

DIAPHRAGM VALVE TYPE 72

- NEAR-LINEAR FLOW CHARACTERISTICS
- TRANSPARENT GAUGE COVER (MADE OF POLYCARBONATE) PROTECTS THE INTERNAL AND EXTERNAL PARTS FROM CORROSIVE CHEMICAL SOLUTIONS AND GASES.
- THE GAUGE COVER ALSO SERVES AS AN INDICATOR, ALLOWING EASY CHECK OF OPENING DEGREE.

BASIC SPECIFICATIONS

VALVE TYPE ————— DIAPHRAGM VALVE TYPE 72

SIZE ————— 200 mm, 250 mm (8 inch, 10 inch)

BODY MATERIAL ————— **U-PVC** **PP** **PVDF**

SEAL MATERIAL / DIAPHRAGM ————— **EPDM** **PTFE** **FKM** etc.

CONNECTION / FLANGED — JIS5K, JIS10K, DIN PN10, ANSI CLASS150

MODEL A (STANDARD)	FLUID TEMPERATURE	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm ²)				CONNECTION METHOD
		DIAPHRAGM: RUBBER		DIAPHRAGM: PTFE		
		200mm	250mm	200mm	250mm	FLANGED
U-PVC	0°C ~ 60°C	0.3 {3.1}	0.3 {3.1}	0.2 {2.0}	0.2 {2.0}	○
PP	-20°C ~ 90°C	0.5 {5.1}	0.45 {4.6}	0.4 {4.1}	0.4 {4.1}	○
PVDF	-40°C ~ 120°C	0.5 {5.1}	0.45 {4.6}	0.4 {4.1}	0.4 {4.1}	○

MODEL B (OPTION)	FLUID TEMPERATURE	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm ²)				CONNECTION METHOD
		DIAPHRAGM: RUBBER		DIAPHRAGM: PTFE		
		200mm	250mm	200mm	250mm	FLANGED
U-PVC	0°C ~ 60°C	0.5 {5.1}	0.45 {4.6}	0.4 {4.1}	0.4 {4.1}	○
PP	-20°C ~ 90°C	0.5 {5.1}	0.45 {4.6}	0.4 {4.1}	0.4 {4.1}	○
PVDF	-40°C ~ 120°C	—	—	0.4 {4.1}	0.4 {4.1}	○

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.

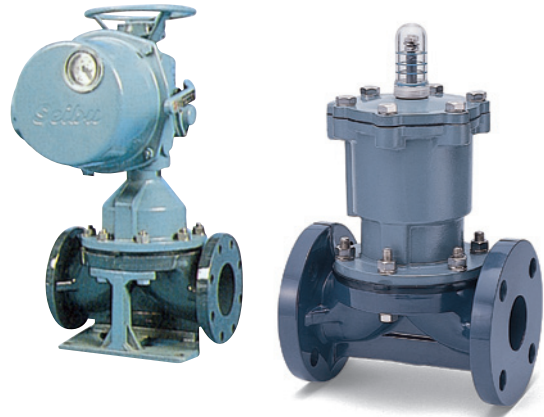
* Concerning the allowable pressure for each temperature, material and actuator type, see the technical documents at the end of this catalog.

* 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 nuts between the bonnet and the body to the "bonnet tightening torque". (Failure to do so may cause fluid leakage.)

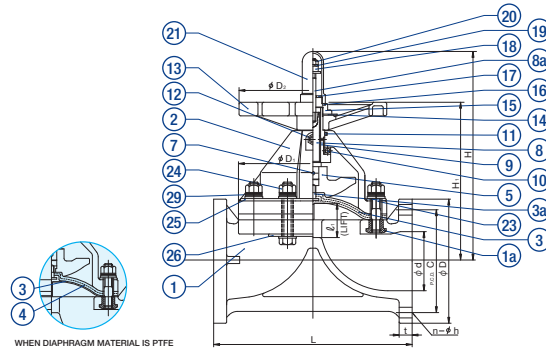
MANUAL



AUTOMATIC



PARTS LIST **MANUAL**



PART NO. / NAME	QTY	MATERIAL	PART NO. / NAME	QTY	MATERIAL	PART NO. / NAME	QTY	MATERIAL
① BODY	1	BODY — BONNET U-PVC — U-PVC PP — PP PVDF — PPG (1) PVDF — PVDF	⑨ SLEEVE (A)	1	C3604	⑲ SPRING WASHER	1	SUS304
② BONNET	1		⑩ THRUST BEARING (A)	1	SUJ2	⑳ SET NUT	1	SUS304
③ DIAPHRAGM	1	EPDM, PTFE, etc.	⑪ O-RING (A)	1	NBR	㉑ GAUGE COVER	1	PC
④ CUSHION (2)	1	EPDM, etc.	⑫ GREASE NIPPLE	1	C3604	㉒ BOLT/NUT	—	SUS304
⑤ COMPRESSOR	1	FC200 (Unichrome plating)	⑬ HANDLE	1	PP	㉓ BOLT/NUT	—	SUS304
⑦ COMPRESSOR PIN	1	SUS304	⑭ NAMEPLATE	1	U-PVC	㉔ BONNET TOP LINER (3)	1 SET	SUS304
⑧ STEM	1	C3604	⑮ CAP	1	PP	㉕ BODY LINER (3)	1 SET	SUS304
⑧a DISPLAY LOT	1	SUS304	⑯ GASKET (A)	1	EPDM	㉖ DISC SPRING WASHER (4)	—	SUS304
			⑰ VALVE SEAT	1	SUS304	㉗ STUD NUT	—	SUS304
			⑱ STOPPER	1	SS400 (Unichrome plating)	㉘ EMBEDDED DIAPHRAGM FITTING (A)	1	SUS304, TITANIUM (with palladium)

NOTE (1) Bonnet PPG 15 – 100 mm: black. 125 – 250 mm: ivory. (2) is used when the diaphragm material is PTFE. (3) is used when the body material is PP or PVDF. (4) is used when the body material is PVDF. (5) The dimensional drawing and part drawing show a product that uses PVDF as the body material.

HANDLE ROTATION [FULL OPEN (ROTATION/LIFT) FULL CLOSE] **MANUAL**

SIZE	ROTATION	SIZE	ROTATION
200mm (8inch)	19	250mm (10inch)	25

COMPATIBLE ACTUATOR **AUTOMATIC**

PNEUMATIC

TYPE AV

For detailed specifications, see **P.118**

ELECTRIC

TYPE S

For detailed specifications, see **P.131**

PRODUCT MODEL
CODE LIST
MANUAL

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
V	72	MH	*	*	F	*	***
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
V MANUAL VALVE	72 TYPE 72	MH ROUND HANDLE	U U-PVC P PP F PVDF G PVDF+PPG	E EPDM T PTFE	F FLANGED	1 10K 5 5K D DIN A ANSI	200 200mm • 250 250mm

PRODUCT MODEL
CODE LIST
AUTOMATIC

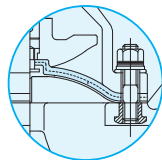
ACTUATION	TYPE	ACTUATOR TYPE	ACTION / POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
A	72	*	*	*	*	F	*	***
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
A AUTOMATIC VALVE	72 TYPE 72	PNEUMATIC V TYPE AV ELECTRIC S TYPE S	PNEUMATIC F DOUBLE ACTING ELECTRIC 3 Three-Phase AC200V 4 Three-Phase AC400V	U U-PVC P PP F PVDF	E EPDM T PTFE	F FLANGED	1 JIS10K 5 JIS5K D DIN A ANSI	200 200mm • 250 250mm

MANUAL

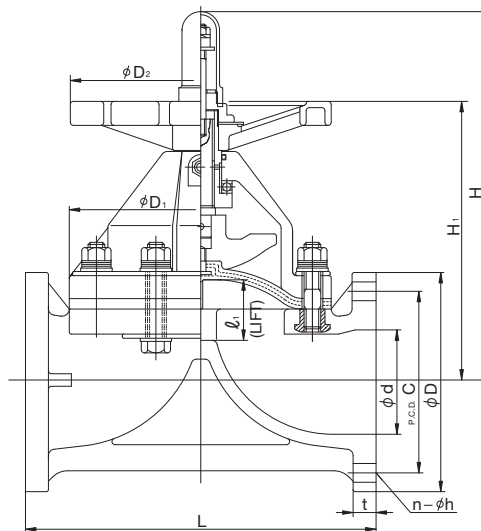
DIAPHRAGM VALVE TYPE 72

TYPE—V72MH

CONNECTION / FLANGED—JIS, DIN, ANSI



WHEN DIAPHRAGM MATERIAL IS PTFE



■ JIS, DIN (Unit: mm)

mm	d	D ₁	D ₂	ℓ	H ₁	H	JIS								DIN PN10									
							JIS5K				JIS10K				t		D	C	n	h	L	t		
							D	C	n	h	D	C	n	h	L	U-PVC						PP PVDF	D	C
200	196	430	410	95	419	627	320	280	8	23	330	290	12	23	570	28	32	295	340	8	22	600	30	34
250	247	540	560	128	510	778	385	345	12	23	400	355	12	25	680	30	37	350	395	12	22	730	34	36

■ ANSI (Unit: inch)

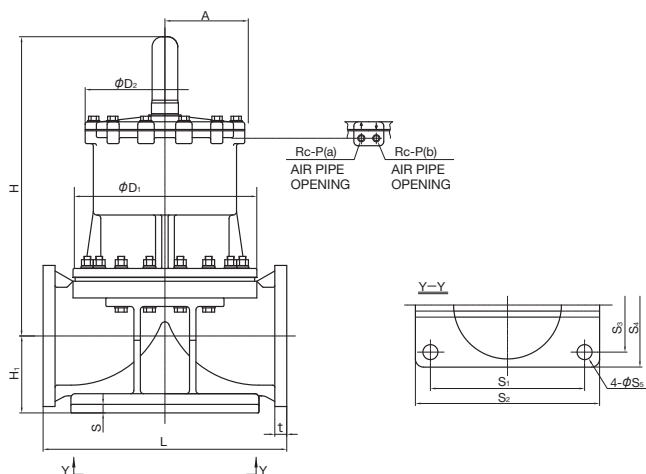
inch	mm	d	D ₁	D ₂	ℓ	H ₁	H	ANSI					
								D	C	n	h	L	t
8	200	7.72	16.93	16.14	3.74	16.50	24.69	13.50	11.75	8	0.88	22.44	1.26
10	250	9.72	21.26	22.05	5.04	20.08	30.63	16.00	14.25	12	1.00	26.77	1.46

AUTOMATIC **PNEUMATIC** **TYPE AV**

DOUBLE ACTING
AIR TO OPEN
AIR TO CLOSE

DIAPHRAGM VALVE TYPE 72

TYPE—A72V
CONNECTION / FLANGED—JIS, DIN, ANSI



ACTUATOR SELECTION CHART

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

For detailed specifications, see **P.118**

■ JIS, DIN (Unit: mm)

mm	D1	D2	A	H	H1	S	S1	S2	S3	S4	S5	P	JIS5K, JIS10K			DIN PN10		
													L	U-PVC	PP PVDF	L	U-PVC	PP PVDF
200	430	385	195	742	179	20	390	440	330	380	23	3/8	570	28	32	600	30	34
250	540	520	260	890	215	23	470	540	390	460	25	3/8	680	30	37	730	34	36

■ ANSI (Unit: inch)

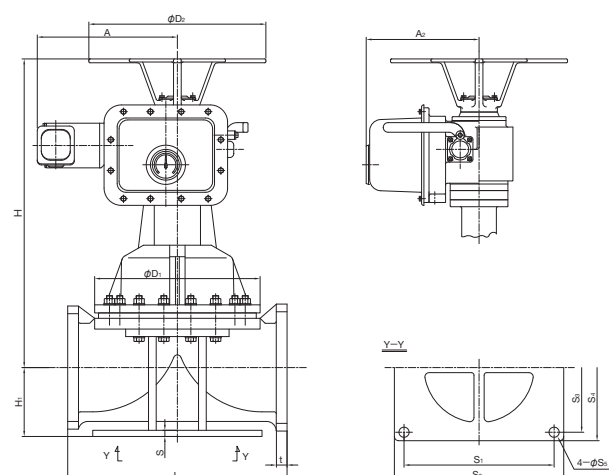
inch	mm	D1	D2	A	H	H1	S	S1	S2	S3	S4	S5	P	ANSI CLASS150		
														L	t	t
8	200	16.93	15.16	7.68	29.21	7.05	0.79	15.35	17.32	12.99	14.96	0.91	3/8	22.44	1.26	
10	250	21.26	20.47	10.24	35.04	8.46	0.91	18.50	21.26	15.35	18.11	0.98	3/8	26.77	1.46	

AUTOMATIC **ELECTRIC** **TYPE S**

Three-Phase AC200V
Three-Phase AC400V

DIAPHRAGM VALVE TYPE 72

TYPE—A72S
CONNECTION / FLANGED—JIS, DIN, ANSI



ACTUATOR SELECTION CHART

SIZE	ACTUATOR TYPE
200mm (8inch)	LTMD-01 (AUTOMATIC RETURN MECHANISM)
	LTKD-01 (MANUAL RETURN MECHANISM)
250mm (10inch)	LTMD-02 (AUTOMATIC RETURN MECHANISM)
	LTKD-02 (MANUAL RETURN MECHANISM)

For detailed specifications, see **P.131**

■ JIS, DIN (Unit: mm)

mm	D1	D2	H	H1	A	A2	S	S1	S2	S3	S4	JIS5K, JIS10K			DIN PN10		
												L	U-PVC	PP PVDF	L	U-PVC	PP PVDF
200	430	460	802	179	357	293	20	390	440	330	380	570	28	32	600	30	34
250	540	460	989	215	375	328	23	470	540	390	460	680	30	37	730	34	36

■ ANSI (Unit: inch)

inch	mm	D1	D2	H	H1	A	A2	S	S1	S2	S3	S4	ANSI CLASS150		
													L	t	t
8	200	16.93	18.11	31.57	7.05	14.06	11.54	0.79	15.35	17.32	12.99	14.96	22.44	1.26	
10	250	21.26	18.11	38.94	8.46	14.76	12.91	0.91	18.50	21.26	15.35	18.11	26.77	1.46	