

PRODUCT MODEL CODE LIST	ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	HIGH PURITY SERIES
MANUAL	V	**	LV	*	*	*	*	***	1
	V MANUAL VALVE	21 TYPE 21 2A TYPE 21α	LV LEVER TYPE	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 JIS10K 5 5K	015 15mm 100 100mm	1 LUBRICANT FREE

PRODUCT MODEL CODE LIST	ACTUATION	TYPE	ACTUATOR TYPE	ACTION / POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	SPACE HEATER	HIGH PURITY SERIES
AUTOMATIC	A	**	*	*	*	*	*	*	***	OC※	1
	A AUTO-MATIC VALVE	21 TYPE 21 2A TYPE 21α	PNEUMATIC K TYPE TA A TYPE AA 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 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 JIS10K 5 JIS5K	015 15mm 100 100mm	OC OC * Indicate only for electric type only.	1 LUBRICANT FREE

NOTE (1) PP and PVDF socket types are weld type. Note, however, that JIS PP 32-mm socket type is not produced.
(2) PVDF socket type compatible with the JIS standard is not available.
(3) A handle set with a lock mechanism (for malfunction prevention) is available as an option.

Compatibility of face-to-face dimensions

Both valve face-to-face dimensions and body face-to-face dimensions are compatible between type 21α and conventional type 21. Also, a change to type 21α is available using the end connector and union nut for the existing piping (type 21).

Compatibility of parts

Some of the body component parts are not compatible between type 21α and type 21. Be careful when parts are changed on site. For details of parts compatibility, contact our sales office in your area.

Identification of product

[Difference between products] (See Fig. 1.) The body appearance of type 21α is different from that of type 21 to discriminate between them.

Related materials

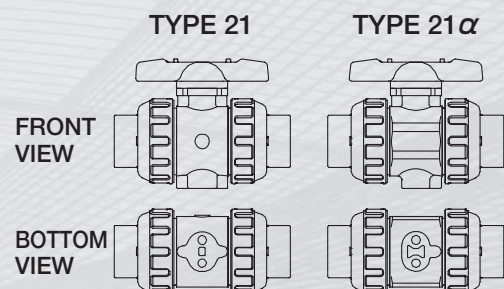
Due to the modification and release of type 21α, some parts of related materials, such as outline drawing, instruction manual, and set parts list, have been revised.

Please obtain the latest version at our sales office in your area.

Performance and options

There is no change in the performance (relationship between the working pressure and temperature, Cv value, chemical resistance, etc.) and options between type 21 and 21α.

Fig. 1: Difference between products

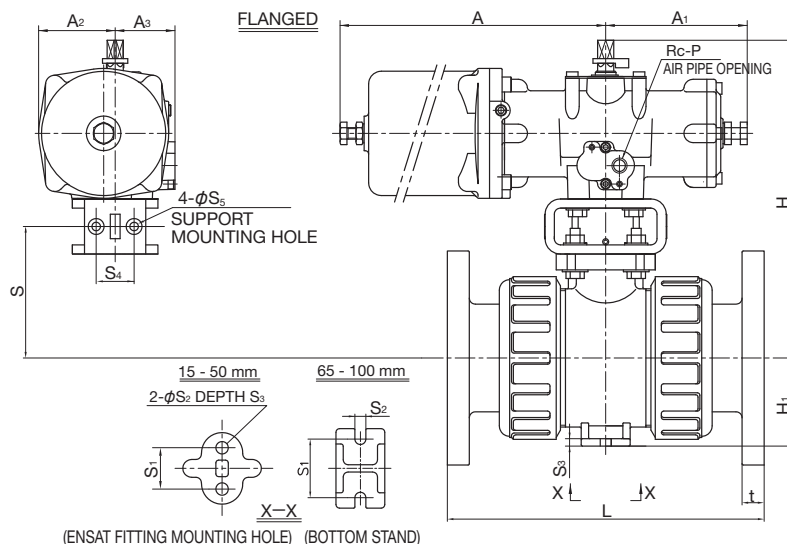




BALL VALVE TYPE 21, 21α

TYPE—A21K, A2AK

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



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)	
65mm (2 1/2inch)	TA2A-063R
80mm (3inch)	
100mm (4inch)	TA2A-080R

For detailed specifications, see P.124

■ JIS, DIN (Unit: mm)

mm	D1	H	H1	A	A1	A2	A3	S	S1	S2	S3	S4	S5	P
15	48	159.5	29	194	55	46	46	-	19	7.3	11	-	-	1/4
20	60	166	35	194	55	46	46	-	19	7.3	11	-	-	1/4
25	70	173	39	194	55	46	46	-	19	7.3	11	-	-	1/4
32	82	182	47	194	55	46	46	-	30	9	15	-	-	1/4
40	100	224	55	240	105	53	50	-	30	9	15	-	-	1/4
50	126	235.5	66	240	105	53	50	-	30	9	15	-	-	1/4
65	133	268	72	288	125	67	52	107.5	48	9	6	32	7	1/4
80	152	277	85	288	125	67	52	116.5	55	11	7	32	7	1/4
100	210	348	110	341	146	82.5	59	151.5	65	11	8	42	9	1/4

mm	JIS									DIN												
	FLANGED JIS5K, JIS10K				SOCKET		THREADED			FLANGED DIN PN10/PN16				SOCKET			THREADED			SPIGOT		
	L				L		L			L				L			L			L		
	U-PVC C-PVC	PP	PVDF	t	U-PVC C-PVC	PP	U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF	t	U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF	U-PVC	PP	PVDF
10	-	-	-	-	-	-	-	-	-	120	119	119	12	99	96	96	99	98	98	114	114	114
15	143	143	143	12	109	108	102	100	100	130	130	130	12	102	99	99	102	100	100	124	124	124
20	172	172	172	14	128	126	120	119	119	150	150	150	14	119	113	113	120	119	119	144	144	144
25	187	187	187	14	145	141	131	130	130	160	160	160	14	131	123	123	131	130	130	154	154	154
32	190	190	190	16	162	-	150	146	146	180	180	180	16	150	139	139	150	146	146	174	174	174
40	212	212	212	16	189	171	163	160	160	200	200	200	16	164	149	149	163	160	160	194	194	194
50	234	234	234	16	220	192	197	194	194	230	230	230	16	197	176	176	197	194	194	224	224	224
65	261	257	256	18	273	219	215	213	212	290	288	287	18	233	205	204	215	213	212	285	245	244
80	306	305	302	18	316	257	265	264	261	312	311	308	21	284	252	249	265	264	261	299	296	293
100	374	374	369	18	419	341	362	362	357	352	352	347	18	351	312	307	340	340	335	358	355	350

■ ANSI (Unit: inch)

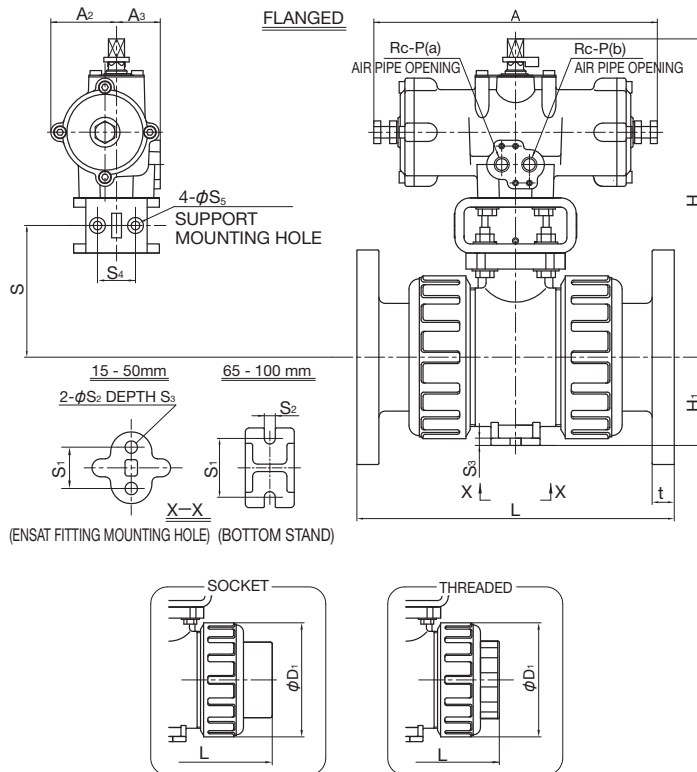
ANSI (Unit: inch)																ANSI												
inch	mm	D ₁	H	H ₁	A	A ₁	A ₂	A ₃	S	S ₁	S ₂	S ₃	S ₄	S ₅	P	FLANGED ANSI CLASS150				SOCKET			THREADED					
																L			t	U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF
																U-PVC C-PVC	PP	PVDF										
1/2	15	1.89	6.28	1.14	7.64	2.17	1.81	1.81	-	0.75	0.29	0.43	-	-	1/4	5.63	5.63	5.63	0.47	4.45	4.45	4.45	4.02	4.02	4.02			
3/4	20	2.36	6.54	1.38	7.64	2.17	1.81	1.81	-	0.75	0.29	0.43	-	-	1/4	6.77	6.77	6.77	0.55	5.08	5.08	5.08	4.72	4.72	4.72			
1	25	2.76	6.81	1.54	7.64	2.17	1.81	1.81	-	0.75	0.29	0.43	-	-	1/4	7.36	7.36	7.36	0.55	5.75	5.75	5.75	5.16	5.16	5.16			
1 1/4	32	3.23	7.17	1.85	7.64	2.17	1.81	1.81	-	1.18	0.35	0.59	-	-	1/4	7.48	7.48	7.48	0.63	6.46	6.46	6.46	5.91	5.91	5.91			
1 1/2	40	3.94	8.82	2.17	9.45	4.13	2.09	1.97	-	1.18	0.35	0.59	-	-	1/4	8.35	8.35	8.35	0.63	7.24	7.24	7.24	6.42	6.42	6.42			
2	50	4.96	9.27	2.60	9.45	4.13	2.09	1.97	-	1.18	0.35	0.59	-	-	1/4	9.21	9.21	9.21	0.63	8.23	8.23	8.23	7.76	7.76	7.76			
2 1/2	65	5.24	10.55	2.83	11.34	4.92	2.64	2.05	4.23	1.89	0.35	0.24	1.26	0.28	1/4	10.20	10.12	10.08	0.71	9.45	9.37	9.33	8.46	8.39	8.35			
3	80	5.98	10.91	3.35	11.34	4.92	2.64	2.05	4.59	2.17	0.43	0.28	1.26	0.28	1/4	12.05	12.01	11.89	0.71	11.14	11.10	10.98	10.43	10.39	10.28			
4	100	8.27	13.70	4.33	13.43	5.75	3.25	2.32	5.96	2.56	0.43	0.31	1.65	0.35	1/4	14.72	14.72	14.53	0.71	13.86	14.37	14.13	14.25	14.25	14.06			



BALL VALVE TYPE 21, 21α

TYPE—A21K, A2AK

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



ACTUATOR SELECTION CHART

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

For detailed specifications, see **P.124**

■ JIS, DIN (Unit: mm)

mm	D ₁	H	H ₁	A	A ₂	A ₃	S	S ₁	S ₂	S ₃	S ₄	S ₅	P
15	48	159.5	29	110	25	32	-	19	7.3	11	-	-	1/8
20	60	166	35	110	25	32	-	19	7.3	11	-	-	1/8
25	70	173	39	110	25	32	-	19	7.3	11	-	-	1/8
32	82	182	47	110	25	32	-	30	9	15	-	-	1/8
40	100	224	55	210	46	46	-	30	9	15	-	-	1/4
50	126	235.5	66	210	46	46	-	30	9	15	-	-	1/4
65	133	268	72	250	57	38	107.5	48	9	6	32	7	1/4
80	152	277	85	250	57	38	116.5	55	11	7	32	7	1/4
100	210	348	110	292	71	45	151.5	65	11	8	42	9	1/4

	JIS										DIN														
mm	FLANGED JIS5K, JIS10K					SOCKET			THREADED		FLANGED DIN PN10/PN16					SOCKET			THREADED			SPIGOT			
	L				t	L		L		t	L				t	L		L		L					
	U-PVC C-PVC	PP	PVDF			U-PVC C-PVC	PP	U-PVC C-PVC	PP		PVDF	U-PVC C-PVC	PP	PVDF			U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF	U-PVC	PP	PVDF
15	143	143	143		12	109	108	102	100	100		130	130	130		12	109	99	99	102	100	100	124	124	124
20	172	172	172		14	128	126	120	119	119		150	150	150		14	128	113	113	120	119	119	144	144	144
25	187	187	187		14	145	141	131	130	130		160	160	160		14	145	123	123	131	130	130	154	154	154
32	190	190	190		16	162	-	150	146	146		180	180	180		16	162	139	139	150	146	146	174	174	174
40	212	212	212		16	189	171	163	160	160		200	200	200		16	189	149	149	163	160	160	194	194	194
50	234	234	234		16	220	192	197	194	194		230	230	230		16	220	176	176	197	194	194	224	224	224
65	261	257	256		18	273	219	215	213	212		290	288	287		18	273	205	204	215	213	212	285	245	244
80	306	305	302		18	316	257	265	264	261		312	311	308		21	316	252	249	265	264	261	299	296	293
100	374	374	369		18	419	341	362	362	357		352	352	347		18	419	312	307	340	340	335	358	355	350

■ ANSI (Unit: inch)

■ ANSI (Unit: inch)															ANSI											
															FLANGED ANSI CLASS150				SOCKET			THREADED				
															L		t		L		L		L		L	
inch	mm	D ₁	H	H ₁	A	A ₂	A ₃	S	S ₁	S ₂	S ₃	S ₄	S ₅	P	U-PVC C-PVC	PP	PVDF	t	U-PVC C-PVC	PP	PVDF	U-PVC C-PVC	PP	PVDF		
1/2	15	1.89	6.28	1.14	4.33	0.98	1.26	-	0.75	0.29	0.43	-	-	1/8	5.63	5.63	5.63	0.47	4.45	4.45	4.45	4.02	4.02	4.02		
3/4	20	2.36	6.54	1.38	4.33	0.98	1.26	-	0.75	0.29	0.43	-	-	1/8	6.77	6.77	6.77	0.55	5.08	5.08	5.08	4.72	4.72	4.72		
1	25	2.76	6.81	1.54	4.33	0.98	1.26	-	0.75	0.29	0.43	-	-	1/8	7.36	7.36	7.36	0.55	5.75	5.75	5.75	5.16	5.16	5.16		
1 1/4	32	3.23	7.17	1.85	4.33	0.98	1.26	-	1.18	0.35	0.59	-	-	1/8	7.48	7.48	7.48	0.63	6.46	6.46	6.46	5.91	5.91	5.91		
1 1/2	40	3.94	8.82	2.17	8.27	1.81	1.81	-	1.18	0.35	0.59	-	-	1/4	8.35	8.35	8.35	0.63	7.24	7.24	7.24	6.42	6.42	6.42		
2	50	4.96	9.27	2.60	8.27	1.81	1.81	-	1.18	0.35	0.59	-	-	1/4	9.21	9.21	9.21	0.63	8.23	8.23	8.23	7.76	7.76	7.76		
2 1/2	65	5.24	10.55	2.83	9.84	2.24	1.50	4.23	1.89	0.35	0.24	1.26	0.28	1/4	10.20	10.12	10.08	0.71	9.45	9.37	9.33	8.46	8.39	8.35		
3	80	5.98	10.91	3.35	9.84	2.24	1.50	4.59	2.17	0.43	0.28	1.26	0.28	1/4	12.05	12.01	11.89	0.71	11.14	11.10	10.98	10.43	10.39	10.28		
4	100	8.27	13.70	4.33	11.50	2.83	1.77	5.96	2.56	0.43	0.31	1.65	0.35	1/4	14.72	14.72	14.53	0.71	13.86	14.37	14.13	14.25	14.25	14.06		