

BALL VALVE Type 21,21α

(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>)
- 4 colors available for immediate line identification.
(Red<Standard>, Blue, Yellow, White)

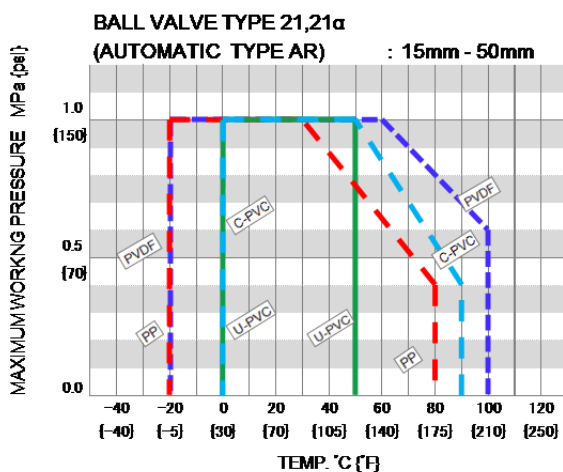


Basic specifications

- Valve Type : Ball Valve Type 21/21α (Type AR)
- Size : 15 mm — 50 mm (1/2 inch — 2 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 PP0210B67272)
PVDF (Conforming to ASTM D3222 Cell Classification Type II)
- Seal Material / O-ring : EPDM, FKM etc.
- Connection / Flanged end : JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150
Socket : JIS, DIN, ANSI
Threaded : Rc, Rp, NPT

Body Material	Fluid Temperature °C {°F}	Maximum working pressure (Normal temperature) MPa {psi}	Connection method		
			Flanged	Socket	Threaded
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 }	○	○	○

Working pressure vs. Temperature



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.

Certificate / Approval / Directive

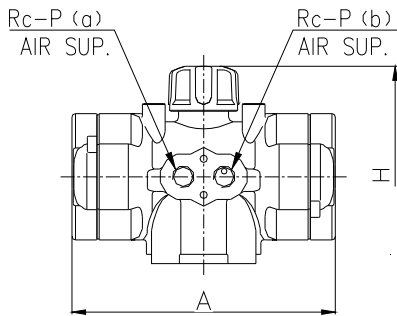
PED, ABS, NSF/ANSI61

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

Product dimension

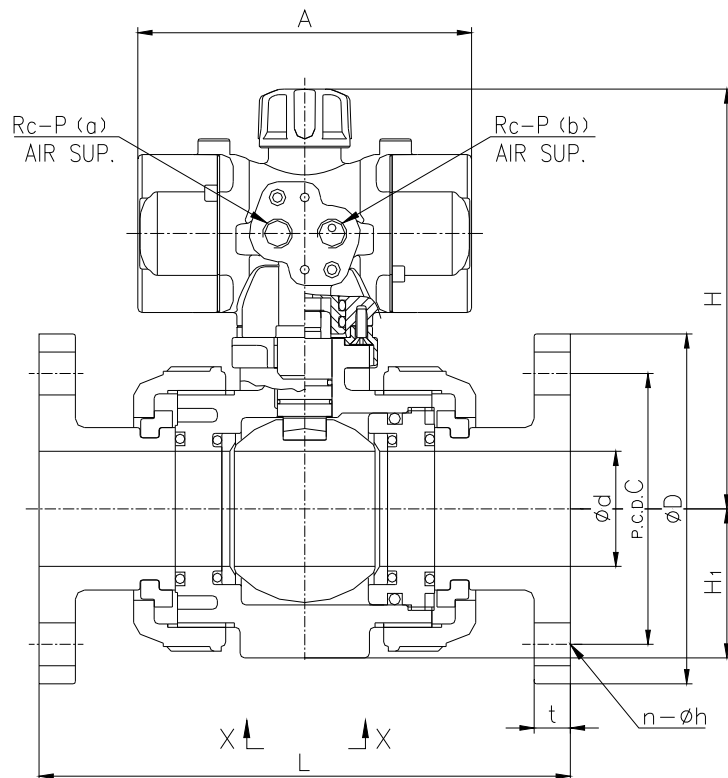
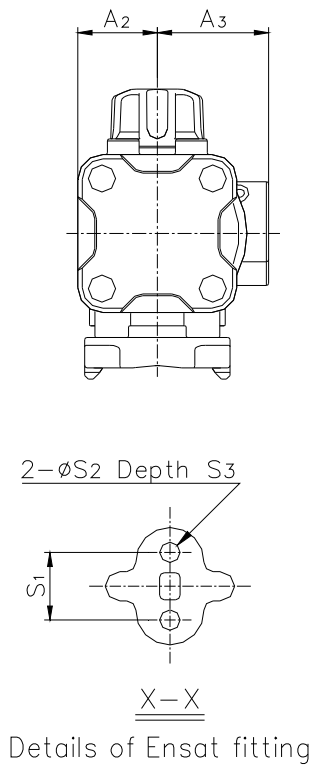
[DOUBLE ACTING]

ACTUATOR TYPE AR032, AR040

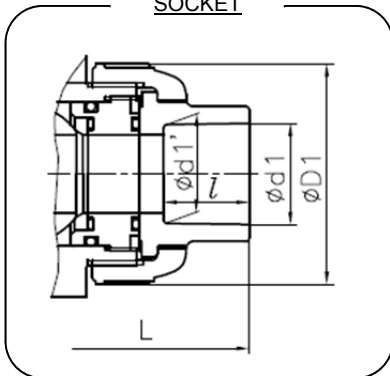


FLANGED

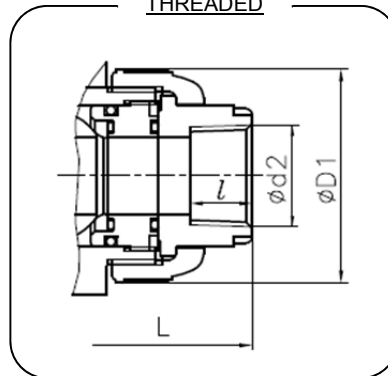
ACTUATOR TYPE AR050



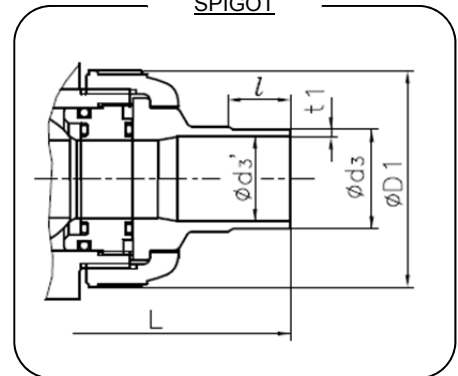
SOCKET



THREADED



SPIGOT



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



DATASHEET

■ JIS, DIN (Unit: mm)

mm	inch	d	D ₁	H	H ₁	A	A ₂	A ₃	S ₁	S ₂	S ₃	P
15	1/2	15	48	109.5	29	94	22.5	32	19	7.3	11	1/8
20	3/4	20	60	116	35	94	22.5	32	19	7.3	11	1/8
25	1	25	70	123	39	94	22.5	32	19	7.3	11	1/8
32	1 1/4	32	82	143.5	47	116	28	38	30	9	15	1/8
40	1 1/2	40	100	174.5	55	147	35	49	30	9	15	1/4
50	2	51	126	186.0	66	147	35	49	30	9	15	1/4

ACTUATOR SELECTION CHART

mm	inch	ACTUATOR TYPE
15	1/2	AR032DA10NN
20	3/4	AR032DA11NN
25	1	AR032DA11NN
32	1 1/4	AR040DA20NN
40	1 1/2	AR050DA30NN
50	2	AR050DA30NN

MODEL CLASSIFICATION TABLE

TYPE	MATERIAL
21α	PVC
	C-PVC
21	PP
	PVDF

■ JIS (Unit: mm)

mm	inch	FLANGED												SOCKET								THREADED				
		JIS 5K				JIS 10K				L				PVC, C-PVC				PP				d ₂		L		
		D	C	n	h	D	C	n	h	U-PVC C-PVC	PP	PVDF	t	d ₁	l	1/T	L	d ₁	d ₁ '	l	L	d ₂	l	U-PVC C-PVC	PP	PVDF
15	1/2	80	60	4	12	95	70	4	15	143	143	143	12	22.11	20	1/34	109	21.2	20.2	20	108	Rc 1/2	15	102	100	100
20	3/4	85	65	4	12	100	75	4	15	172	172	172	14	26.13	24	1/34	128	26.2	25.2	23	126	Rc 3/4	17	120	119	119
25	1	95	75	4	12	125	90	4	19	187	187	187	14	32.16	27	1/34	145	33.0	32.0	25	141	Rc 1	20	131	130	130
32	1 1/4	115	90	4	15	135	100	4	19	190	190	190	16	38.19	30	1/34	162	-	-	-	-	Rc 1 1/4	22	150	146	146
40	1 1/2	120	95	4	15	140	105	4	19	212	212	212	16	48.21	37	1/37	189	47.0	46.0	28	171	Rc 1 1/2	25	163	160	160
50	2	130	105	4	15	155	120	4	19	234	234	234	16	60.25	42	1/37	220	59.0	58.0	28	192	Rc 2	28	197	194	194

■ DN (Unit: mm)

mm	inch	FLANGED										SOCKET						THREADED				SPIGOT										
		DN PN10				L						PVC, C-PVC			PP, PVDF			d ₂		L		PVC			PP, PVDF							
		D	C	n	h	U-PVC C-PVC	PP	PVDF	t	d ₁	l	L	d ₁	d ₁ '	l	PP	PVDF	d ₂	l	U-PVC C-PVC	PP	PVDF	d ₃	d ₃ '	l	L	d ₃	l	PP	PVDF	PP	PVDF
15	1/2	95	65	4	14	130	130	130	12	20	16	102	19.5	19.3	14.5	99	99	Rp 1/2	15	102	100	100	20	15	18.5	124	20	18.5	2.5	1.9	124	124
20	3/4	105	75	4	14	150	150	150	14	25	19	119	24.5	24.3	16.0	113	113	Rp 3/4	17	120	119	119	25	20	24	144	25	22	2.7	1.9	144	144
25	1	115	85	4	14	160	160	160	14	32	22	131	31.5	31.3	18.0	123	123	Rp 1	20	131	130	130	32	25	24.5	154	32	22.5	3.0	2.4	154	154
32	1 1/4	140	100	4	18	180	180	180	16	40	26	150	39.5	39.2	20.5	139	139	Rp 1 1/4	22	150	146	146	40	31	28	174	40	26	3.7	2.4	174	174
40	1 1/2	150	110	4	18	200	200	200	16	50	31	164	49.5	49.2	23.5	149	149	Rp 1 1/2	25	163	160	160	50	40	34	194	50	32	4.6	3.0	194	194
50	2	165	125	4	18	230	230	230	16	63	38	197	62.5	62.1	27.5	176	176	Rp 2	28	197	194	194	63	51	38	224	63	36	5.8	3.0	224	224

■ ANSI (Unit: inch)

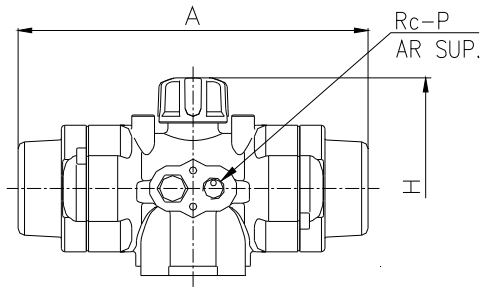
inch	mm	d	D ₁	H	H ₁	A	A ₂	A ₃	S ₁	S ₂	S ₃	P
1/2	15	0.59	1.89	4.31	1.14	3.70	0.89	1.26	0.75	0.29	0.43	1/8
3/4	20	0.79	2.36	4.57	1.38	3.70	0.89	1.26	0.75	0.29	0.43	1/8
1	25	0.98	2.76	4.84	1.54	3.70	0.89	1.26	0.75	0.29	0.43	1/8
1 1/4	32	1.26	3.23	5.65	1.85	4.57	1.10	1.50	1.18	0.35	0.59	1/8
1 1/2	40	1.57	3.94	6.87	2.17	5.79	1.38	1.93	1.18	0.35	0.59	1/4
2	50	2.01	4.96	7.32	2.60	5.79	1.38	1.93	1.18	0.35	0.59	1/4

■ ANSI (Unit: inch)

inch	mm	FLANGED										SOCKET (PS)						THREADED													
		ANSI Class 150				L						PVC, C-PVC			PP, PVDF			d ₂		L		PVC			PP, PVDF						
		D	C	n	h	U-PVC C-PVC	PP	PVDF	t	d ₁	d ₁ '	l	L	d ₁	d ₁ '	l	PP	PVDF	d ₂	l	U-PVC C-PVC	PP	PVDF	d ₃	d ₃ '	l	L	d ₃	l	PP	PVDF
1/2	15	3.50	2.38	4	0.62	5.63	5.63	5.63	0.47	0.848	0.836	0.875	4.45	0.83	0.87	4.41	4.41	1/2 - 14NPT	0.59	4.02	3.94	3.94									
3/4	20	3.88	2.75	4	0.62	6.77	6.77	6.77	0.55	1.058	1.046	1.000	5.08	1.03	1.00	5.00	5.00	3/4 - 14NPT	0.67	4.72	4.69	4.69									
1	25	4.25	3.12	4	0.62	7.36	7.36	7.36	0.55	1.325	1.310	1.125	5.71	1.30	1.13	5.63	5.63	1 - 11 1/2NPT	0.79	5.16	5.12	5.12									
1 1/4	32	4.62	3.50	4	0.62	7.48	7.48	7.48	0.63	1.670	1.655	1.250	6.46	1.65	1.25	6.30	6.30	1 1/4 - 11 1/2NPT	0.87	5.91	5.75	5.75									
1 1/2	40	5.00	3.88	4	0.62	8.35	8.35	8.35	0.63	1.912	1.894	1.375	7.24	1.89	1.37	7.05	7.05	1 1/2 - 11 1/2NPT	0.98	6.42	6.30	6.30									
2	50	6.00	4.75	4	0.75	9.21	9.21	9.21	0.63	2.387	2.369	1.500	8.23	2.36	1.50	8.03	8.03	2 - 11 1/2NPT	1.10	7.76	7.64	7.64									

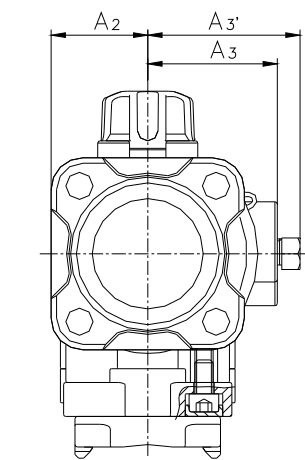
* For detailed specifications, see page 7.

[AIR TO OPEN]
[AIR TO CLOSE]

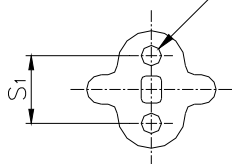


ACTUATOR TYPE (AR040)

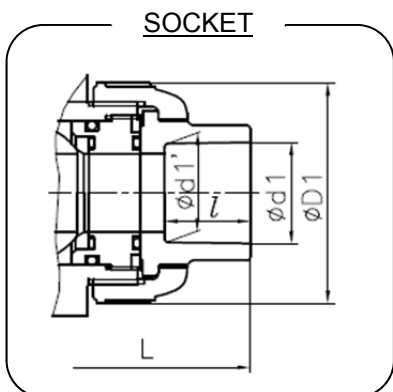
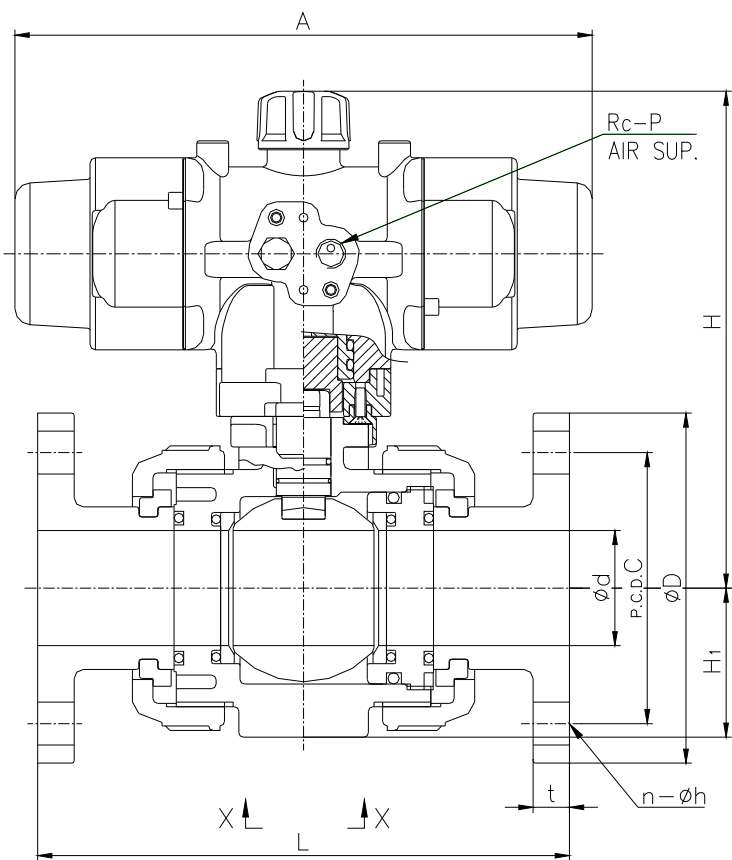
FLANGED ACTUATOR TYPE (AR050, AR063)



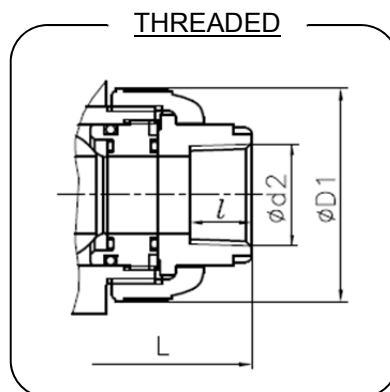
2- ϕ S2 Depth S3



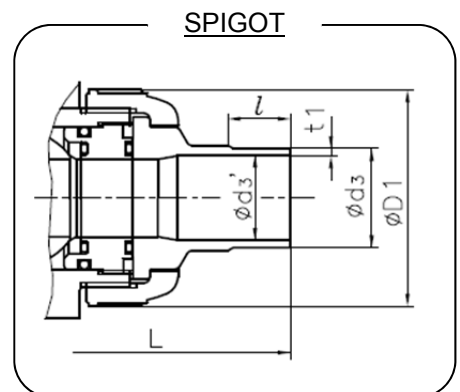
X-X
Details of Ensat fitting



SOCKET



THREADED



SPIGOT

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



DATASHEET

■ JIS, DIN (Unit: mm)

mm	inch	d	D ₁	H	H ₁	A	A ₂	A ₃	A ₃ '	S ₁	S ₂	S ₃	P
15	1/2	15	48	131	29	154	28	38	46	19	7.3	11	1/8
20	3/4	20	60	137.5	35	154	28	38	46	19	7.3	11	1/8
25	1	25	70	144.5	39	154	28	38	46	19	7.3	11	1/8
32	1 1/4	32	82	178	47	194	35	49	59	30	9	15	1/4
40	1 1/2	40	100	208.5	55	254	42.5	57	67	30	9	15	1/4
50	2	51	126	220	66	254	42.5	57	67	30	9	15	1/4

ACTUATOR SELECTION CHART *

mm	inch	ACTUATOR TYPE	
		AIR TO OPEN	AIR TO CLOSE
15	1/2	AR040NC20CN	AR040NO20CN
20	3/4	AR040NC20CN	AR040NO20CN
25	1	AR040NC20CN	AR040NO20CN
32	1 1/4	AR050NC30CN	AR050NO30CN
40	1 1/2	AR063NC40CN	AR063NO40CN
50	2	AR063NC40CN	AR063NO40CN

MODEL CLASSIFICATION TABLE

TYPE	MATERIAL
21α	PVC C-PVC
21	PP PVDF

■ JIS (Unit: mm)

mm	inch	FLANGED												SOCKET								THREADED				
		JIS 5K				JIS 10K				L				PVC, C-PVC				PP				d ₂	l	L		
		D	C	n	h	D	C	n	h	U-PVC C-PVC	PP	PVDF	t	d ₁	l	1/T	L	d ₁	d ₁ '	l	L			U-PVC C-PVC	PP	PVDF
15	1/2	80	60	4	12	95	70	4	15	143	143	143	12	22.11	20	1/34	109	21.2	20.2	20	108	Rc 1/2	15	102	100	100
20	3/4	85	65	4	12	100	75	4	15	172	172	172	14	26.13	24	1/34	128	26.2	25.2	23	126	Rc 3/4	17	120	119	119
25	1	95	75	4	12	125	90	4	19	187	187	187	14	32.16	27	1/34	145	33.0	32.0	25	141	Rc 1	20	131	130	130
32	1 1/4	115	90	4	15	135	100	4	19	190	190	190	16	38.19	30	1/34	162	-	-	-	-	Rc 1 1/4	22	150	146	146
40	1 1/2	120	95	4	15	140	105	4	19	212	212	212	16	48.21	37	1/37	189	47.0	46.0	28	171	Rc 1 1/2	25	163	160	160
50	2	130	105	4	15	155	120	4	19	234	234	234	16	60.25	42	1/37	220	59.0	58.0	28	192	Rc 2	28	197	194	194

■ DN (Unit: mm)

mm	inch	FLANGED												SOCKET								THREADED				SPIGOT							
		DIN PN10				L				t	PVC, C-PVC				PP, PVDF				d ₂	l	L				PVC				PP, PVDF				
		D	C	n	h	U-PVC C-PVC	PP	PVDF	d ₁		l	L	d ₁	d ₁ '	l	PP	PVDF	d ₃			d ₃ '	l	L	d ₃	l	PP	PVDF	PP	PVDF				
15	1/2	95	65	4	14	130	130	130	12	20	16	102	19.5	19.3	14.5	99	99	Rp 1/2	15	102	100	100	20	15	18.5	124	20	18.5	2.5	1.9	124	124	
20	3/4	105	75	4	14	150	150	150	14	25	19	119	24.5	24.3	16.0	113	113	Rp 3/4	17	120	119	119	25	20	24	144	25	22	2.7	1.9	144	144	
25	1	115	85	4	14	160	160	160	14	32	22	131	31.5	31.3	18.0	123	123	Rp 1	20	131	130	130	32	25	24.5	154	32	22.5	3.0	2.4	154	154	
32	1 1/4	140	100	4	18	180	180	180	16	40	26	150	39.5	39.2	20.5	139	139	Rp 1 1/4	22	150	146	146	40	31	28	174	40	26	3.7	2.4	174	174	
40	1 1/2	150	110	4	18	200	200	200	16	50	31	164	49.5	49.2	23.5	149	149	Rp 1 1/2	25	163	160	160	50	40	34	194	50	32	4.6	3.0	194	194	
50	2	165	125	4	18	230	230	230	16	63	38	197	62.5	62.1	27.5	176	176	Rp 2	28	197	194	194	63	51	38	224	63	36	5.8	3.0	224	224	

■ ANSI (Unit: inch)

inch	mm	d	D ₁	H	H ₁	A	A ₂	A ₃	A ₃ '	S ₁	S ₂	S ₃	P
1/2	15	0.59	1.89	5.16	1.14	6.06	1.10	1.50	1.81	0.75	0.29	0.43	1/8
3/4	20	0.79	2.36	5.41	1.38	6.06	1.10	1.50	1.81	0.75	0.29	0.43	1/8
1	25	0.98	2.76	5.69	1.54	6.06	1.10	1.50	1.81	0.75	0.29	0.43	1/8
1 1/4	32	1.26	3.23	7.01	1.85	7.64	1.38	1.93	2.32	1.18	0.35	0.59	1/4
1 1/2	40	1.57	3.94	8.21	2.17	10.00	1.67	2.24	2.64	1.18	0.35	0.59	1/4
2	50	2.01	4.96	8.66	2.60	10.00	1.67	2.24	2.64	1.18	0.35	0.59	1/4

■ ANSI (Unit: inch)

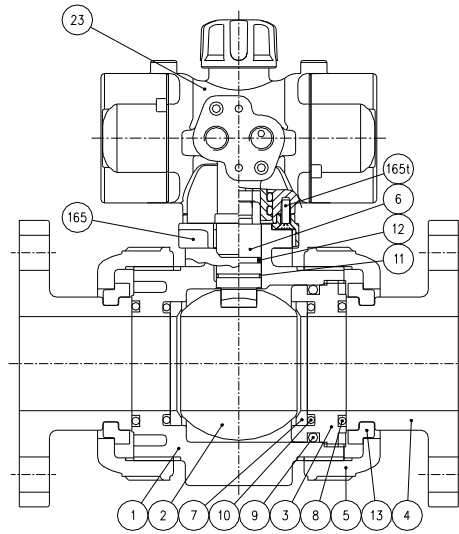
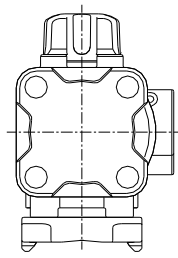
inch	mm	FLANGED												SOCKET (IPS)								THREADED			
		ANSI Class 150				L				t	PVC, C-PVC				PP, PVDF				d ₂	l	L				
		D	C	n	h	U-PVC C-PVC	PP	PVDF	d ₁		l	L	d ₁	d ₁ '	l	PP	PVDF	d ₃			d ₃ '	l	L	U-PVC C-PVC	PP
1/2	15	3.50	2.38	4	0.62	5.63	5.63	0.47	0.848	0.836	0.875	4.45	0.83	0.87	4.41	4.41	1/2 - 14NPT	0.59	4.02	3.94	3.94				
3/4	20	3.88	2.75	4	0.62	6.77	6.77	0.55	1.058	1.046	1.000	5.08	1.03	1.00	5.00	5.00	3/4 - 14NPT	0.67	4.72	4.69	4.69				
1	25	4.25	3.12	4	0.62	7.36	7.36	0.55	1.325	1.310	1.125	5.71	1.30	1.13	5.63	5.63	1 - 11 1/2NPT	0.79	5.16	5.12	5.12				
1 1/4	32	4.62	3.50	4	0.62	7.48	7.48	0.63	1.670	1.655	1.250	6.46	1.65	1.25	6.30	6.30	1 1/4 - 11 1/2NPT	0.87	5.91	5.75	5.75				
1 1/2	40	5.00	3.88	4	0.62	8.35	8.35	0.63	1.912	1.894	1.375	7.24	1.89	1.37	7.05	7.05	1 1/2 - 11 1/2NPT	0.98	6.42	6.30	6.30				
2	50	6.00	4.75	4	0.75	9.21	9.21	0.63	2.387	2.369	1.500	8.23	2.36	1.50	8.03	8.03	2 - 11 1/2NPT	1.10	7.76	7.64	7.64				

* For detailed specifications, see page 7.

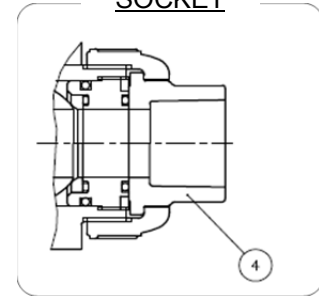
Parts list

[DOUBLE ACTING]

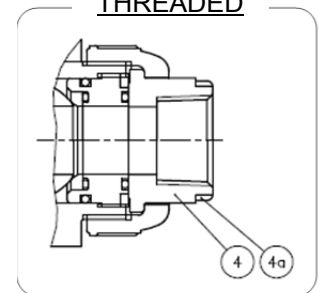
FLANGED



SOCKET

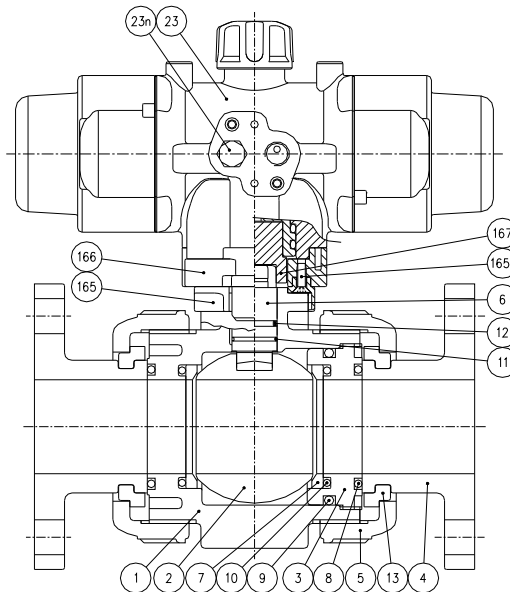
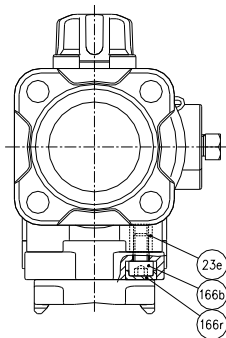


THREADED

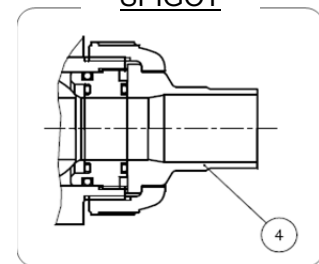


[AIR TO OPEN]
[AIR TO CLOSE]

FLANGED



SPIGOT



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

Compatible Actuator

Options are easily removable/ replaceable and can be mounted later (except POSITIONER and STROKE LIMITER).
Air piping is compatible with NAMUR standard. (AR032 and AR040 use NAMUR conversion plate.)

DOUBLE ACTING	ACTUATOR TYPE				UNIT
	AR032DA	AR040DA	AR050DA	AR063DA	
ANGLE ADJUSTMENT	No angle adjustment is available.				
OPERATING PRESSURE	0.4-0.7				MPa
AIR CONSUMPTION	0.3	0.6	1.3	2.4	NL/OPEN & CLOSE (0.4 MPa)
AIR SUPPLY BORE	Rc1/8		Rc1/4		

AIR TO OPEN AIR TO CLOSE	-	ACTUATOR TYPE			UNIT
		AR040NC AR040NO	AR050NC AR050NO	AR063NC AR063NO	
ANGLE ADJUSTMENT	/	No angle adjustment is available.			
OPERATING PRESSURE		0.4-0.7			MPa
AIR CONSUMPTION		0.2	0.4	0.8	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	12	13
SOLENOID VALVE ^{*1}	○	-	-	-	-	-	○	○	○	-	-	-	-
FILTER REGULATOR	-	-	-	-	-	-	○	-	○	-	-	○	-
SPEED CONTROLLER ^{*2}	◎	○	◎	-	-	-	◎	◎	◎	◎	○	-	-
BYPASS VALVE ^{*2}	◎	-	○	-	-	-	◎	◎	◎	○	-	-	-
LIMIT SWITCH BOX ^{*3}	-	-	-	○	-	-	-	○	○	○	○	-	-
POSITIONER (E/P, P/P) ^{*4}	-	-	-	-	○	-	-	-	-	-	-	○	-
STROKE LIMITER	-	-	-	-	-	○	-	-	-	-	-	-	-
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.

*4 When using the positioner, the actuator is fixed with a mount same as type TA.

OPTION LIST	MANUFACTURER	BASIC SPECIFICATIONS
SOLENOID VALVE NAMUR	KONAN	<ul style="list-style-type: none"> WATER PROOF, EXPLOSION PROOF POWER SOURCE AC100V, AC110V, AC200V, AC220V, DC24V
FILTER REGULATOR	KONAN	
SPEED CONTROLLER	SMC	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> WATER PROOF
POSITIONER	YTC	<ul style="list-style-type: none"> E/P: INPUT SIGNAL CURRENT DC 4-20 mA P/P: INPUT SIGNAL AIR PRESSURE 0.02 - 0.1 MPa
STROKE LIMITER (OPENING DEGREE ADJUSTING BOLT)	ASAHI YUKIZAI	
PNEUMATIC COUNTER	ASAHI YUKIZAI	
DISMOUNT LEVER	ASAHI YUKIZAI	

ENSAT (METAL INSERT) MOUNTING PROCEDURE

BALL VALVE TYPE 21, 21α
15mm - 50mm


At the bottom of the valve body, a "holed bottom stand" is provided which can be easily secured to a rack or panel only by inserting an ENSAT.

★ Install the metal insert (ENSAT) in the procedure below.

<When using the special tool>

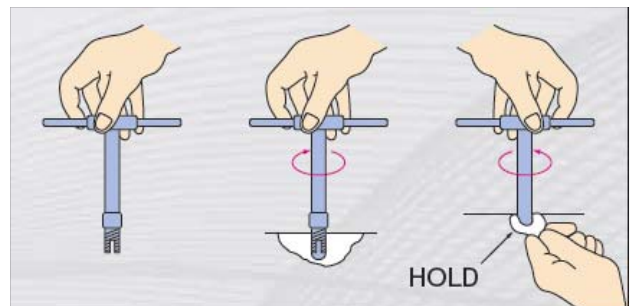
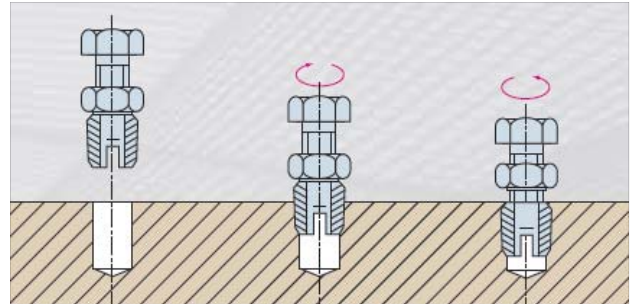
Attach the ENSAT at the end of special tool with the splitting groove facing downward.

While ensuring that the center is aligned with the prepared hole from the front, back, right and left, screw the ENSAT in to the predetermined depth.

After the ENSAT is screwed in completely, hold the nut with a spanner while turning the upper portion of the tool in the reverse direction. The tool will be freely movable and come out.

<When using a bolt and nut>

Screw the ENSAT in a double nut fashion. After the ENSAT is screwed in, hold the bolt and loosen the nut. The bolt will be freely movable and can be removed.



When the ENSAT is manually screwed in, the center alignment between the ENSAT and the prepared hole is particularly important. Check that the ENSAT is inserted perpendicular to the prepared hole while screwing it in. If it is tilted, do not turn the tool backward, but just put the ENSAT in its correct position. Note that, when nearly half of the ENSAT is once inserted, its position can no longer be corrected.

NOTE For details of how to handle the ENSAT mounting special tool, see to instruction manual provided by the ENSAT manufacturer. (K.K.V.CORPORATION)

Product weight

TYPE 21, TYPE 21α Type AR (Standard)

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	0.6	0.6	0.5	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
20	3/4	0.8	0.9	0.7	0.9	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.5
25	1	1.0	1.1	0.9	1.2	0.7	0.7	0.6	0.7	0.6	0.7	0.6	0.7
32	1 1/4	1.6	1.7	1.3	1.9	1.1	1.1	1.0	1.2	1.0	1.1	-	1.1
40	1 1/2	2.5	2.6	2.0	2.8	1.9	1.9	1.5	2.1	1.8	1.8	1.6	2.0
50	2	3.3	3.5	2.6	4.5	2.7	2.8	2.0	3.0	2.5	2.6	2.0	2.8

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	1.0	1.0	0.9	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
20	3/4	1.2	1.3	1.1	1.3	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9
25	1	1.4	1.5	1.3	1.6	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.1
32	1 1/4	2.3	2.4	2.0	2.6	1.8	1.8	1.7	1.9	1.7	1.8	-	1.8
40	1 1/2	3.7	3.8	3.2	4.0	3.1	3.1	2.7	3.3	3.0	3.0	2.8	3.2
50	2	4.5	4.7	3.8	5.7	3.9	4.0	3.2	4.2	3.7	3.8	3.2	4.0

Product model code list

ACTUATION	TYPE	ACTUATOR TYPE	ACTION	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
A	**	L	*	*	*	*	***	***
: A AUTOMATIC VALVE	: 21 TYPE 21 2A TYPE 21A	: 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 5 050 50mm

* 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.