FLANGED												SOCKET											
	DIN PN10						U-PVC, C-PVC						PP, PVDF(DIN)						THREADED					
	D	C	n	h	L	t	H1	d1	ℓ	L	H1	d1	d1'	ℓ	L	H1	d2	ℓ	L	H1	d3	d3'	ℓ	H1
15	95	65	4	14	130	12	88	20	16	102	72	19.50	19.30	14.5	99	71	Rp1/2	15	102	74	20	15	18.5	83
20	105	75	4	14	150	14	104	25	19	120	85	24.50	24.30	16	114	83	Rp3/4	17	120	89	25	20	24	99
25	115	85	4	14	160	14	120	32	22	131	104	31.50	31.30	18	123	100	Rp1	20	131	105	32	25	24.5	115
32	140	100	4	18	212	16	165	40	26	173	147	39.45	39.2	20.5	148	131	Rp1 1/4	22	163	141	-	-	-	-
40	150	110	4	18	200	16	159	50	31	163	142	49.45	49.20	23.5	148	131	Rp1 1/2	25	163	141	50	40	34	153
50	165	125	4	18	230	16	185	63	38	197	170	62.50	62.10	27.5	176	154	Rp2	28	197	168	63	51	38	178
65	185	145	4	18	304	18	256	75	44	282	245	74.25	73.95	31	256	227	Rp2 1/2	32	264	235	-	-	-	-
80	200	160	8	18	310	21	259	90	51	282	245	89.20	88.85	35.5	251	224	Rp3	35	264	235	90	80	51	252
100	220	180	8	18	350	18	305	110	61	349	305	109.05	108.65	41.5	310	279	Rp4	45	338	299	110	93.6	61	308

■ ANSI (Unit: inch)

mm	inch	d	d'	D1	D2	D3	D4	C1	H	H2	H3	H4	H5	A	S	e
1/2	15	0.59	0.59	1.89	1.65	0.98	0.53	1.42	2.03	1.18	0.24	0.12	0.31	3.62	0.41	0.22
3/4	20	0.79	0.79	2.36	1.65	0.98	0.59	1.42	2.34	1.44	0.24	0.12	0.39	3.94	0.43	0.22
1	25	0.98	0.98	2.76	1.65	0.98	0.59	1.42	2.68	1.71	0.24	0.12	0.39	4.33	0.43	0.22
1 1/4	32	1.57	1.26	3.94	2.24	1.38	0.91	1.97	3.50	2.40	0.39	0.12	0.47	5.16	0.71	0.26
1 1/2	40	1.57	1.26	3.94	2.24	1.38	0.91	1.97	3.50	2.40	0.39	0.12	0.47	5.16	0.71	0.26
2	50	2.01	1.69	4.96	2.24	1.38	0.91	1.97	4.04	2.85	0.39	0.12	0.47	6.26	0.71	0.26
2 1/2	65	3.07	2.28	5.98	3.19	2.17	1.18	2.76	5.51	3.70	0.51	0.12	0.75	9.45	0.94	0.35
3	80	3.07	2.28	5.98	3.19	2.17	1.18	2.76	5.51	3.70	0.51	0.12	0.75	9.45	0.94	0.35
4	100	3.94	3.07	8.27	4.57	2.76	1.57	4.02	7.01	4.96	0.63	0.12	0.91	11.81	1.34	0.43

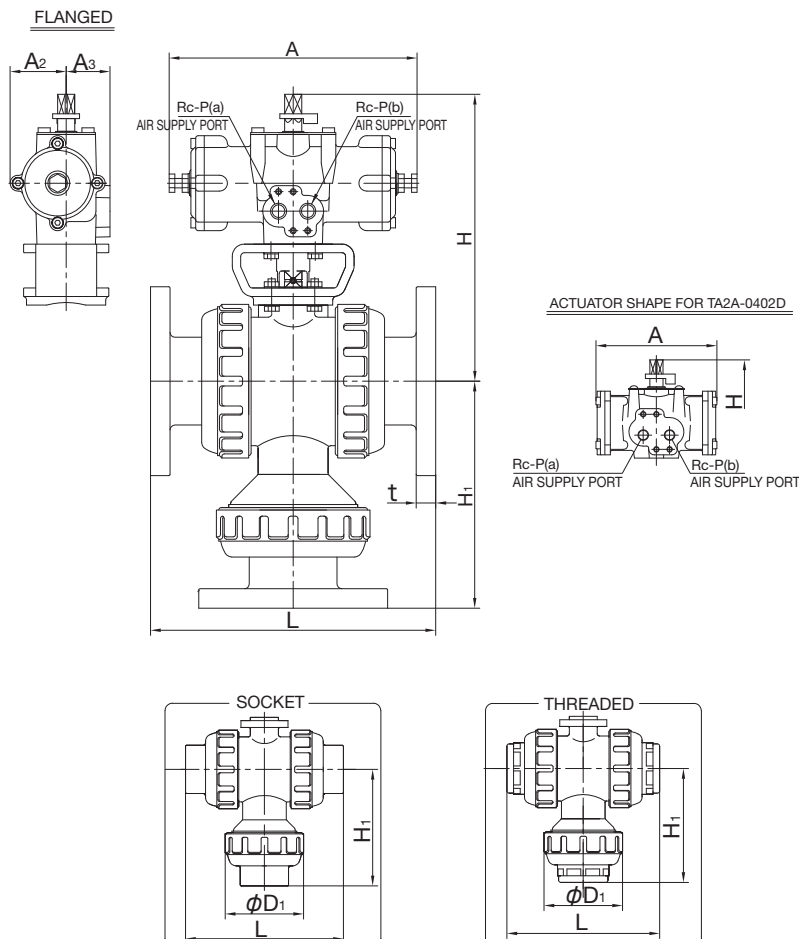
		ANSI																							
mm	inch	FLANGED							SOCKET											THREADED					
		ANSI CLASS 150				L	t	H ₁	U-PVC, C-PVC						PP, PVDF					d ₂	ℓ	L	H ₁		
		D	C	n	h				ASTM SCH40				ASTM SCH80				d ₁	ℓ	L					H ₁	
								d ₁	d ₁ '	ℓ	L	d ₁	d ₁ '	ℓ	L	H ₁	d ₁	ℓ	L	H ₁					
1/2	15	3.50	2.38	4	0.62	5.63	0.47	3.70	-	-	-	-	0.848	0.836	0.875	4.45	3.08	0.83	0.870	4.45	3.09	1/2-14 NPT	0.59	4.02	2.89
3/4	20	3.88	2.75	4	0.62	6.77	0.55	4.50	-	-	-	-	1.058	1.046	1.000	5.08	3.56	1.03	1.000	5.08	3.61	3/4-14 NPT	0.67	4.72	3.48
1	25	4.25	3.12	4	0.62	7.36	0.55	5.24	-	-	-	-	1.325	1.310	1.125	5.75	4.32	1.30	1.130	5.75	4.37	1-11 1/2 NPT	0.79	5.16	4.13
1 1/4	32	4.62	3.50	4	0.62	8.35	0.63	6.50	-	-	-	-	1.670	1.655	1.250	6.85	5.51	1.65	1.250	7.04	5.75	1 1/4-11 1/2 NPT	0.87	6.42	5.53
1 1/2	40	5.00	3.88	4	0.62	8.35	0.63	6.50	-	-	-	-	1.912	1.894	1.375	7.24	5.71	1.89	1.370	7.24	5.85	1 1/2-11 1/2 NPT	0.98	6.42	5.53
2	50	6.00	4.75	4	0.75	9.21	0.63	7.34	-	-	-	-	2.387	2.369	1.500	8.23	6.66	2.36	1.500	8.23	6.76	2-11 1/2 NPT	1.10	7.76	6.61
2 1/2	65	7.00	5.50	4	0.75	11.97	0.71	10.06	-	-	-	-	2.889	2.868	1.750	11.21	9.65	2.88	1.752	11.21	9.65	2 1/2-8 NPT	1.26	10.39	9.25
3	80	7.50	6.00	4	0.75	11.97	0.71	10.06	-	-	-	-	3.516	3.492	1.875	11.10	9.59	3.48	1.874	11.10	11.10	3-8 NPT	1.38	10.39	9.25
4	100	9.00	7.50	8	0.75	14.66	0.71	12.01	4.518	4.491	2.000	13.90	-	-	-	-	11.58	4.48	2.252	14.37	14.37	4-8 NPT	1.77	14.17	11.77



3 WAY BALL VALVE TYPE 23

TYPE—A23K

CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
15mm (1/2inch)	TA2A-0402D
20mm (3/4inch)	
25mm (1inch)	
32mm (1 1/4inch)	TA2A-050D
40mm (1 1/2inch)	
50mm (2inch)	
65mm (2 1/2inch)	TA2A-063D
80mm (3inch)	
100mm (4inch)	TA2A-080D

For detailed specifications, see **P.123**

■ JIS, DIN (Unit: mm)

mm	D ₁	H	H ₁	A	A ₂	A ₃	P	JIS												DIN											
								FLANGED JIS10K				SOCKET				THREADED				FLANGED DIN PN10				SOCKET				THREADED			
								L	t	H ₁	U-PVC, C-PVC	L	H ₁	PP	L	H ₁	L	H ₁	L	t	H ₁	U-PVC, C-PVC	L	H ₁	PP	L	H ₁	L	H ₁	L	H ₁
15	48	159.5	29	110	25	32	1/8	143	12	94	108	77	108	77	102	74	130	12	88	102	72	99	71	102	74	102	74	102	74	102	74
20	60	166	35	110	25	32	1/8	172	14	115	128	93	126	92	120	89	150	14	104	120	85	114	83	120	89	120	89	120	89	120	89
25	70	173	39	110	25	32	1/8	187	14	133	145	112	141	110	131	105	160	14	120	131	104	123	100	131	105	131	105	131	105	131	105
32	100	224	55	210	46	36	1/4	212	16	165	174	154	-	-	163	141	212	16	165	173	147	148	131	163	141	163	141	163	141	163	141
40	100	224	55	210	46	36	1/4	212	16	165	189	154	171	145	163	141	200	16	159	163	142	148	131	163	141	163	141	163	141	163	141
50	126	235.5	66	210	46	36	1/4	234	16	187	220	180	192	166	197	168	230	16	185	197	170	176	154	197	168	197	168	197	168	197	168
65	152	277	85	250	57	38	1/4	304	18	256	316	261	264	235	264	235	304	18	256	282	245	256	227	264	235	264	235	264	235	264	235
80	152	277	85	250	57	38	1/4	304	18	256	316	261	258	232	264	235	310	21	259	282	245	251	224	264	235	264	235	264	235	264	235
100	210	348	110	292	71	45	1/4	372	18	305	418	328	340	289	360	299	350	18	305	349	305	310	279	338	299	338	299	338	299	338	299

■ ANSI (Unit: inch)

mm	inch	D ₁	H	H ₁	A	A ₂	A ₃	P	ANSI												ANSI											
									FLANGED ANSI CLASS150				SOCKET				THREADED				FLANGED ANSI CLASS150				SOCKET				THREADED			
									L	t	H ₁	U-PVC, C-PVC	L	H ₁	PP, PVDF	L	H ₁	L	H ₁	L	t	H ₁	U-PVC, C-PVC	L	H ₁	PP, PVDF	L	H ₁	L	H ₁	L	H ₁
1/2	15	1.89	6.28	1.14	4.33	0.98	1.26	1/8	5.63	0.47	3.70	4.45	3.08	4.45	3.09	4.02	2.89	5.63	0.47	3.70	4.45	3.08	4.45	3.09	4.02	2.89	5.63	0.47	3.70	4.45	3.08	4.45
3/4	20	2.36	6.54	1.38	4.33	0.98	1.26	1/8	6.77	0.55	4.50	5.08	3.56	5.08	3.61	4.72	3.48	6.77	0.55	4.50	5.08	3.56	5.08	3.61	4.72	3.48	6.77	0.55	4.50	5.08	3.56	5.08
1	25	2.76	6.81	1.54	4.33	0.98	1.26	1/8	7.36	0.55	5.24	5.75	4.32	5.75	4.37	5.16	4.13	7.36	0.55	5.24	5.75	4.32	5.75	4.37	5.16	4.13	7.36	0.55	5.24	5.75	4.32	5.75
1 1/4	32	3.94	8.82	2.17	8.27	1.81	1.42	1/4	8.35	0.63	6.50	6.85	5.51	7.04	5.75	6.42	5.53	8.35	0.63	6.50	7.24	5.71	7.24	5.85	6.42	5.53	8.35	0.63	6.50	7.24	5.71	7.24
1 1/2	40	3.94	8.82	2.17	8.27	1.81	1.42	1/4	8.35	0.63	6.50	7.24	5.71	7.24	5.85	6.42	5.53	8.35	0.63	6.50	7.24	5.71	7.24	5.85	6.42	5.53	8.35	0.63	6.50	7.24	5.71	7.24
2	50	4.96	9.27	2.60	8.27	1.81	1.42	1/4	9.21	0.63	7.34	8.23	6.66	8.23	6.76	7.76	6.61	9.21	0.63	7.34	8.23	6.66	8.23	6.76	7.76	6.61	9.21	0.63	7.34	8.23	6.66	8.23
2 1/2	65	5.98	10.91	3.35	9.84	2.24	1.50	1/4	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25	11.97	0.71	10.06	11.21	9.65	10.39
3	80	5.98	10.91	3.35	9.84	2.24	1.50	1/4	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25	11.97	0.71	10.06	11.21	9.65	10.39
4	100	8.27	13.70	4.33	11.50	2.80	1.77	1/4	14.66	0.71	12.01	13.90	11.58	14.37	14.37	14.17	11.77	14.66	0.71	12.01	13.90	11.58	14.37	14.37	14.17	11.77	14.66	0.71	12.01	13.90	11.58	14.37

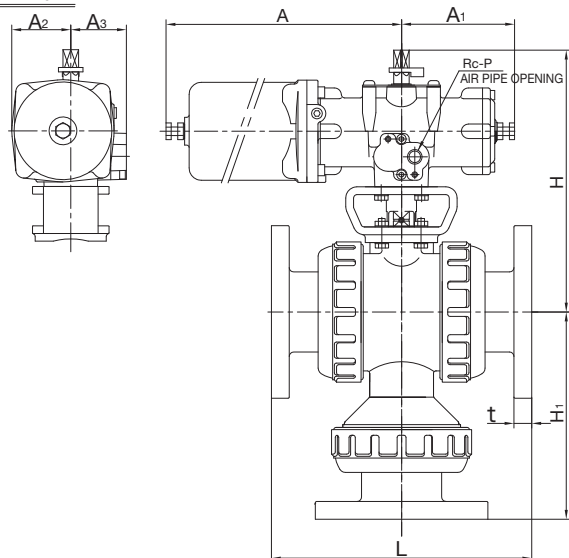


3 WAY BALL VALVE TYPE 23

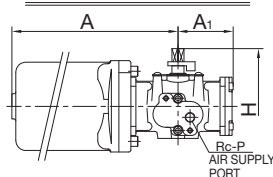
TYPE—A23K

CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI

FLANGED



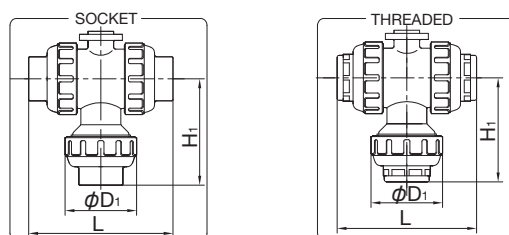
ACTUATOR SHAPE FOR TA2A-0402R



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
15mm (1/2inch)	TA2A-0402R
20mm (3/4inch)	
25mm (1inch)	
32mm (1 1/4inch)	TA2A-050R
40mm (1 1/2inch)	
50mm (2inch)	TA2A-063R
65mm (2 1/2inch)	
80mm (3inch)	TA2A-080R
100mm (4inch)	

For detailed specifications, see **P.123**



■ JIS, DIN (Unit: mm)

JIS, DIN (Unit: mm)									JIS								DIN									
mm	D ₁	H	H ₁	A	A ₁	A ₂	A ₃	P	FLANGED JIS10K			SOCKET				THREADED		FLANGED DIN PN10			SOCKET				THREADED	
									L	t	H ₁	U-PVC, C-PVC		PP		L	H ₁	L	H ₁	L	t	H ₁	U-PVC, C-PVC		PP	
15	48	159.5	29	190	55	42	49	1/8	143	12	94	108	77	108	77	102	74	130	12	88	102	72	99	71	102	74
20	60	161.5	35	190	55	42	49	1/8	172	14	115	128	93	126	92	120	89	150	14	104	120	85	114	83	120	89
25	70	168.5	39	190	55	42	49	1/8	187	14	133	145	112	141	110	131	105	160	14	120	131	104	123	100	131	105
32	100	224	55	240	105	53	50	1/4	212	16	165	174	154	-	-	163	141	212	16	165	173	147	148	131	163	141
40	100	224	55	240	105	53	50	1/4	212	16	165	189	154	171	145	163	141	200	16	159	163	142	148	131	163	141
50	126	235.5	66	240	105	53	50	1/4	234	16	187	220	180	192	166	197	168	230	16	185	197	170	176	154	197	168
65	152	277	85	288	125	67	52	1/4	304	18	256	316	261	264	235	264	235	304	18	256	282	245	256	227	264	235
80	152	277	85	288	125	67	52	1/4	304	18	256	316	261	258	232	264	235	310	21	259	282	245	251	224	264	235
100	210	348	110	341	146	82.5	59	1/4	372	18	305	418	328	340	289	360	299	350	18	305	349	305	310	279	338	299

■ ANSI (Unit: inch)

■ ANSI (Unit: inch)										ANSI								
mm	inch	D ₁	H	H ₁	A	A ₁	A ₂	A ₃	P	FLANGED ANSI CLASS150			SOCKET				THREADED	
										L	t	H ₁	U-PVC, C-PVC		PP, PVDF		L	H ₁
													L	H ₁	L	H ₁	L	H ₁
1/2	15	1.89	6.28	1.14	7.48	2.17	1.65	1.93	1/8	5.63	0.47	3.70	4.45	3.08	4.45	3.09	4.02	2.89
3/4	20	2.36	6.36	1.38	7.48	2.17	1.65	1.93	1/8	6.77	0.55	4.50	5.08	3.56	5.08	3.61	4.72	3.48
1	25	2.76	6.63	1.54	7.48	2.17	1.65	1.93	1/8	7.36	0.55	5.24	5.75	4.32	5.75	4.37	5.16	4.13
1 1/4	32	3.94	8.82	2.17	9.45	4.13	2.09	1.97	1/4	8.35	0.63	6.50	6.85	5.51	7.04	5.75	6.42	5.53
1 1/2	40	3.94	8.82	2.17	9.45	4.13	2.09	1.97	1/4	8.35	0.63	6.50	7.24	5.71	7.24	5.85	6.42	5.53
2	50	4.96	9.27	2.60	9.45	4.13	2.09	1.97	1/4	9.21	0.63	7.34	8.23	6.66	8.23	6.76	7.76	6.61
2 1/2	65	5.98	10.91	3.35	11.34	4.92	2.64	2.05	1/4	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25
3	80	5.98	10.91	3.35	11.34	4.92	2.64	2.05	1/4	11.97	0.71	10.06	11.10	9.59	11.10	11.10	10.39	9.25
4	100	8.27	13.70	4.33	13.43	5.75	3.25	2.32	1/4	14.66	0.71	12.01	13.90	11.58	14.37	14.37	14.17	11.77

AUTOMATIC

ELECTRIC

TYPE T

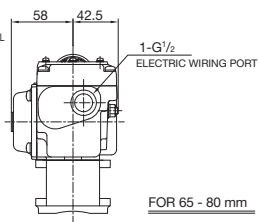
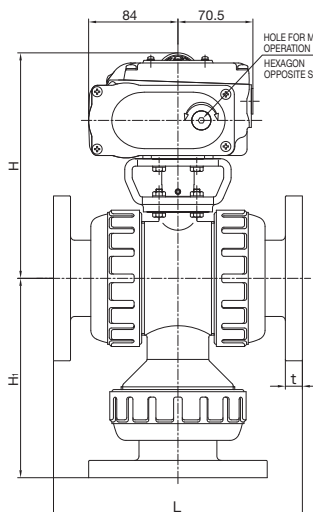
Single-Phase 100V
Single-Phase 200V

3 WAY BALL VALVE TYPE 23

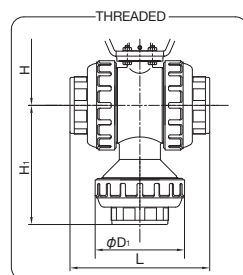
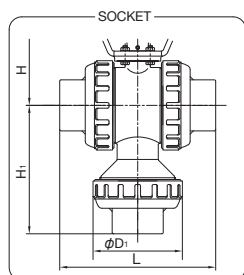
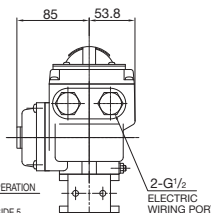
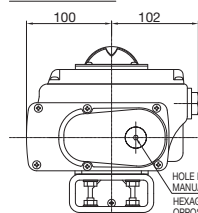
TYPE—A23T

CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI

FLANGED FOR 15 - 50 mm



FOR 65 - 80 mm



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
15mm (1/2inch)	T-00
20mm (3/4inch)	
25mm (1inch)	
32mm (1 1/4inch)	
40mm (1 1/2inch)	
50mm (2inch)	T-0
65mm (2 1/2inch)	
80mm (3inch)	
100mm (4inch)	

For detailed specifications, see P.139

JIS, DIN (Unit: mm)

JIS, DIN (Unit: mm)			JIS										DIN									
mm	D ₁	H	FLANGED JIS10K			SOCKET				THREADED			FLANGED DIN PN10			SOCKET				THREADED		
			L	t	H ₁	U-PVC, C-PVC		PP		L	H ₁	L	H ₁	L	t	H ₁	U-PVC, C-PVC		L	PP	L	H ₁
						L	H ₁	L	H ₁								L	H ₁				
15	48	169.5	143	12	94	108	77	108	77	102	74	130	12	88	102	72	99	71	102	74		
20	60	176	172	14	115	128	93	126	92	120	89	150	14	104	120	85	114	83	120	89		
25	70	183	187	14	133	145	112	141	110	131	105	160	14	120	131	104	123	100	131	105		
32	100	200.5	212	16	165	174	154	-	-	163	141	212	16	165	173	147	148	131	163	141		
40	100	200.5	212	16	165	189	154	171	145	163	141	200	16	159	163	142	148	131	163	141		
50	126	212	234	16	187	220	180	192	166	197	168	230	16	185	197	170	176	154	197	168		
65	152	289	304	18	256	316	261	264	235	264	235	304	18	256	282	245	256	227	264	235		
80	152	289	304	18	256	316	261	258	232	264	235	310	21	259	282	245	251	224	264	235		
100	210	327	372	18	305	418	328	340	289	360	299	350	18	305	349	305	310	279	338	299		

ANSI (Unit: inch)

ANSI (Unit: inch)				ANSI									
inch	mm	D ₁	H	FLANGED ANSI CLASS150			SOCKET				THREADED		
				L	t	H ₁	U-PVC, C-PVC		PP, PVDF		L	H ₁	
							L	H ₁	L	H ₁			
1/2	15	1.89	6.67	5.63	0.47	3.70	4.45	3.08	4.45	3.09	4.02	2.89	
3/4	20	2.36	6.93	6.77	0.55	4.50	5.08	3.56	5.08	3.61	4.72	3.48	
1	25	2.76	7.20	7.36	0.55	5.24	5.75	4.32	5.75	4.37	5.16	4.13	
1 1/4	32	3.94	7.89	8.35	0.63	6.50	6.85	5.51	7.04	5.75	6.42	5.53	
1 1/2	40	3.94	7.89	8.35	0.63	6.50	7.24	5.71	7.24	5.85	6.42	5.53	
2	50	4.96	8.35	9.21	0.63	7.34	8.23	6.66	8.23	6.76	7.76	6.61	
2 1/2	65	5.98	11.38	11.97	0.71	10.06	11.21	9.65	11.21	9.65	10.39	9.25	
3	80	5.98	11.38	11.97	0.71	10.06	11.10	9.59	11.10	11.10	10.39	9.25	
4	100	8.27	12.87	14.66	0.71	12.01	13.90	11.58	14.37	14.37	14.17	11.77	

3 WAY BALL VALVE TYPE 23 H

- HORIZONTAL 3 WAY BALL VALVE
- T-SHAPED FLOW PATH ALLOWS FOR EASY SWITCHING OF FLOW CHANNEL.
- END CONNECTOR AND UNION NUT ARE COMPATIBLE WITH 3 WAY BALL VALVE TYPE 23.

BASIC SPECIFICATIONS

VALVE TYPE

3 WAY BALL VALVE TYPE 23H

SIZE

25 mm—40 mm (1 inch—1 1/2 inch)

BODY MATERIAL

PP

SEAL MATERIAL / SEAT

PTFE

O-RING

EPDM FKM etc.

CONNECTION / FLANGED

JIS10K, DIN PN10, ANSI CLASS150

SOCKET

JIS, DIN, ANSI

THREADED

Rc, Rp, NPT

	FLUID TEMPERATURE	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm²)	CONNECTION METHOD		
			FLANGED	SOCKET	THREADED
PP	-20℃ ~ 80℃	1.0 {10.2}	○	○	○

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. Cannot completely stop the flow in three directions.
* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.



PARTS LIST

MANUAL

FLANGED

SOCKET

THREADED

PART NO. / NAME	QTY	MATERIAL
1 BODY	1	PP
2 BALL	1	PP
3 UNION	3	PP
4 END CONNECTOR	3	PP
5 UNION NUT	3	PPG
6 STEM	1	PP

PART NO. / NAME	QTY	MATERIAL
7 SEAT	4	PTFE
8 O-RING (A)	3	EPDM, FKM, etc.
9 O-RING (B)	3	EPDM, FKM, etc.
10 O-RING (C)	3	EPDM, FKM, etc.
11 O-RING (D)	1	EPDM, FKM, etc.
12 O-RING (E)	1	EPDM, FKM, etc.

PART NO. / NAME	QTY	MATERIAL
13 STOP RING	3	PVDF (Used for flanged type.)
14 HANDLE	1	ABS

FLOW DIRECTION DIAGRAM

MANUAL

063

PRODUCT MODEL
CODE LIST

MANUAL

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
V	3H	LV	P	*	*	*	***
...	...	...	...	...	...	...	...
V MANUAL VALVE	3H 23H	LV LEVER TYPE	PP PP	E EPDM V FKM	S SOCKET N THREADED P SPIGOT F FLANGED	J JIS D DIN A ANSI 1 10K	025 25mm 032 32mm 040 40mm

NOTE (1) The available ball shape is T port only. (2) The socket and spigot types are weld type.
(3) Not compatible with 32-mm spigot type and JIS socket type. (4) Parts compliant with connection standards other than JIS (such as ANSI and DIN) are also available.

MANUAL

3 WAY BALL VALVE TYPE 23 H

TYPE—V3HLV

CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI SPIGOT—DIN

FLANGED

