

3WAY BALL VALVE Type 23

(Pneumatic Type AR)

Features

- Compact & light weight
- All-plastic design ensures excellent corrosion resistance.
- Easy to mount and unmount the actuator (one-touch connection)
- Comes with bottom stand to facilitate mounting on racks and panels
Handy tab-hole attachment.
- Air supply compatible with NAMUR standard
- (By the use of conversion adapter <Actuator type: AR032, AR040>)
- 5 colors available for immediate line identification.
- (Red<Standard>, Blue, Yellow, White, Green)



Basic specifications

- Valve Type : 3way Ball Valve Type 23 (Type AR)
- Size : 15 mm — 100 mm (1/2 inch — 4 inch)
- Body Material : U-PVC (Conforming to ASTM D1784 Cell Classification 12454A)
C-PVC (Conforming to ASTM D1784 Cell Classification 23567-A)
PP (Conforming to ASTM D4101 Cell Classification PP0110B67272)
PVDF (Conforming to ASTM D3222 Cell Classification Type II)
- Seal Material / O-ring : EPDM, FKM etc.
- Connection / Flanged : JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150
Socket : JIS, DIN, ASTM D2466 SCH40/80
Threaded : Rc, Rp, NPT
Spigot : DIN
- Port : DOUBLE L PORT

Body Material	Fluid Temperature °C {°F}	Maximum working pressure (Normal temperature) MPa {psi}	Connection method			
			Flanged	Socket	Threaded	Spigot
U-PVC	0 ~ 50 { 30~120 }	1.0 { 150 }	○	○	○	○
C-PVC	0 ~ 90 { 30~195 }	1.0 { 150 }	○	○	○	-
PP	-20 ~ 80 { -5~175 }	1.0 { 150 }	○	○	○	○
PVDF	-20 ~ 100 { -5~210 }	1.0 { 150 }	○	○	○	○

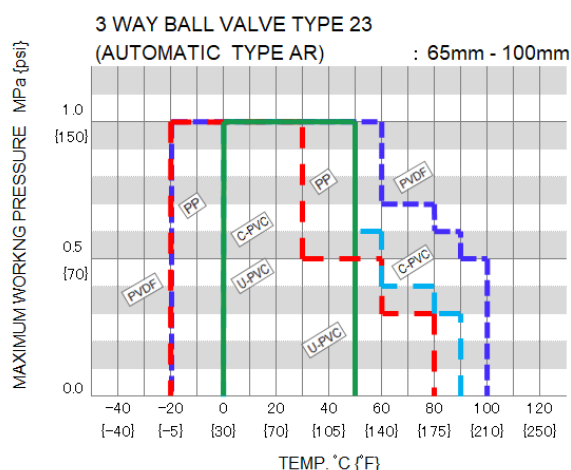
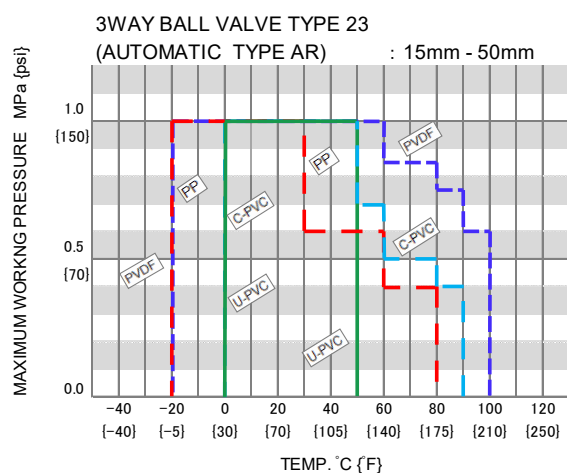
Note::

(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 can 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.

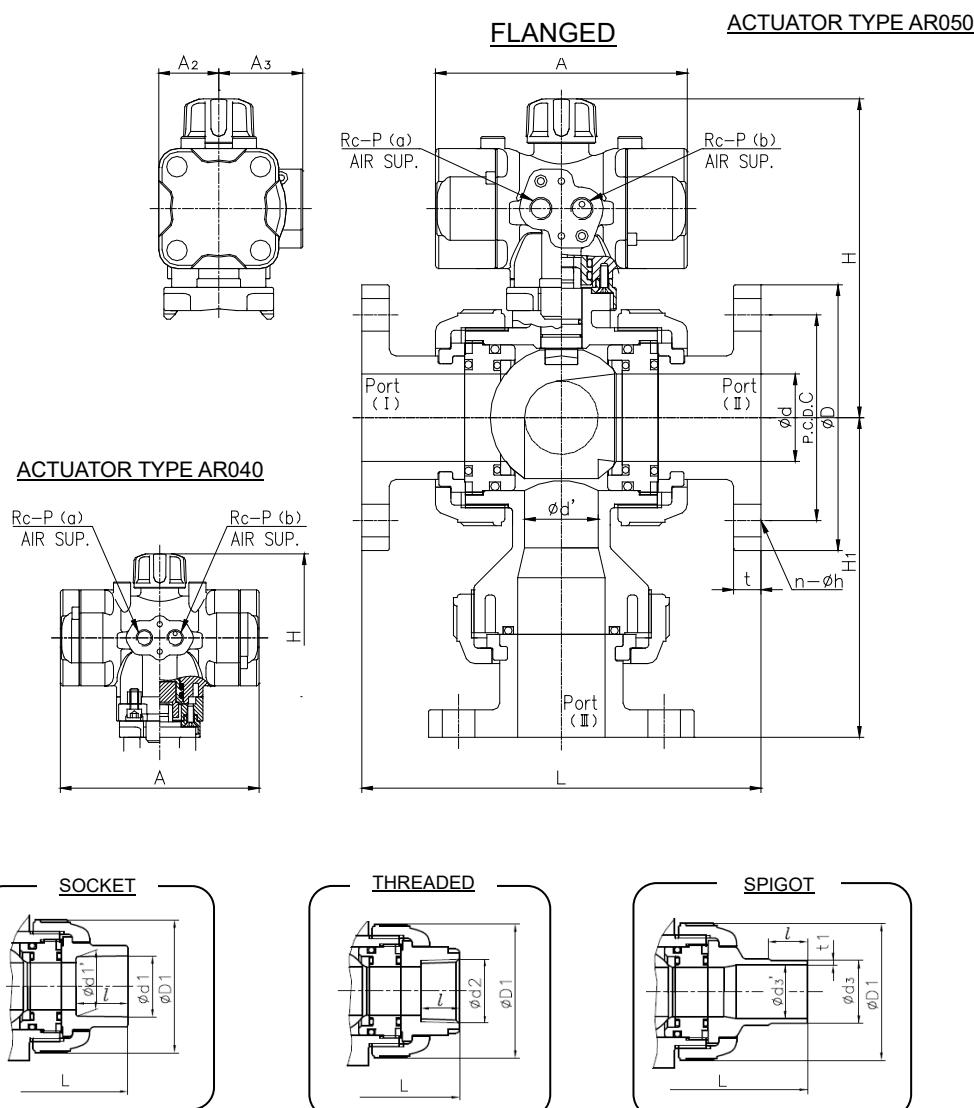
* Concerning the allowable pressure for each temperature, material and actuator type, see the technical documents at the next page of this sheet.

Working pressure vs. Temperature



Product dimension

[DOUBLE ACTING]



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

DATASHEET

■JIS, DIN (Unit: mm)

mm	inch	d	D ₁	H	A	A ₂	A ₃	P
15	1/2	15	48	131	116	28	38	1/8
20	3/4	20	60	137.5	116	28	38	1/8
25	1	25	70	144.5	116	28	38	1/8
32	1 1/4	40	100	174.5	147	35	49	1/4
40	1 1/2	40	100	174.5	147	35	49	1/4
50	2	51	126	186.0	147	35	49	1/4
65	2 1/2	78	152	247	188	42.5	57	1/4
80	3	78	152	247	188	42.5	57	1/4
100	4	100	210	307	281	58.5	59	1/4

ACTUATOR SELECTION CHART *

mm	inch	ACTUATOR TYPE
15	1/2	AR040DA20SN
20	3/4	AR040DA20SN
25	1	AR040DA20SN
32	1 1/4	AR050DA30SN
40	1 1/2	AR050DA30SN
50	2	AR050DA30SN
65	2 1/2	AR063DA40SN
80	3	AR063DA40SN
100	4	AR070DA40SN

■JIS (Unit: mm)

mm	inch	FLANGED														SOCKET										THREADED					
		JIS 5K				JIS 10K				L		t	H ₁	PVC, C-PVC					PP					d ₂	l	L					
		D	C	n	h	D	C	n	h	U-PVC C-PVC	PP			PVDF	d ₁	l	1/T	L	H ₁	d ₁	d ₁ '	l	L			H ₁	U-PVC C-PVC	PP	PVDF	H	
15	1/2	80	60	4	12	95	70	4	15	143	143	143	12	94	22.11	20	1/34	109	77	21.2	20.2	20	108	77	Rc 1/2	15	102	102	102	74	
20	3/4	85	65	4	12	100	75	4	15	172	172	172	14	115	26.13	24	1/34	128	93	26.2	25.2	23	126	92	Rc 3/4	17	120	120	120	89	
25	1	95	75	4	12	125	90	4	19	187	187	187	14	133	32.16	27	1/34	145	112	33.0	32.0	25	141	110	Rc 1	20	131	131	131	105	
32	1 1/4	115	90	4	15	135	100	4	19	212	212	212	16	165	38.19	30	1/34	174	146.5	-	-	-	-	-	Rc 1 1/4	22	163	163	163	141	
40	1 1/2	120	95	4	15	140	105	4	19	212	212	212	16	165	48.21	37	1/37	189	154	47.0	46.0	28	171	145	Rc 1 1/2	25	163	163	163	141	
50	2	130	105	4	15	155	120	4	19	234	234	234	16	187	60.25	42	1/37	220	180	59.0	58.0	28	192	166	Rc 2	28	197	197	197	168	
65	2 1/2	155	130	4	15	175	140	4	19	304	304	304	18	256	76.60	61	1/48	316	261	75.00	73.00	35	264	235	Rc2 1/2	32	264	264	264	235	
80	3	180	145	4	19	185	150	8	19	304	304	304	18	256	89.60	64	1/49	316	261	88.00	85.00	35	258	232	Rc 3	35	264	264	264	235	
100	4	200	165	8	19	210	175	8	19	372	372	372	18	305	114.70	84	1/56	418	328	113.00	110.00	45	340	289	Rc 4	45	360	360	360	299	

■DN (Unit: mm)

DIN (EN 1074)		FLANGED													SOCKET											THREADED					SPIGOT										
mm	inch	DIN PN10				L				t	H ₁	PVC, C-PVC				PP, PVDF							d ₂	/	U-PVC C-PVC	L				PVC					PP, PVDF						
		D	C	n	h	U-PVC C-PVC	PP	PVDF	d ₁			/	L	H ₁	d ₁	d ₁ '	/	PP	PVDF	H ₁	d ₃	d ₃ '				/	L	H ₁	d ₃	/	PP	PVDF	PP	PVDF	L	H ₁					
15	1/2	95	65	4	14	130	130	130	12	88	20	16	102	72	19.5	19.3	14.5	99	99	71	Rp 1/2	15	102	102	102	74	20	15	18.5	124	83	20	18.5	2.5	1.9	124	124	83			
20	3/4	105	75	4	14	150	150	150	14	104	25	19	120	85	24.5	24.3	16.0	114	114	83	Rp 3/4	17	120	120	120	89	25	20	24	144	99	25	22	2.7	1.9	144	144	99			
25	1	115	85	4	14	160	160	160	14	120	32	22	131	104	31.5	31.3	18.0	123	123	100	Rp 1	20	131	131	131	105	32	25	24.5	154	115	32	22.5	3.0	2.4	154	154	115			
32	1 1/4	140	100	4	16	212	212	212	16	165	40	26	173	147	39.5	39.2	20.5	148	148	131	Rp 1 1/4	22	163	163	163	141	-	-	-	-	-	-	-	-	-	-	-	-			
40	1 1/2	150	110	4	18	200	200	200	16	159	50	31	163	142	49.5	49.2	23.5	148	148	131	Rp 1 1/2	25	163	163	163	141	50	40	34	194	153	50	32	4.6	3.0	194	194	153			
50	2	165	125	4	18	230	230	230	16	185	63	38	197	170	62.5	62.1	27.5	176	176	154	Rp 2	28	197	197	197	168	63	51	38	224	178	63	36	5.8	3.0	224	224	178			
65	2 1/2	185	145	4	18	304	304	304	18	256	75	44	282	245	74.25	73.95	31	256	256	227	Rp2 1/2	32	264	264	264	235	-	-	-	-	-	-	-	-	-	-	-	-	-		
80	3	200	160	8	18	310	310	310	21	259	90	51	282	245	89.20	88.85	35.5	251	251	224	Rp 3	35	264	264	264	235	90	80	51	295	252	90	38	8.2	4.3	295	295	246			
100	4	220	180	8	18	350	350	350	18	305	110	61	349	305	109.05	108.65	41.5	310	310	279	Rp 4	45	338	338	338	299	110	93.6	61	353	308	110	44.5	10.0	5.3	353	353	301			

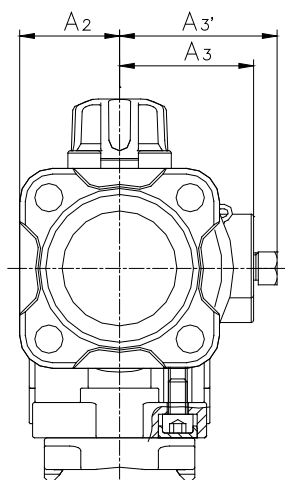
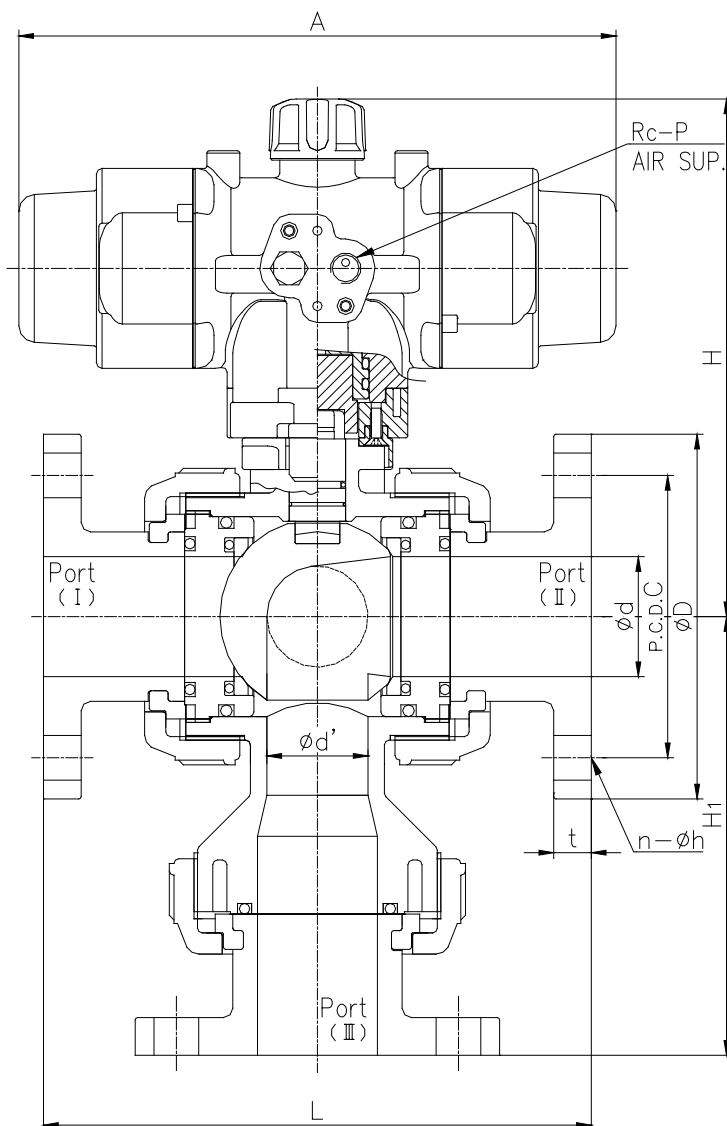
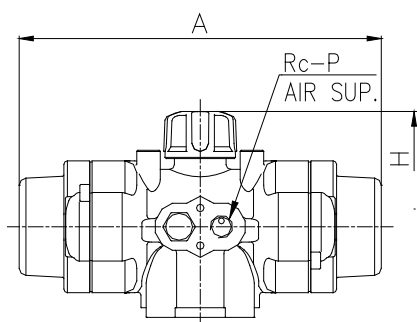
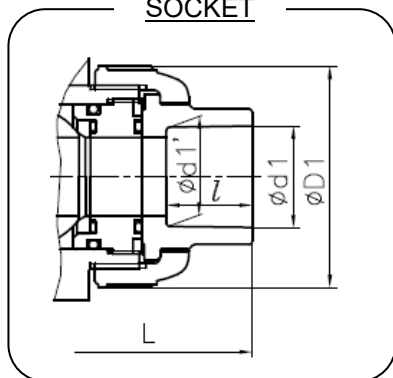
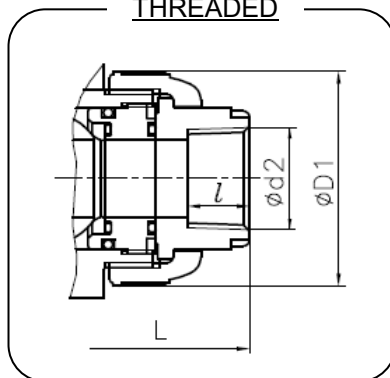
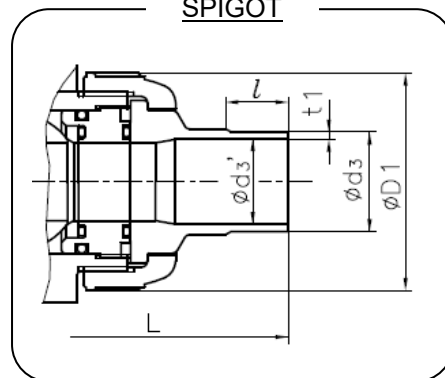
■ANSI (Unit: inch)

inch	mm	d	D ₁	H	A	A ₂	A ₃	P
1/2	15	0.59	1.89	5.16	4.57	1.10	1.50	1/8
3/4	20	0.79	2.36	5.41	4.57	1.10	1.50	1/8
1	25	0.98	2.76	5.69	4.57	1.10	1.50	1/8
1 1/4	32	1.57	3.94	6.87	5.79	1.38	1.93	1/4
1 1/2	40	1.57	3.94	6.87	5.79	1.38	1.93	1/4
2	50	2.01	4.96	7.32	5.79	1.38	1.93	1/4
2 1/2	65	3.07	5.98	9.06	7.40	1.67	2.24	1/4
3	80	3.07	5.98	9.06	7.40	1.67	2.24	1/4
4	100	3.94	8.27	12.09	11.06	2.30	2.32	1/4

■ANSI (Unit: inch)

inches (mm)		FLANGED										SOCKET (IPS)														THREADED							
		ANSI Class 150				L			t	H ₁	PVC, C-PVC				PP, PVDF						d ₂	/	L			h							
		D	C	n	h	U-PVC C-PVC	PP	PVDF			ASTM SCH40				ASTM SCH80				L				H ₁										
											d ₁	d ₁ '	I	L	d ₁	d ₁ '	I	L	H ₁	d ₁				/	PP		PVDF						
1/2	15	3.50	2.38	4	0.62	5.63	5.63	5.63	0.47	3.70	-	-	-	-	0.848	0.836	0.875	4.45	3.08	0.83	0.87	4.45	4.45	3.09	1/2 - 14NPT	0.59	4.02	4.02	4.02	2.89			
3/4	20	3.88	2.75	4	0.62	6.77	6.77	6.77	0.55	4.50	-	-	-	-	1.058	1.046	1.000	5.08	3.56	1.03	1.00	5.08	5.08	3.61	3/4 - 14NPT	0.67	4.72	4.72	4.72	3.48			
1	25	4.25	3.12	4	0.62	7.36	7.36	7.36	0.55	5.24	-	-	-	-	1.325	1.310	1.125	5.75	4.32	1.30	1.13	5.75	5.75	4.37	1 - 11 1/2NPT	0.79	5.16	5.16	5.16	4.13			
1 1/4	32	4.62	3.50	4	0.62	8.35	8.35	8.35	0.63	6.50	-	-	-	-	1.670	1.655	1.250	6.85	5.51	1.65	1.25	7.04	7.04	5.75	1 1/4 - 11 1/2NPT	0.87	6.42	6.42	6.42	5.53			
1 1/2	40	5.00	3.88	4	0.62	8.35	8.35	8.35	0.63	6.50	-	-	-	-	1.912	1.894	1.375	7.24	5.71	1.89	1.37	7.24	7.24	5.85	1 1/2 - 11 1/2NPT	0.98	6.42	6.42	6.42	5.53			
2	50	6.00	4.75	4	0.75	9.21	9.21	9.21	0.63	7.34	-	-	-	-	2.387	2.369	1.500	8.23	6.66	2.36	1.50	8.23	8.23	6.76	2 - 11 1/2NPT	1.10	7.76	7.76	7.76	6.61			
2 1/2	65	7.00	5.50	4	0.75	11.97	11.97	11.97	0.71	10.06	-	-	-	-	2.889	2.868	1.750	11.21	9.65	2.88	1.752	11.21	11.21	9.65	2 1/2-8 NPT	1.26	10.39	10.39	10.39	9.25			
3	80	7.50	6.00	4	0.75	11.97	11.97	11.97	0.71	10.06	-	-	-	-	3.516	3.492	1.875	11.10	9.59	3.48	1.874	11.10	11.10	11.10	9.59	3-8 NPT	1.38	10.39	10.39	10.39	9.25		
4	100	9.00	7.50	8	0.75	14.65	14.65	14.65	0.71	12.01	4.518	4.491	2.000	13.90	-	-	-	-	11.58	4.48	2.252	14.37	14.37	14.37	4-8 NPT	1.77	14.17	14.17	14.17	11.77			

[AIR TO OPEN]
[AIR TO CLOSE]

FLANGEDACTUATOR TYPE (AR050, AR063)ACTUATOR TYPE (AR040)SOCKETTHREADEDSPIGOT

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

■JIS, DIN (Unit: mm)

mm	inch	d	D ₁	H	A	A ₂	A ₃	A ₃ '	P
15	1/2	15	48	131	154	28	38	46	1/8
20	3/4	20	60	137.5	154	28	38	46	1/8
25	1	25	70	169	194	35	49	59	1/4
32	1 1/4	40	100	208.5	254	42.5	57	67	1/4
40	1 1/2	40	100	208.5	254	42.5	57	67	1/4
50	2	51	126	220	254	42.5	57	67	1/4
65	2 1/2	78	152	268	438	58.5	59	69	1/4
80	3	78	152	268	438	58.5	59	69	1/4
100	4	100	210	349	569	82	82	92	1/4

ACTUATOR SELECTION CHART *

mm	inch	ACTUATOR TYPE	
		AIR TO OPEN	AIR TO CLOSE
15	1/2	AR040NC20SN	
20	3/4	AR040NC20SN	
25	1	AR050NC30SN	
32	1 1/4	AR063NC40SN	
40	1 1/2	AR063NC40SN	
50	2	AR063NC40SN	
65	2 1/2	AR070NC40SN	
80	3	AR070NC40SN	
100	4	AR100NC22SN	

■JIS (Unit: mm)

mm	inch	FLANGED														SOCKET														THREADED							
		JIS 5K				JIS 10K				L			t	H ₁	PVC, C-PVC					PP				d ₂	l	L				H ₁							
		D	C	n	h	D	C	n	h	U-PVC C-PVC	PP	PVDF			d ₁	l	1/T	L	H ₁	d ₁	d ₁ '	l	L			H ₁	U-PVC C-PVC	PP	PVDF								
15	1/2	80	60	4	12	95	70	4	15	143	143	143	12	94	22.11	20	1/34	109	77	21.2	20.2	20	108	77	Rc 1/2	15	102	102	102	74							
20	3/4	85	65	4	12	100	75	4	15	172	172	172	14	115	26.13	24	1/34	128	93	26.2	25.2	23	126	92	Rc 3/4	17	120	120	120	89							
25	1	95	75	4	12	125	90	4	19	187	187	187	14	133	32.16	27	1/34	145	112	33.0	32.0	25	141	110	Rc 1	20	131	131	131	105							
32	1 1/4	115	90	4	15	135	100	4	19	212	212	212	16	165	38.19	30	1/34	174	146.5	-	-	-	-	-	Rc 1 1/4	22	163	163	163	141							
40	1 1/2	120	95	4	15	140	105	4	19	212	212	212	16	165	48.21	37	1/37	189	154	47.0	46.0	28	171	145	Rc 1 1/2	25	163	163	163	141							
50	2	130	105	4	15	155	120	4	19	234	234	234	16	187	60.25	42	1/37	220	180	59.0	58.0	28	192	166	Rc 2	28	197	197	197	168							
65	2 1/2	155	130	4	15	175	140	4	19	304	304	304	18	256	76.60	61	1/48	316	261	75.00	73.00	35	264	235	Rc 2 1/2	32	264	264	264	235							
80	3	180	145	4	19	185	150	8	19	304	304	304	18	256	89.60	64	1/49	316	261	88.00	85.00	35	258	232	Rc 3	35	264	264	264	235							
100	4	200	165	8	19	210	175	8	19	372	372	372	18	305	114.70	84	1/56	418	328	113.00	110.00	45	340	289	Rc 4	45	360	360	360	299							

■DIN (Unit: mm)

mm	inch	FLANGED										SOCKET										THREADED										SPIGOT									
		DINPN10				L						PVC, C-PVC				PP, PVDF						L						PVC					PP, PVDF								
		D	C	n	h	U-PVC C-PVC	PP	PVDF	t	H ₁	d ₁	/	L	H ₁	d ₁	d ₁ '	/	PP	PVDF	H ₁	d ₂	/	U-PVC C-PVC	PP	PVDF	H ₁	d ₃	d ₃ '	/	L	H ₁	d ₃	/	PP	PVDF	PP	L	PVDF			
15	1/2	95	65	4	14	130	130	130	12	88	20	16	102	72	19.5	19.3	14.5	99	99	71	Rp 1/2	15	102	102	102	74	20	15	18.5	124	83	20	18.5	2.5	1.9	124	124	83			
20	3/4	105	75	4	14	150	150	150	14	104	25	19	120	85	24.5	24.3	16.0	114	114	83	Rp 3/4	17	120	120	120	89	25	20	24	144	99	25	22	2.7	1.9	144	144	99			
25	1	115	85	4	14	160	160	160	14	120	32	22	131	104	31.5	31.3	18.0	123	123	100	Rp 1	20	131	131	131	105	32	25	24.5	154	115	32	22.5	3.0	2.4	154	154	115			
32	1 1/4	140	100	4	16	212	212	212	16	165	40	26	173	147	39.5	39.2	20.5	148	148	131	Rp 1 1/4	22	163	163	163	141	-	-	-	-	-	-	-	-	-	-	-	-	-		
40	1 1/2	150	110	4	18	200	200	200	16	159	50	31	163	142	49.5	49.2	23.5	148	148	131	Rp 1 1/2	25	163	163	163	141	50	40	34	194	153	50	32	4.6	3.0	194	194	153			
50	2	165	125	4	18	230	230	230	16	185	63	38	197	170	62.5	62.1	27.5	176	176	154	Rp 2	28	197	197	197	168	63	51	38	224	178	63	36	5.8	3.0	224	224	178			
65	2 1/2	185	145	4	18	304	304	304	18	256	75	44	282	245	74.25	73.95	31	256	256	227	Rp2 1/2	32	264	264	264	235	-	-	-	-	-	-	-	-	-	-	-	-	-		
80	3	200	160	8	18	310	310	310	21	259	90	51	282	245	89.20	88.85	35.5	251	251	227	Rp 3	35	264	264	264	235	90	80	51	299	252	90	38	8.2	4.3	295	295	246			
100	4	220	180	8	18	350	350	350	18	305	110	61	349	305	109.05	108.65	41.5	310	310	279	Rp 4	45	338	338	338	299	110	93.6	61	358	308	110	44.5	10.0	5.3	353	353	301			

■ANSI (Unit: inch)

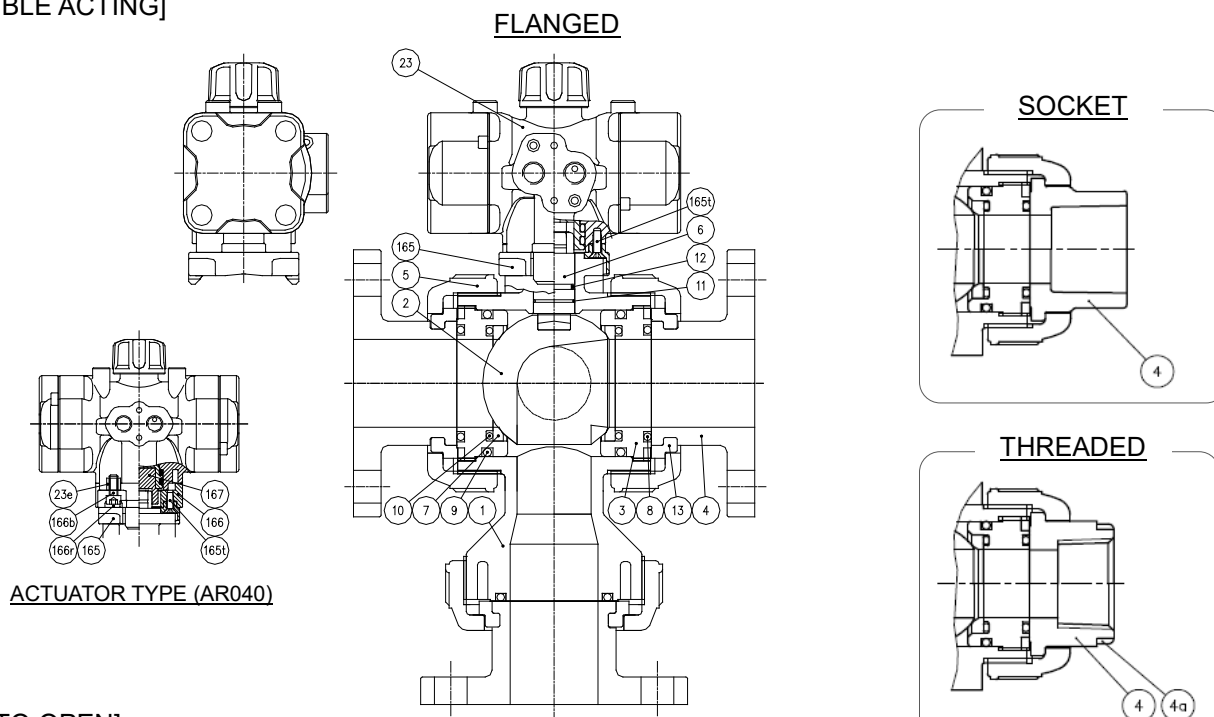
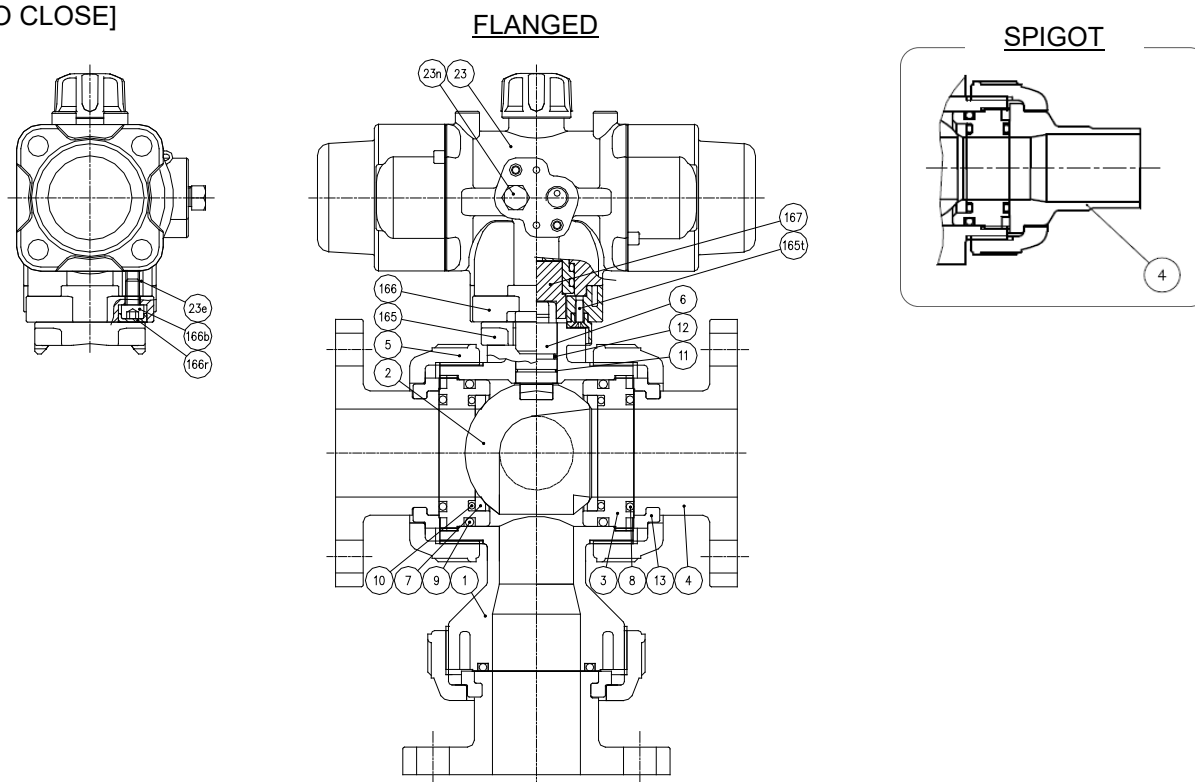
inch	mm	d	D ₁	H	A	A ₂	A ₃	A ₃ '	P
1/2	15	0.59	1.89	5.16	6.06	1.10	1.50	1.81	1/8
3/4	20	0.79	2.36	5.41	6.06	1.10	1.50	1.81	1/8
1	25	0.98	2.76	6.65	7.64	1.38	1.93	2.32	1/4
1 1/4	32	1.57	3.94	8.21	10.00	1.67	2.24	2.64	1/4
1 1/2	40	1.57	3.94	8.21	10.00	1.67	2.24	2.64	1/4
2	50	2.01	4.96	8.66	10.00	1.67	2.24	2.64	1/4
2 1/2	65	3.07	5.98	9.72	17.24	2.30	2.32	2.72	1/4
3	80	3.07	5.98	9.72	17.24	2.30	2.32	2.72	1/4
4	100	3.94	8.27	13.74	22.40	3.23	3.23	3.62	1/4

■ANSI (Unit: inch)

inch		mm		FLANGED										SOCKET (PS)																		THREADED							
				ANSI Class 150				L						PVC, C-PVC				PVC, C-PVC				PP, PVDF												L					
				D	C	n	h	U-PVC C-PVC	PP	PVDF	t	H ₁	ASTM SCH40			L	ASTM SCH80			L	H ₁	d ₁	l	L		H ₁	d ₂	l	L		PVDF	H ₁	d ₂	l	U-PVC C-PVC	PP	PVDF	H ₁	
													d ₁	d ₁ '	l		d ₁	d ₁ '	l																				
1/2	15	3.50	2.38	4	0.62	5.63	5.63	5.63	0.47	3.70	-	-	-	-	0.848	0.836	0.875	4.45	3.08	0.83	0.87	4.45	4.45	3.09	1/2 - 14NPT	0.59	4.02	4.02	4.02	2.89									
3/4	20	3.88	2.75	4	0.62	6.77	6.77	6.77	0.55	4.50	-	-	-	-	1.058	1.046	1.000	5.08	3.56	1.03	1.00	5.08	5.08	3.61	3/4 - 14NPT	0.67	4.72	4.72	4.72	3.48									
1	25	4.25	3.12	4	0.62	7.36	7.36	7.36	0.55	5.24	-	-	-	-	1.325	1.310	1.125	5.75	4.32	1.30	1.13	5.75	5.75	4.37	1 - 11 1/2NPT	0.79	5.16	5.16	5.16	4.13									
1 1/4	32	4.62	3.50	4	0.62	8.35	8.35	8.35	0.63	6.50	-	-	-	-	1.670	1.655	1.250	6.85	5.51	1.65	1.25	7.04	7.04	5.75	1 1/4 - 11 1/2NPT	0.87	6.42	6.42	6.42	5.53									
1 1/2	40	5.00	3.88	4	0.62	8.35	8.35	8.35	0.63	6.50	-	-	-	-	1.912	1.894	1.375	7.24	5.71	1.89	1.37	7.24	7.24	5.85	1 1/2 - 11 1/2NPT	0.98	6.42	6.42	6.42	5.53									
2	50	6.00	4.75	4	0.75	9.21	9.21	9.21	0.63	7.34	-	-	-	-	2.387	2.369	1.500	8.23	6.66	2.36	1.50	8.23	8.23	6.76	2 - 11 1/2NPT	1.10	7.76	7.76	7.76	6.61									
2 1/2	65	7.00	5.50	4	0.75	11.97	11.97	11.97	0.71	10.06	-	-	-	-	2.889	2.868	1.750	11.21	9.65	2.88	1.752	11.21	11.21	9.65	2 1/2-8 NPT	1.26	10.39	10.39	10.39	9.25									
3	80	7.50	6.00	4	0.75	11.97	11.97	11.97	0.71	10.06	-	-	-	-	3.516	3.492	1.875	11.10	9.59	3.48	1.874	11.10	11.10	11.10	3-8 NPT	1.38	10.39	10.39	10.39	9.25									
4	100	9.00	7.50	8	0.75	14.65	14.65	14.65	0.71	12.01	4.518	4.491	2.000	13.90	-	-	-	-	11.58	4.48	2.252	14.37	14.37	14.37	4-8 NPT	1.77	14.17	14.17	14.17	11.77									

Parts list

[DOUBLE ACTING]

[AIR TO OPEN]
[AIR TO CLOSE]

PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1 BODY	1	PVC, C-PVC, PP, PVDF	10 O-RING (C)	2	EPDM, FKM ,others	165 BASE PLATE	1	PPG
2 BALL	1	PVC, C-PVC, PP, PVDF	11 O-RING (D)	1	EPDM, FKM ,others	165t TAPPING (No.165)	2	STAINLESS STEEL
3 CARRIER	2	PVC, C-PVC, PP, PVDF	12 O-RING (E)	1	EPDM, FKM ,others	166 CONNECTOR PLATE	1	PPG
4 END CONNECTOR	3	PVC, C-PVC, PP, PVDF	13 STOP RING	3	PVDF	166b BOLT (No.166)	4	STAINLESS STEEL
5 UNION NUT	3	PVC, C-PVC, PP, PVDF	23 ACTUATOR	1	Used for Flanged Type.	166r CAP(No.166)	4	EPDM
6 STEM	1	PVC, C-PVC, PP, PVDF			167 SHAFT ADAPTER	1	COPPER ALLOY	
7 SEAT	2	PTFE			4a RING	3	STAINLESS STEEL	
8 O-RING (A)	2	EPDM, FKM ,others	23e ENZAT(No.23)	4	COPPER ALLOY	Used for C-PVC Body.		
9 O-RING (B)	2	EPDM, FKM ,others	23n NIPPLE	1	PPG	Threaded Type:15-25mm(1/2"-1")		

Technical Data of Actuator

Options are easily removable/ replaceable and can be mounted later.

Air piping is compatible with NAMUR standard. (AR040 use NAMUR conversion plate.)

DOUBLE ACTING	ACTUATOR TYPE				UNIT
	AR040DA	AR050DA	AR063DA	AR070DA	
ANGLE ADJUSTMENT	No angle adjustment is available.				
OPERATING PRESSURE	0.4-0.7				MPa
AIR CONSUMPTION	0.6	1.3	1.8	5.1	NL/OPEN & CLOSE (0.4 MPa)
AIR SUPPLY BORE	Rc1/8	Rc1/4			

AIR TO OPEN AIR TO CLOSE	ACTUATOR TYPE					UNIT
	AR040NC	AR050NC	AR063NC	AR070NC	AR100NC	
ANGLE ADJUSTMENT	No angle adjustment is available.					
OPERATING PRESSURE	0.4-0.7					MPa
AIR CONSUMPTION	0.2	0.4	0.8	2.5	5.9	NL/OPEN & CLOSE (0.4 MPa)
AIR SUPPLY BORE	Rc1/8	Rc1/4				

OPTION COMBINATION

COMBINATION NO.	1	2	3	4	5	6	7	8	9	10	11
SOLENOID VALVE *1	○	—	—	—	○	○	○	—	—	—	—
FILTER REGULATOR	—	—	—	—	○	—	○	—	—	○	—
SPEED CONTROLLER *2	◎	○	◎	—	◎	◎	◎	◎	○	—	—
BYPASS VALVE *2	◎	—	○	—	◎	◎	◎	○	—	—	—
LIMIT SWITCH BOX *3	—	—	—	○	—	○	○	○	○	—	—
PNEUMATIC COUNTER	—	—	—	—	—	—	—	—	—	—	○

*1 Equipped with a built-in speed controller and bypass valve.

*2 ◎ indicates solenoid valve-dedicated type.

*3 When using the limit switch at 1 to 100 mA or 5 to 30V, contact our sales office in your area.

OPTION LIST	MANUFACTURER	BASIC SPECIFICATIONS
SOLENOID VALVE NAMUR	KONAN	• WATER PROOF, EXPLOSION PROOF • POWER SOURCE AC100V, AC110V, AC200V, AC220V, DC24V
FILTER REGULATOR	KONAN	
SPEED CONTROLLER	SMC	• Since a solenoid valve has a built-in exhaust valve, when a solenoid valve is mounted, no speed controller is necessary.
BYPASS VALVE (SPEED CONTROLLER)	KONAN	
LIMIT SWITCH BOX	PRISMA	• WATER PROOF
PNEUMATIC COUNTER	ASAHI YUKIZAI	
DISMOUNT LEVER	ASAHI YUKIZAI	

Product weight

TYPE 23 Type AR (Standard)

UNIT : kg

mm	inch	AIR TO OPEN / AIR TO CLOSE											
		FLANGED				THREADED				SOCKET, SPIGOT			
		U-PVC	C-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF
15	1/2	1.1	1.1	1.0	1.4	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9
20	3/4	1.4	1.5	1.2	1.6	0.9	1.0	0.9	1.1	1.0	1.0	0.9	1.1
25	1	2.4	2.5	2.0	2.6	1.7	1.7	1.5	1.9	1.7	1.7	1.5	1.9
32	1 1/4	4.2	4.4	3.5	5.0	3.4	3.5	3.0	4.0	3.3	3.4	-	4.0
40	1 1/2	4.2	4.4	3.5	5.0	3.4	3.5	3.0	4.0	3.3	3.4	3.0	4.0
50	2	5.5	5.7	4.0	6.0	4.6	4.8	3.5	4.5	4.5	4.8	3.5	4.5
65	2 1/2	11.1	9.9	8.5	12.6	9.6	10.1	7.6	10.6	9.9	9.9	7.6	10.6
80	3	11.0	10.0	8.4	12.5	9.5	10.0	7.5	10.5	10.0	10.0	7.6	11.0
100	4	25.0	25.0	20.0	27.5	24.0	25.0	19.5	26.5	24.5	25.0	19.5	26.5

UNIT : kg

mm	inch	DOUBLE ACTING											
		FLANGED				THREADED				SOCKET, SPIGOT			
		U-PVC	C-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF
15	1/2	1.0	1.0	0.9	1.3	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.8
20	3/4	1.3	1.4	1.1	1.5	0.8	0.9	0.8	1.0	0.9	0.9	0.8	1.0
25	1	1.8	1.9	1.4	2.0	1.1	1.1	0.9	1.3	1.1	1.1	0.9	1.3
32	1 1/4	3.0	3.2	2.3	3.8	2.2	2.3	1.8	2.8	2.1	2.2	-	2.8
40	1 1/2	3.0	3.2	2.3	3.8	2.2	2.3	1.8	2.8	2.1	2.2	1.8	2.8
50	2	4.3	4.5	2.8	4.8	3.4	3.6	2.3	3.3	3.3	3.6	2.3	3.3
65	2 1/2	8.5	7.3	5.9	10.0	7.0	7.5	5.0	8.0	7.3	7.3	5.0	8.0
80	3	8.4	7.4	5.8	9.9	6.9	7.4	4.9	7.9	7.4	7.4	5.0	8.4
100	4	17.5	17.5	12.5	20.0	16.5	17.5	12.0	19.0	17.0	17.5	12.0	19.0

Product model code list

ACTUATION	TYPE	ACTUATOR TYPE	ACTION	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
A	**	L	*	*	*	*	***	***
A AUTOMATIC VALVE	23 TYPE 23	L TYPE AR	F DOUBLE ACTING G AIR TO OPEN S AIR TO CLOSE	U U-PVC C C-PVC P PP F PVDF	E EPDM V FKM	S SOCKET * N THREADED P SPIGOT F FLANGED	J JIS D DIN A ANSI 1 JIS 10K 5 JIS 5K	015 15mm 100 100mm

* PP and PVDF socket types are weld type.

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please contact our nearest distribution agent or sales office.