

# Diaphragm Valve Type AV (Type 15, 72)

[Pneumatic type]

## Features

- Stopper provided to adjust Fully-Close position.



## Basic specifications

- Valve Type : Diaphragm Valve Type AV (Type 15,72)
- Size : 125 mm - 250 mm ( 5 inch – 10 inch)
- Body Material : U-PVC (Conforming to ASTM D1784 Cell Classification 12454A)  
PP (Conforming to ASTM D4101 Cell Classification PP0210B67272)  
PVDF (Conforming to ASTM D3222 Cell Classification Type II)
- Seal Material / Diaphragm : EPDM, PTFE, FKM etc.
- Connection / Flanged : JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150

### - Diaphragm Valve Type AV (Type 15)

#### DOUBLE ACTING

Body Material	FLUID TEMPERATURE °C {°F}	Maximum working pressure (Normal Temperature) MPa {psi}				Connection Method
		Diaphragm : Rubber		Diaphragm : PTFE		
		125mm	150mm	125mm	150mm	Flanged
U-PVC	0 ~ 60 { 30~140 }	0.35 {50}	0.3 {40}	0.25 {35}	0.2 {30}	○
PP	-20 ~ 90 { -5~195 }	0.35 {50}	0.3 {40}	0.25 {35}	0.2 {30}	○
PVDF	-20 ~ 120 { -5~250 }	—	—	0.25 {35}	0.2 {30}	○

#### AIR TO OPEN / AIR TO CLOSE

Body Material	FLUID TEMPERATURE °C {°F}	Maximum working pressure (Normal Temperature) MPa {psi}				Connection Method
		Diaphragm : Rubber		Diaphragm : PTFE		
		125mm	150mm	125mm	150mm	Flanged
U-PVC	0 ~ 60 { 30~140 }	0.5 {70}		0.3 {40}		○
PP	-20 ~ 90 { -5~195 }	0.5 {70}		0.3 {40}		○
PVDF	-20 ~ 120 { -5~250 }	—		0.3 {40}		○

### - Diaphragm Valve Type AV (Type 72)

#### DOUBLE ACTING

Body Material	FLUID TEMPERATURE °C {°F}	Maximum working pressure (Normal Temperature) MPa {psi}				Connection Method
		Diaphragm : Rubber		Diaphragm : PTFE		
		200mm	250mm	200mm	250mm	Flanged
U-PVC	0 ~ 60 { 30~140 }	0.3 {40}		0.1 {15}		○
PP	-20 ~ 90 { -5~195 }	0.3 {40}		0.1 {15}		○
PVDF	-20 ~ 120 { -5~250 }	—		0.1 {15}		○

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.

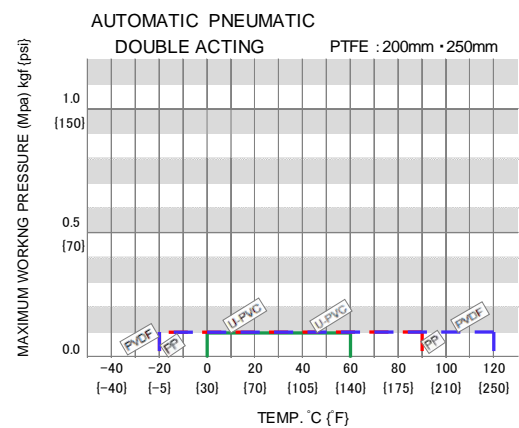
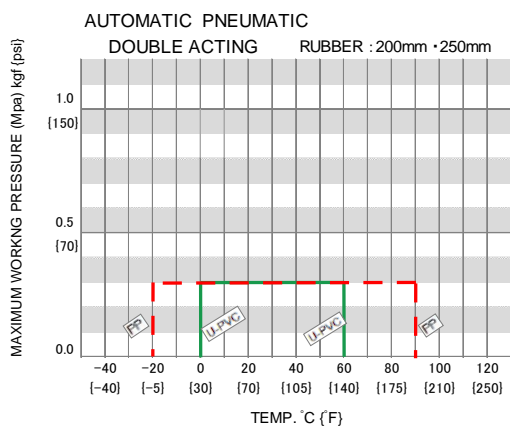
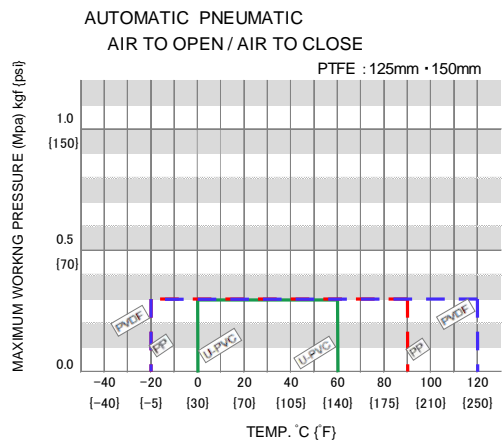
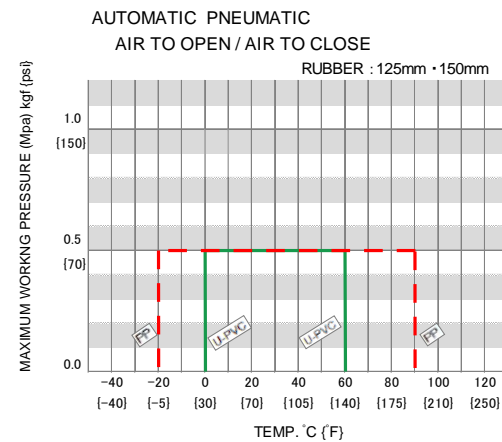
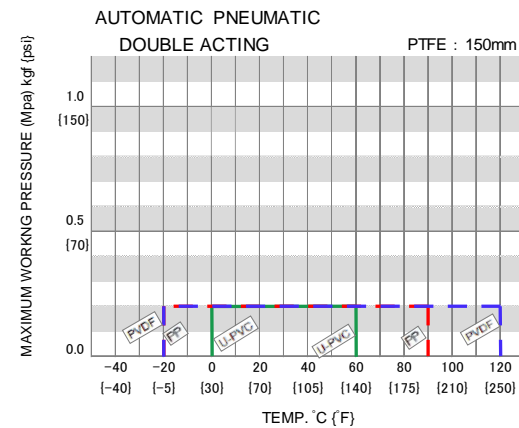
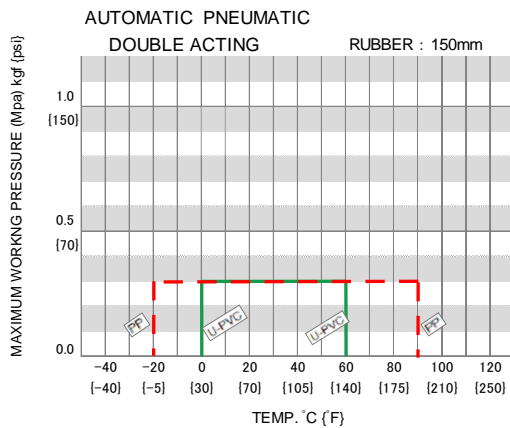
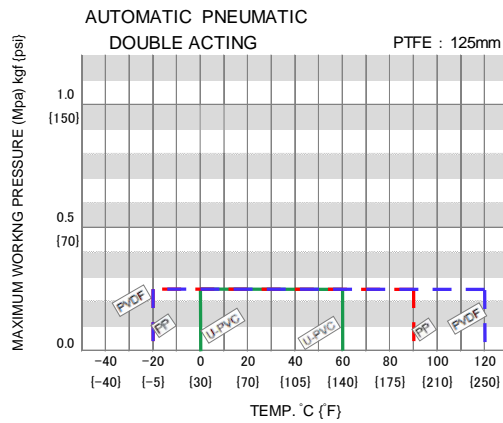
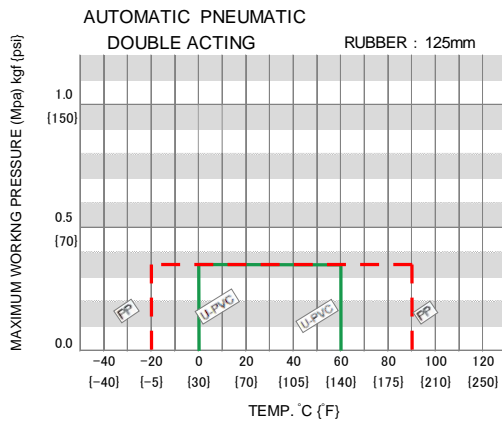
\* Concerning the allowable pressure for each temperature, material and actuator type, see the technical documents at the next page of this sheet.

\* The diaphragm may become loose due to temperature changes during long storage, operation stop or while in use. Check the conditions and then retighten the bolts and nut between the bonnet and the body to the "bonnet tightening torque". (Failure to do so may cause fluid leakage.)

## Certificate / Approval

**PED** "For details of applicable products, please consult us."

## Working pressure vs. Temperature

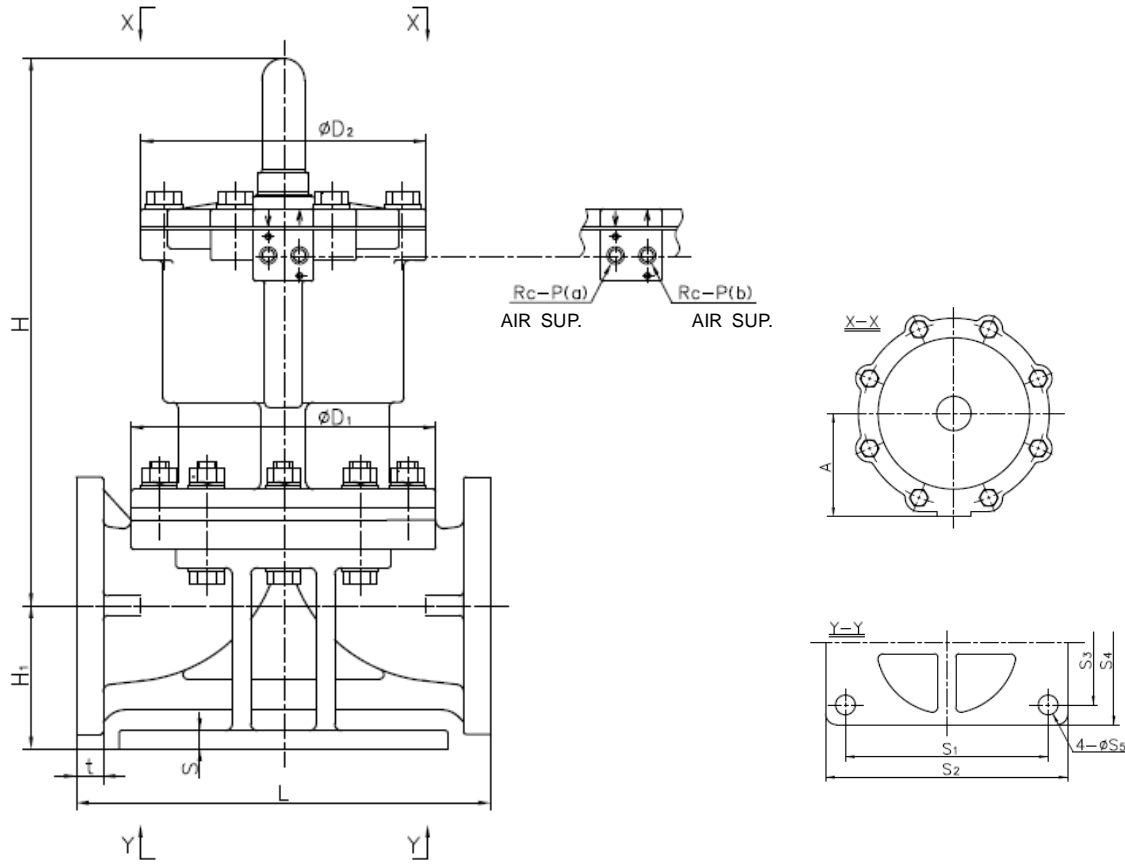


Note : Make sure that the temperature and pressure are within the working range during operation.  
(If the tolerance range is exceeded during use, the valve may be damaged.)

**Product dimension**

[AUTOMATIC PNEUMATIC TYPE AV DOUBLE ACTING]

TYPE 15



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
125mm( 5inch)	AV-4DA
150mm( 6inch)	AV-5DA

■ JIS, DIN (Unit: mm)

mm	inch	D <sub>1</sub>	D <sub>2</sub>	A	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	JIS10K			DIN PN10			
														L	t		L	t		
															U-PVC	PP PVDF		U-PVC	PP PVDF	
125	5	320	305	150	508	143	15	310	350	280	320	23	1/4	410	22	24		400	22	23
150	6	385	385	195	566	148	16	360	400	310	350	23	1/4	480	24	27		480	24	27

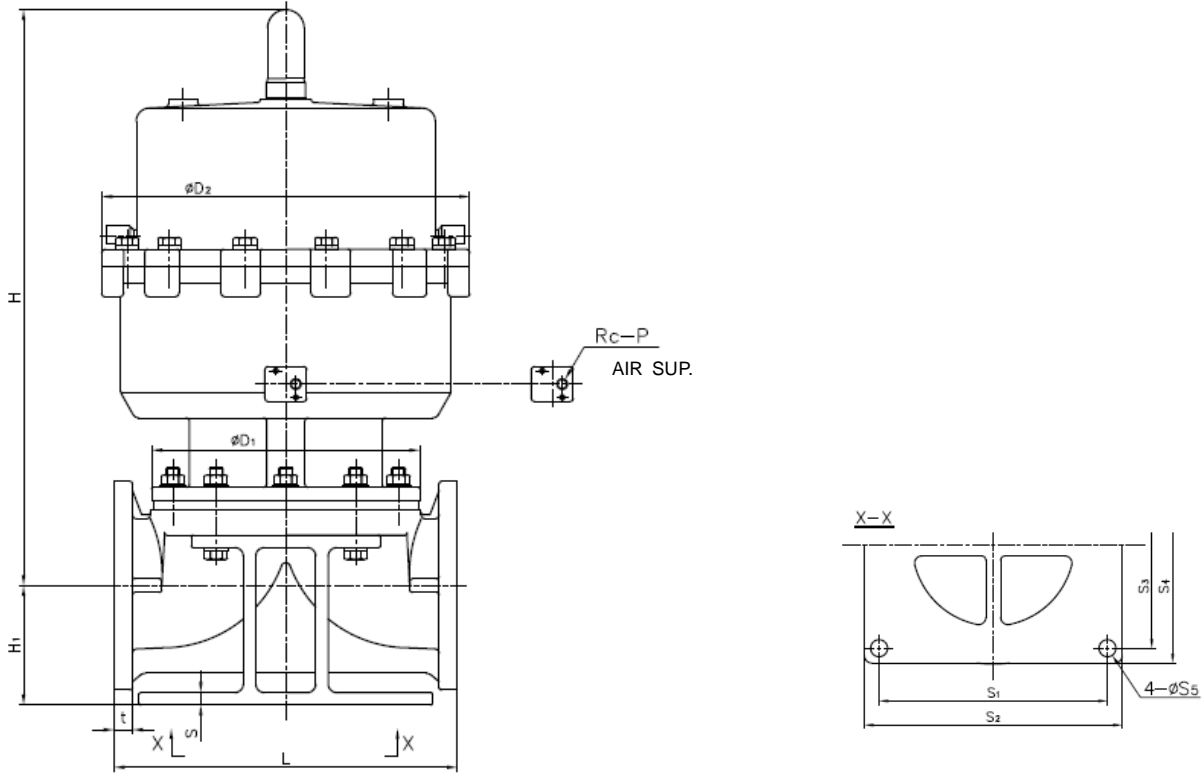
■ ANSI (Unit: inch)

inch	mm	D <sub>1</sub>	D <sub>2</sub>	A	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	ANSI Class 150			
														L	t		
															U-PVC	PP PVDF	
5	125	12.60	12.01	5.91	20.00	5.63	0.59	12.20	13.78	11.02	12.60	0.91	1/4	16.14	0.87	0.94	
6	150	15.16	15.16	7.68	22.28	5.83	0.63	14.17	15.75	12.20	13.78	0.91	1/4	18.90	0.94	1.06	

**Product dimension**

[AUTOMATIC PNEUMATIC TYPE AV AIR TO OPEN]

TYPE 15



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
125mm( 5inch)	AV-4AO
150mm( 6inch)	AV-5AO

■ JIS, DIN (Unit: mm)

mm	inch	D <sub>1</sub>	D <sub>2</sub>	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	JIS10K			DIN PN10			
													L	t		L	t		
														U-PVC	PP PVDF		U-PVC	PP PVDF	
125	5	320	455	690	143	15	310	350	280	320	23	1/4	410	22	24		400	22	23
150	6	385	520	790	148	16	360	400	310	350	23	1/4	480	24	27		480	24	27

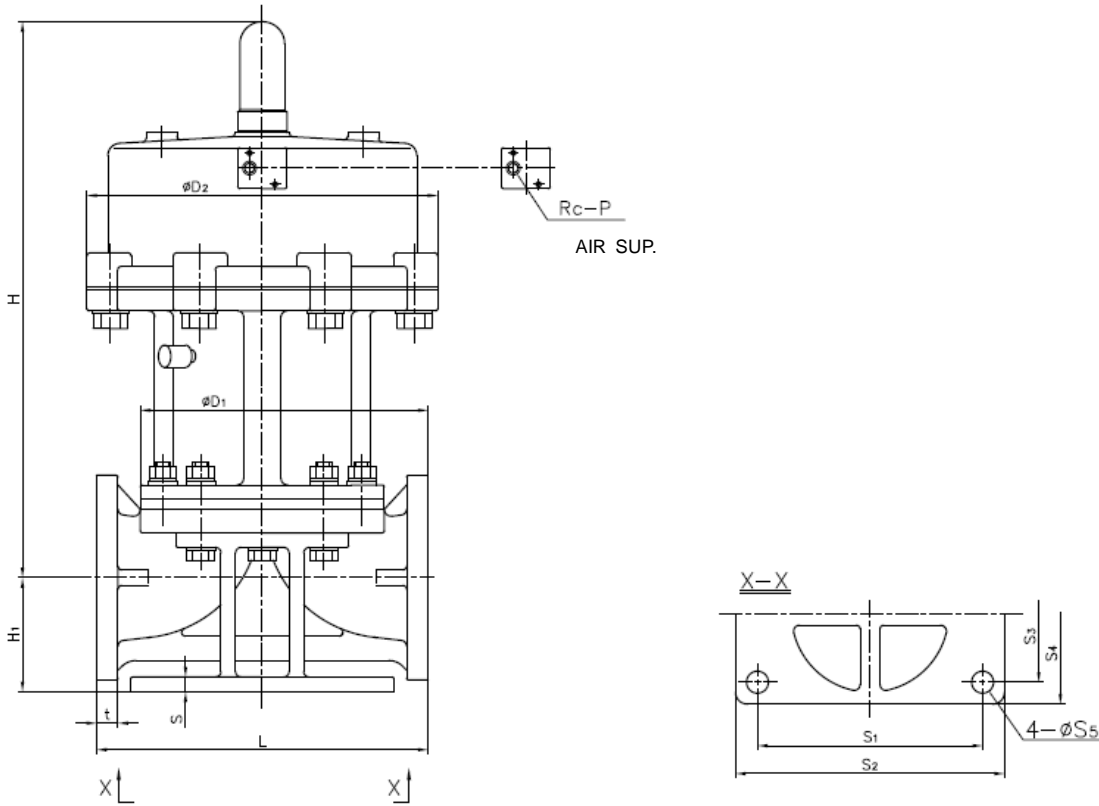
■ ANSI (Unit: inch)

inch	mm	D <sub>1</sub>	D <sub>2</sub>	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	ANSI Class 150			
													L	t		
														U-PVC	PP PVDF	
5	125	12.60	17.91	27.17	5.63	0.59	12.20	13.78	11.02	12.60	0.91	1/4	16.14	0.87	0.94	
6	150	15.16	20.47	31.10	5.83	0.63	14.17	15.75	12.20	13.78	0.91	1/4	18.90	0.94	1.06	

**Product dimension**

[AUTOMATIC PNEUMATIC TYPE AV AIR TO CLOSE]

TYPE 15



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
125mm( 5inch)	AV-4AS
150mm( 6inch)	AV-5AS

■ JIS, DIN (Unit: mm)

mm	inch	D <sub>1</sub>	D <sub>2</sub>	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	JIS10K			DIN PN10			
													L	t		L	t		
														U-PVC	PP PVDF		U-PVC	PP PVDF	
125	5	320	455	653	143	15	310	350	280	320	23	1/4	410	22	24		400	22	23
150	6	385	520	722	148	16	360	400	310	350	23	1/4	480	24	27		480	24	27

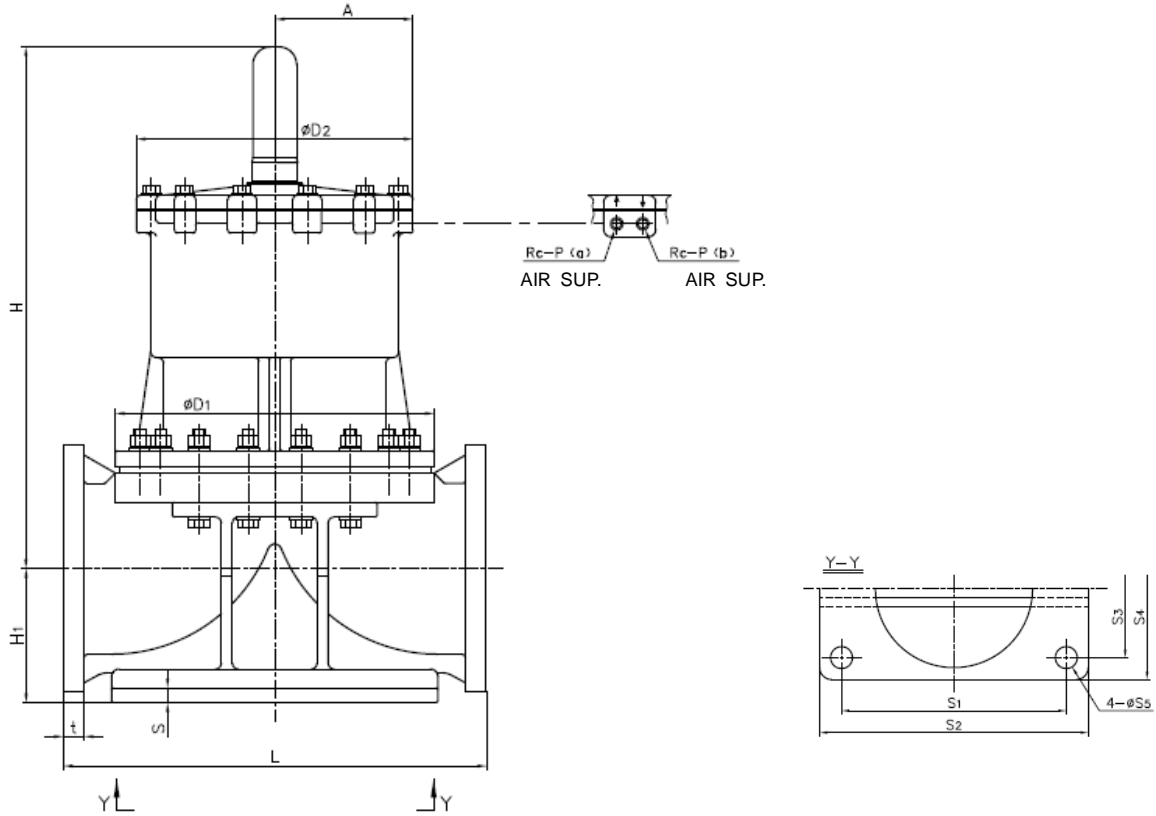
■ ANSI (Unit: inch)

inch	mm	D <sub>1</sub>	D <sub>2</sub>	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	ANSI Class 150			
													L	t		
														U-PVC	PP PVDF	
5	125	12.60	17.91	25.71	5.63	0.59	12.20	13.78	11.02	12.60	0.91	1/4	16.14	0.87	0.94	
6	150	15.16	20.47	28.43	5.83	0.63	14.17	15.75	12.20	13.78	0.91	1/4	18.90	0.94	1.06	

### Product dimension

[AUTOMATIC PNEUMATIC TYPE AV DOUBLE ACTING]

TYPE 72



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
200mm( 8inch)	AV-6DA
250mm( 10inch)	AV-7DA

■ JIS, DIN (Unit: mm)

mm	inch	D <sub>1</sub>	D <sub>2</sub>	A	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	JIS10K		DIN PN10			
														L	t	L	t		
200	8	430	385	195	742	179	20	390	440	330	380	23	3/8	570	28	32	600	30	34
250	10	540	520	260	890	215	23	470	540	390	460	25	1/4	680	30	37	730	34	36

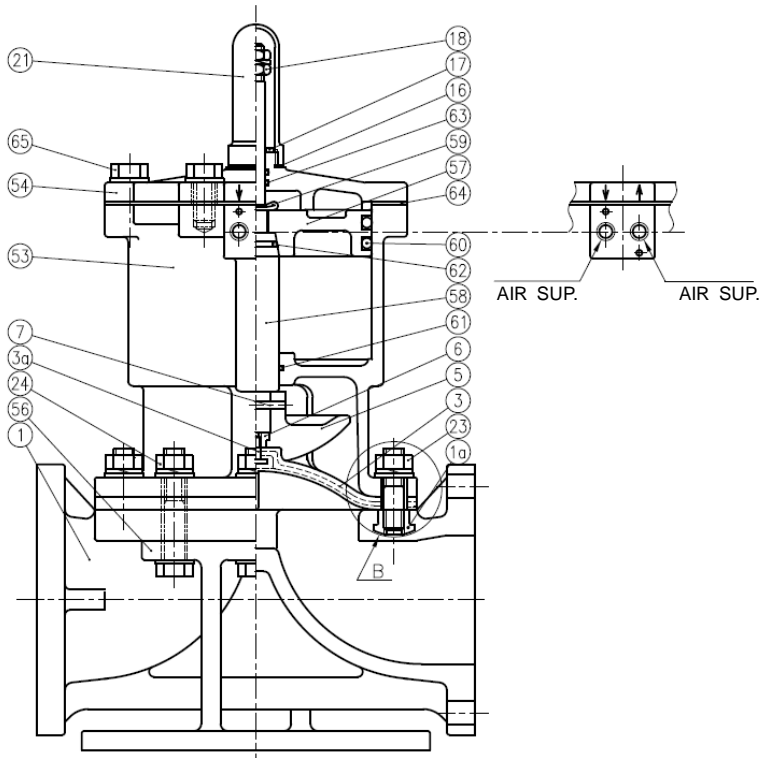
■ ANSI (Unit: inch)

inch	mm	D <sub>1</sub>	D <sub>2</sub>	A	H	H <sub>1</sub>	S	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	P	ANSI Class 150		
														L	t	
8	200	16.93	15.16	7.68	29.21	7.05	0.79	15.35	17.32	12.99	14.96	0.91	3/8	22.44	1.10	1.26
10	250	21.26	20.47	10.24	35.04	8.46	0.91	18.50	21.26	15.35	18.11	0.98	1/4	26.77	1.18	1.46

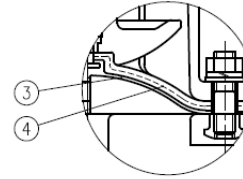
### Parts list

[AUTOMATIC PNEUMATIC TYPE AV DOUBLE ACTING]

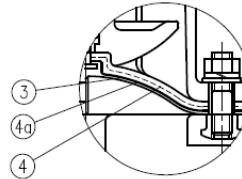
TYPE 15



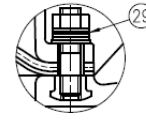
PTFE diaphragm



PTFE with cushion cover



In Case of PVDF Body.



"B" Part

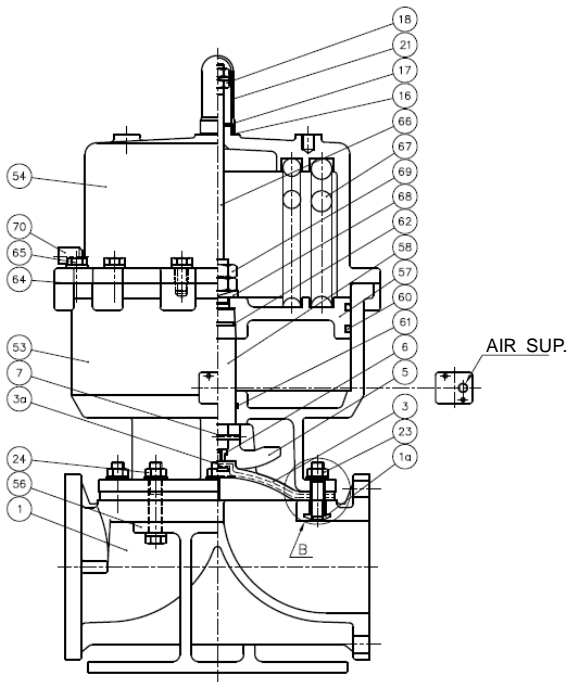
PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1	1	PVC, PP, PVDF	5	1	PVDF	53	1	CAST ALUMINIUM ALLOY Epoxy Coat
1a	4	COPPER ALLOY Used for PVC&PP Body. STAINLESS STEEL Used for PVDF Body.	6	1	COPPER ALLOY	54	1	CAST ALUMINIUM ALLOY Epoxy Coat
3	1	EPDM, PTFE, Others ( )	7	1	STAINLESS STEEL	56	1	CAST ALUMINIUM ALLOY
3a	1	STAINLESS STEEL	16	1	EPDM	57	1	CAST ALUMINIUM ALLOY
4	1	EPDM, Others ( ) Used for PTFE Diaphragm	17	1	STAINLESS STEEL	58	1	STAINLESS STEEL
4a	1	Nothing, PVDF Used for PTFE Diaphragm	18	1	STAINLESS STEEL	59	1	SPRING STEEL
			21	1	PC	60	2	NBR
			23	4 Sets	STAINLESS STEEL	61	1	NBR
			24	-	STAINLESS STEEL	62	1	NBR
			29	-	STAINLESS STEEL Used for PVDF Body.	63	2	NBR
			65	-	STAINLESS STEEL	64	1	NBR

Diaphragms except EPDM and PTFE are available in FKM, VIFLON®C (FKM-C), VIFLON®F (FKM-F), CSM and NBR when required.  
The shape and appearance of assembly differ a little with nominal size compared to this drawing.

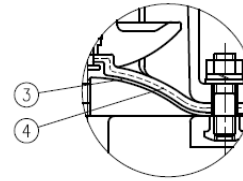
Parts list

[AUTOMATIC PNEUMATIC TYPE AV AIR TO OPEN]

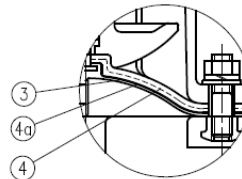
TYPE 15



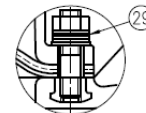
PTFE diaphragm



PTFE with cushion cover



In Case of PVDF Body.



"B" Part

PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1 BODY	1	PVC, PP, PVDF	16 SHEET GASKET ( A )	1	EPDM	57 PISTON	1	CAST ALUMINIUM ALLOY
1a INSERTED NUT	4	COPPER ALLOY Used for PVC&PP Body. STAINLESS STEEL Used for PVDF Body.	17 SHEET RING	1	STAINLESS STEEL	58 STEM ( A )	1	STAINLESS STEEL
3 DIAPHRAGM	1	EPDM, PTFE, Others ( )	18 STOPPER	1	STAINLESS STEEL	60 O-RING ( D )	2	NBR
3a INSERTED METAL OF DIAPHRAGM ( A )	1	STAINLESS STEEL	21 GAUGE COVER	1	PC	61 O-RING ( E )	1	NBR
4 CUSHION	1	EPDM, Others ( ) Used for PTFE Diaphragm	23 STUD BOLT · NUT	4 Sets	STAINLESS STEEL	62 O-RING ( F )	1	NBR
4a CUSHION COVER	1	Nothing, PVDF Used for PTFE Diaphragm	24 BOLT · NUT ( A )	-	STAINLESS STEEL	64 SHEET GASKET ( C )	1	NBR
5 COMPRESSOR	1	PVDF	29 CONICAL SPRING WASHER	-	STAINLESS STEEL Used for PVDF Body.	65 BOLT ( A )	-	STAINLESS STEEL
6 COMPRESSOR NUT	1	COPPER ALLOY	53 CYLINDER BODY	1	CAST ALUMINIUM ALLOY Epoxy Coat	66 INDICATOR ROD	1	STAINLESS STEEL
7 COMPRESSOR PIN	1	STAINLESS STEEL	54 CYLINDER BONNET	1	CAST ALUMINIUM ALLOY Epoxy Coat	67 SPRING	1	STAINLESS STEEL
			56 STAND ( A )	1	CAST ALUMINIUM ALLOY Epoxy Coat	68 SPRING WASHER	1	STAINLESS STEEL
						69 LOCK NUT ( B )	2	STAINLESS STEEL
						70 CHECK VALVE FOR EXHAUST	1	COPPER ALLOY

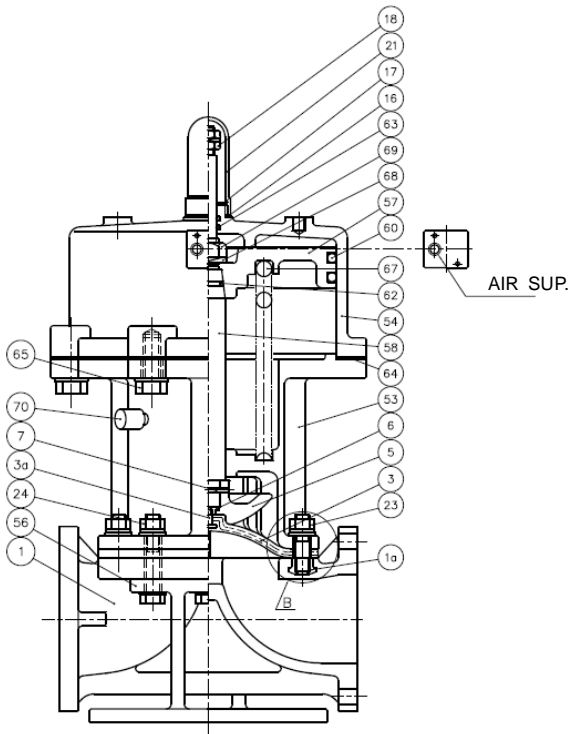
Diaphragms except EPDM and PTFE are available in FKM, VIFLON®C (FKM-C), VIFLON®F (FKM-F), CSM and NBR when required.  
The shape and appearance of assembly differ a little with nominal size compared to this drawing.



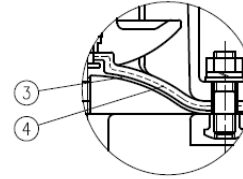
### Parts list

[AUTOMATIC PNEUMATIC TYPE AV AIR TO CLOSE]

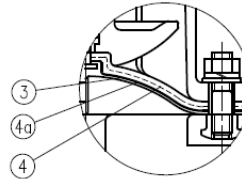
TYPE 15



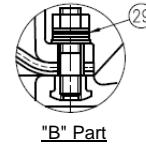
PTFE diaphragm



PTFE with cushion cover



In Case of PVDF Body.



"B" Part

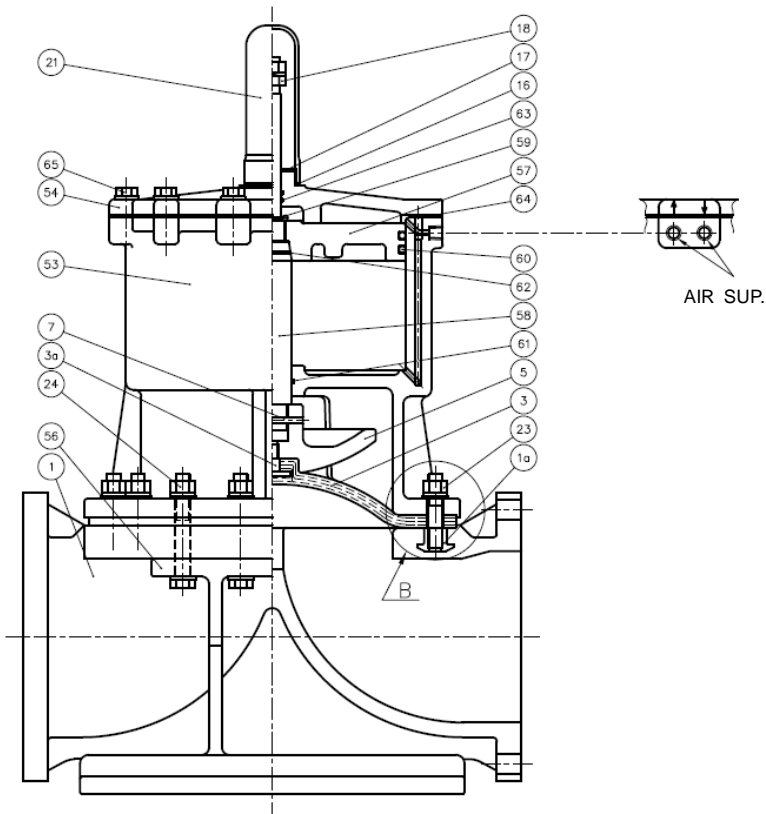
PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1	1	PVC, PP, PVDF	16	1	EPDM	57	1	CAST ALUMINIUM ALLOY
1a	4	COPPER ALLOY	17	1	STAINLESS STEEL	58	1	STAINLESS STEEL
		Used for PVC&PP Body. STAINLESS STEEL	18	1	STAINLESS STEEL	60	2	NBR
3	1	EPDM, PTFE, Others ( )	21	1	PC	62	1	NBR
3a	1	STAINLESS STEEL	23	4	STAINLESS STEEL	63	1	NBR
4	1	EPDM, Others ( )	24	-	STAINLESS STEEL	64	1	NBR
		Used for PTFE Diaphragm	29	-	STAINLESS STEEL	65	-	STAINLESS STEEL
4a	1	Nothing, PVDF	53	1	CAST ALUMINIUM ALLOY Epoxy Coat	66	1	STAINLESS STEEL
5	1	PVDF				54	1	CAST ALUMINIUM ALLOY Epoxy Coat
			6	1	COPPER ALLOY	56	1	CAST ALUMINIUM ALLOY Epoxy Coat
7	1	STAINLESS STEEL	70	1	COPPER ALLOY	69	2	STAINLESS STEEL

Diaphragms except EPDM and PTFE are available in FKM, VIFLON®C (FKM-C), VIFLON®F (FKM-F), CSM and NBR when required.  
The shape and appearance of assembly differ a little with nominal size compared to this drawing.

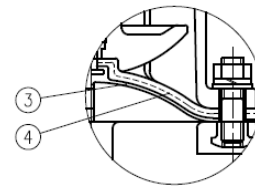
**Parts list**

[AUTOMATIC PNEUMATIC TYPE AV DOUBLE ACTING]

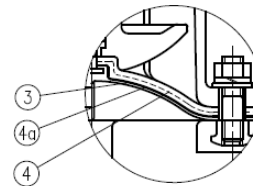
TYPE 72



In case material of diaphragm is PTFE.



In case material of diaphragm is PTFE with cushion cover.



In Case of PVDF Body.



"B" Part

PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1	1	PVC, PP, PVDF	5	1	Chromized CAST IRON	53	1	CAST ALUMINIUM ALLOY Epoxy Coat
1a	4	COPPER ALLOY Used for PVC&PP Body.	7	1	STAINLESS STEEL	54	1	CAST ALUMINIUM ALLOY Epoxy Coat
		STAINLESS STEEL Used for PVDF Body.	16	1	EPDM	56	1	CAST ALUMINIUM ALLOY
3	1	EPDM, PTFE, Others ( )	17	1	STAINLESS STEEL	57	1	CAST ALUMINIUM ALLOY
3a	1	STAINLESS STEEL	18	1	STAINLESS STEEL	58	1	STAINLESS STEEL
4	1	EPDM, Others ( ) Used for PTFE Diaphragm	21	1	PC	59	1	SPRING STEEL
		Nothing, PVDF Used for PTFE Diaphragm	23	4Sets	STAINLESS STEEL	60	2	NBR
4a	1	Nothing, PVDF Used for PTFE Diaphragm	24	-	STAINLESS STEEL	61	1	NBR
			29	-	STAINLESS STEEL Used for PVDF Body.	62	1	NBR
			64	1	NBR	63	2	NBR
			65	-	STAINLESS STEEL			

Diaphragms except EPDM and PTFE are available in FKM, VIFLON®C (FKM-C), VIFLON®F (FKM-F), CSM and NBR when required.  
The shape and appearance of assembly differ a little with nominal size compared to this drawing.

## Compatible Actuator

Equipped with stopper that can be adjusted at full closed position.  
Air piping is compatible with NAMUR standard.



### BASIC SPECIFICATIONS

DOUBLE ACTING	ACTUATOR TYPE		ACTUATOR TYPE		UNIT
	AV-4DA	AV-5DA	AV-6DA	AV-7DA	
OPERATING PRESSURE	0.4-0.6		0.4-0.6		MPa
AIR CONSUMPTION	36.6	67.3	87.3	214	NI/OPEN & CLOSE (0.4MPa)
AIR SUPPLY BORE	Rc1/4		Rc3/8		

AIR TO OPEN	ACTUATOR TYPE		UNIT
	AV-4AO	AV-5AO	
OPERATING PRESSURE	0.4-0.6		MPa
AIR CONSUMPTION	55.6	84.2	NI/OPEN & CLOSE (0.4MPa)
AIR SUPPLY BORE	Rc1/4		

AIR TO CLOSE	ACTUATOR TYPE		UNIT
	AV-4AS	AV-5AS	
OPERATING PRESSURE	0.4-0.6		MPa
AIR CONSUMPTION	38.4	60.5	NI/OPEN & CLOSE (0.4MPa)
AIR SUPPLY BORE	Rc1/4		

### OPTION COMBINATION

COMBINATION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13
SOLENOID VALVE	○	—	—	○	○	○	—	○	○	○	○	—	—
FILTER REGULATOR	—	—	—	○	—	—	—	○	○	—	○	—	○
SPEED CONTROLLER	—	○	—	—	○	—	○	○	—	○	○	—	—
LIMIT SWITCH	—	—	○	—	—	○	○	—	○	○	○	—	—
POSITIONER (E/P, P/P)	—	—	—	—	—	—	—	—	—	—	—	○	○

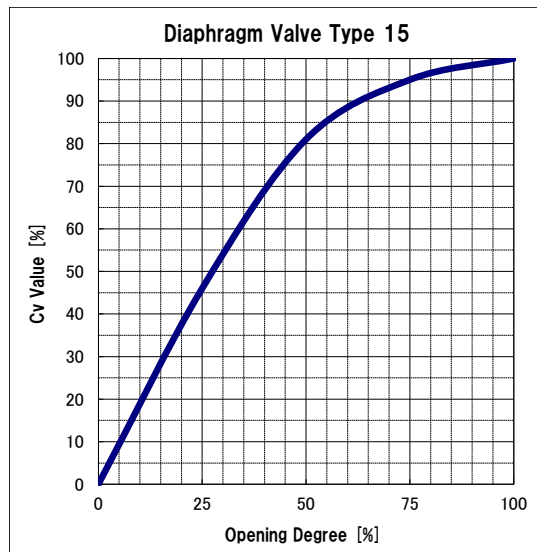
### OPTION LIST

OPTION LIST	MANUFACTURER	BASIC SPECIFICATIONS
SOLENOID VALVE NAMUR	KONAN	<ul style="list-style-type: none"> <li>• WATER PROOF, EXPLOSION PROOF</li> <li>• POWER SOURCE AC100V, AC110V, AC200V, AC220V, DC24V</li> </ul>
FILTER REGULATOR	KONAN	
SPEED CONTROLLER	KONAN	* 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	AZBIL (formerly YAMATAKE)	<ul style="list-style-type: none"> <li>• WATER PROOF, EXPLOSION PROOF</li> <li>• OPEN: 1pc, CLOSE: 1pc, OPEN/CLOSE: 2pcs</li> </ul>
POSITIONER	YTC	<ul style="list-style-type: none"> <li>• E/P: INPUT SIGNAL CURRENT DC 4-20 mA</li> <li>• P/P: INPUT SIGNAL AIR PRESSURE 0.02 - 0.1 MPa</li> </ul>
MANUAL OVERRIDE	ASAHI YUKIZAI	
FULL OPENING ADJUSTMENT	ASAHI YUKIZAI	
SPECIAL PAINTING (ACTUATOR ONLY)	ASAHI YUKIZAI	

### Cv value for each opening degree

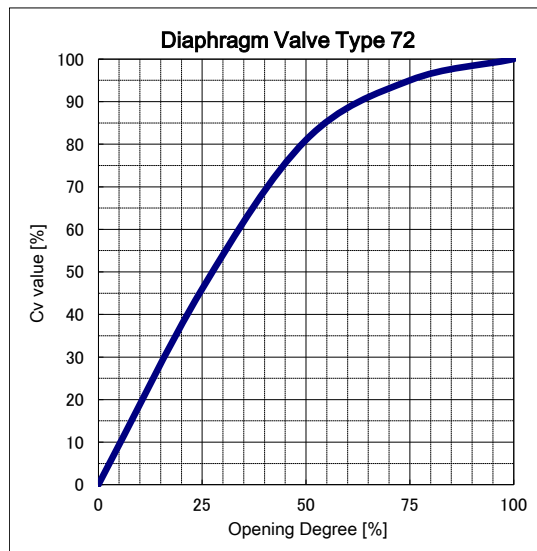
Diaphragm Valve Type 15  
FULL-OPEN Cv VALUE

mm	125	150
inch	5	6
FULL-OPEN Cv VALUE	300	400



Diaphragm Valve Type 72  
FULL-OPEN Cv VALUE

mm	200	250
inch	8	10
FULL-OPEN Cv VALUE	700	1000



### Product weight

AUTOMATIC PNEUMATIC TYPE AV

TYPE 15

Unit : kg

mm	inch	DOUBLE ACTING			AIR TO OPEN			AIR TO CLOSE		
		U-PVC	PP	PVDF	U-PVC	PP	PVDF	U-PVC	PP	PVDF
125	5	31.0	28.5	33.0	138	136	141	73.0	70.5	75.0
150	6	82.5	78.5	85.0	158	154	160	87.5	83.5	90.0

TYPE 72

Unit : kg

mm	inch	DOUBLE ACTING		
		U-PVC	PP	PVDF
200	8	113	107	118
250	10	183	173	190

## Product model code list

### AUTOMATIC PNEUMATIC TYPE AV TYPE 15

ACTUATION	TYPE	ACTUATOR TYPE	ACTION /POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
<b>A</b>	<b>15</b>	<b>V</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>F</b>	<b>*</b>	<b>***</b>
<b>A</b> AUTOMATIC VALVE	<b>15</b> TYPE 15	<b>PNEUMATIC</b> <b>V</b> TYPE AV	<b>PNEUMATIC</b> <b>F</b> DOUBLE ACTING <b>G</b> AIR TO OPEN <b>S</b> AIR TO CLOSE	<b>U</b> U-PVC <b>P</b> PP <b>F</b> PVDF	<b>E</b> EPDM <b>T</b> PTFE	<b>F</b> FLANGED	<b>1</b> JIS10K <b>D</b> DIN <b>A</b> ANSI	<b>125</b> 125mm <b>150</b> 150mm

### AUTOMATIC PNEUMATIC TYPE AV TYPE 72

ACTUATION	TYPE	ACTUATOR TYPE	ACTION /POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
<b>A</b>	<b>72</b>	<b>V</b>	<b>F</b>	<b>*</b>	<b>*</b>	<b>F</b>	<b>*</b>	<b>***</b>
<b>A</b> AUTOMATIC VALVE	<b>72</b> TYPE 72	<b>PNEUMATIC</b> <b>V</b> TYPE AV	<b>PNEUMATIC</b> <b>F</b> DOUBLE ACTING	<b>U</b> U-PVC <b>P</b> PP <b>F</b> PVDF	<b>E</b> EPDM <b>T</b> PTFE	<b>F</b> FLANGED	<b>1</b> JIS10K <b>D</b> DIN <b>A</b> ANSI	<b>200</b> 200mm <b>250</b> 250mm

## Installation, Operation and Maintenance Manual

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

[https://www.asahi-yukizai.co.jp/en/product/detail/140125\\_000539.html](https://www.asahi-yukizai.co.jp/en/product/detail/140125_000539.html)

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