DIAPHRAGM VALVE TYPE 14

- NEAR-LINEAR FLOW CHARACTERISTICS
- A NEW TYPE OF RUBBER HAVING A HIGH RELIABILITY IN LEAKAGE PREVENTION IS USED FOR THE DIAPHRAGM AND CUSHION.
- THE ORIGINAL DESIGN ACHIEVES HIGH SEALING PERFORMANCE WITH LOW TORQUE.
- BAYONET STRUCTURE ALLOWING QUICK DIAPHRAGM REPLACEMENT
- EQUIPPED WITH A BOTTOM STAND ALLOWING EASY AND SECURE REPLACEMENT (See P. 69 for details.)

MANUAL



BASIC SPECIFICATIONS

VALVE TYPE——**DIAPHRAGM VALVE TYPE 14**

SIZE——**15 mm—100 mm (1/2 inch—4 inch)**

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

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

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

HIGH PURITY SERIES——**LUBRICANT FREE**

	FLUID TEMPERATURE	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa{kgf/cm²}	CONNECTION METHOD FLANGED
U-PVC	0℃～ 60℃	1.0 {10.2}	○
C-PVC	0℃～ 90℃	1.0 {10.2}	○
PP	-20℃～ 90℃	1.0 {10.2}	○
PVDF	-40℃～120℃	1.0 {10.2}	○

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.

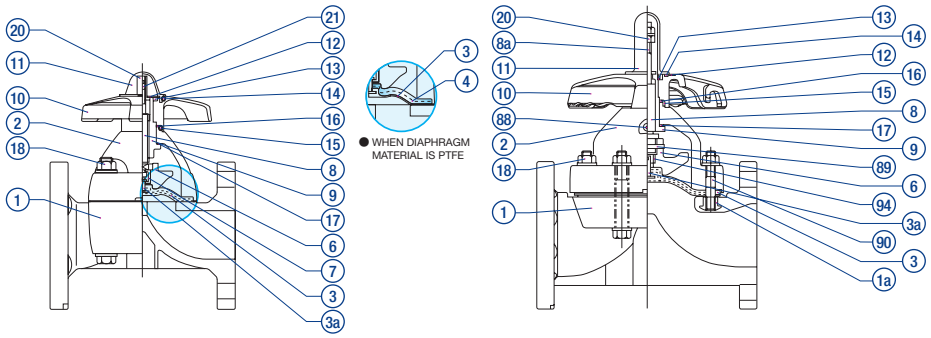
* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.

* 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.)

AUTOMATIC



PARTS LIST MANUAL



PART NO. / NAME	QTY	MATERIAL
①BODY	1	BODY——BONNET U-PVC——U-PVC C-PVC——PP PP——PP
②BONNET	1	PVDF——PPG(1) PVDF——PVDF
③DIAPHRAGM	1	EPDM, PTFE, etc.
3a EMBEDDED DIAPHRAGM FITTING	1	SUS304
④CUSHION(2)	1	EPDM
⑥COMPRESSOR	1	PVDF
⑦JOINT FITTING(3)	1	SUS304

PART NO. / NAME	QTY	MATERIAL
⑧STEM	1	C3604
8a DISPLAY LOT(4)	1	SUS304
⑨SLEEVE	1	C3604
⑩HANDLE	1	PP
⑪GAUGE COVER	1	PC
⑫NAMEPLATE	1	U-PVC
⑬C-SHAPED STOP RING	1	SUS304
⑭O-RING (A)	1	EPDM
⑮O-RING (B)	1	EPDM
⑯THRUST RING (A)	1	UHMWPE

PART NO. / NAME	QTY	MATERIAL
⑰THRUST RING (B)	1	UHMWPE
⑱BOLT/NUT (A)	4	SUS304
⑳STOPPER	1	C3604(3), SUS304(4)
㉑SCREW(3)	1	SUS304
88 GREASE NIPPLE(4)	1	C3604
89 COMPRESSOR PIN(4)	1	SUS304
90 STUD BOLT/NUT(4)	4	SUS304
94 COMPRESSOR	1	SUS304
1a STUD NUT(4)	4	C3604(5), SUS304(6)

NOTE (1) Bonnet PPG 15 – 100 mm: black. 125 – 250 mm: ivory. (2) is used when the diaphragm material is PTFE. (3) is used for sizes of 50 mm or less. (4) is used for sizes of 65 mm or more. (5) is used when the body material is U-PVC, C-PVC or PP. (6) is used when the body material is PVDF.

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

SIZE	ROTATION
15mm (1/2inch)	3.3
20mm (3/4inch)	3.3
25mm (1inch)	4.0
32mm (1 1/4inch)	4.0
40mm (1 1/2inch)	5.0

SIZE	ROTATION
50mm (2inch)	6.0
65mm (2 1/2inch)	9.0
80mm (3inch)	10.0
100mm (4inch)	10.0

COMPATIBLE ACTUATOR AUTOMATIC

PNEUMATIC TYPE AN — For detailed specifications, see P.117

PNEUMATIC TYPE AV — For detailed specifications, see P.118

PNEUMATIC TYPE AP — For detailed specifications, see P.122

ELECTRIC TYPE H — For detailed specifications, see P.126

ELECTRIC TYPE M — For detailed specifications, see P.127

PRODUCT MODEL CODE LIST — MANUAL

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	HIGH PURITY SERIES
V	14	MH	*	*	F	*	***	1
V MANUAL VALVE	14 TYPE 14	MH ROUND HANDLE	U U-PVC C C-PVC P PP F PVDF G PVDF+PPG	E EPDM T PTFE	F FLANGED	1 JIS10K D DIN A ANSI	015 15mm ~ 100 100mm	1 LUBRICANT FREE

PRODUCT MODEL CODE LIST — AUTOMATIC

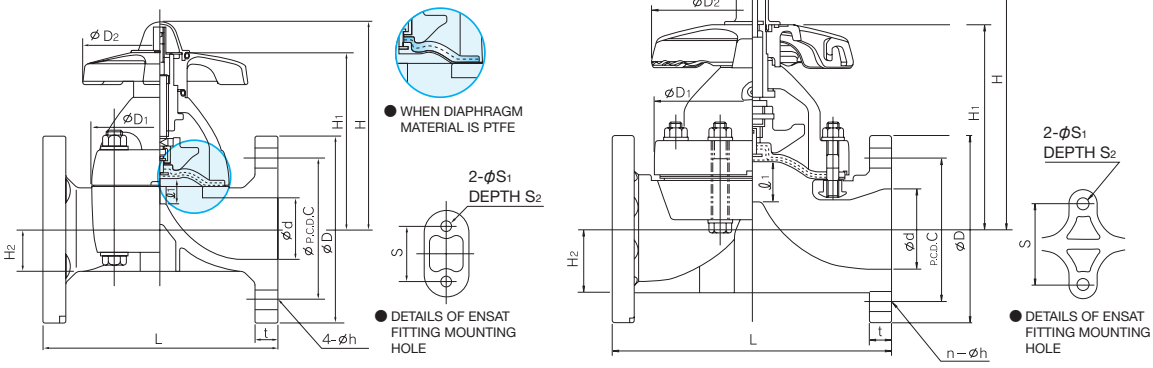
ACTUATION	TYPE	ACTUATOR TYPE	ACTION / POWER SOURCE	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	HIGH PURITY SERIES
A	14	*	*	*	*	F	*	***	1
A AUTOMATIC VALVE	14 TYPE 14	PNEUMATIC N TYPE AN V TYPE AV P TYPE AP ELECTRIC H TYPE H M TYPE M	PNEUMATIC F DOUBLE ACTING G AIR TO OPEN H AIR TO OPEN (TYPE AP,For 1.0MPa) S AIR TO CLOSE ELECTRIC 1 Single-Phase 100V 2 Single-Phase 200V D DC24V	U U-PVC C C-PVC P PP F PVDF	E EPDM T PTFE	F FLANGED	1 JIS10K D DIN A ANSI	015 15mm ~ 100 100mm	1 LUBRICANT FREE

MANUAL

DIAPHRAGM VALVE TYPE 14

TYPE——V14MH

CONNECTION / FLANGED——JIS, DIN, ANSI



■ JIS, DIN (Unit: mm)

mm	d	D1	D2	ℓ1	H	H1	H2	S	S1	S2	JIS10K D	JIS10K C	JIS10K n	JIS10K h	JIS10K L	JIS10K t U-PVC C-PVC	JIS10K t PP PVDF	DIN PN10 D	DIN PN10 C	DIN PN10 n	DIN PN10 h	DIN PN10 L	DIN PN10 t U-PVC C-PVC	DIN PN10 t PP PVDF
15	16	54×66	100	10	104	86	19.5	25	7	13	95	70	4	15	110	12	12	95	65	4	14	130	12	12
20	20	54×66	100	10	106	88	17.5	25	7	13	100	75	4	15	120	13	13	105	75	4	14	150	13	13
25	25	67×80	100	12	111	93	18.5	25	7	13	125	90	4	19	130	13	13	115	85	4	14	160	13	13
32	32	67×80	100	12	116	97	22.5	25	7	13	135	100	4	19	142	16	16	140	100	4	18	180	16	16
40	40	108×108	156	21	177	144	27.5	45	9	15	140	105	4	19	180	16	16	150	110	4	18	200	20	20
50	52	123×123	156	25	191	158	36.0	45	9	15	155	120	4	19	210	20	20	165	125	4	18	230	22	22
65	67	175	220	34	266	188	61	85	11	20	175	140	4	19	250	22	23	185	145	4	18	290	22	22
80	78	201	220	42	280	202	63	100	15	28	185	150	8	19	280	22	23	200	160	8	18	310	24	24
100	100	241	257	50	329	241	78	120	15	28	210	175	8	19	340	22	24	220	180	8	18	350	24	26

■ ANSI (Unit: inch)

inch	mm	d	D1	D2	ℓ1	H	H1	H2	S	S1	S2	ANSI CLASS150 D	C	n	h	L GRINNELL STANDARD	L AV STANDARD	t U-PVC C-PVC	t PP PVDF
1/2	15	0.63	2.13×2.60	3.94	0.39	4.09	3.39	0.77	0.98	0.28	0.51	3.50	2.38	4	0.62	4.25	4.33	0.43	0.43
3/4	20	0.79	2.13×2.60	3.94	0.39	4.17	3.46	0.69	0.98	0.28	0.51	3.88	2.75	4	0.62	5.88	4.72	0.51	0.51
1	25	0.98	2.64×3.15	3.94	0.47	4.37	3.66	0.73	0.98	0.28	0.51	4.25	3.12	4	0.62	5.88	5.12	0.59	0.59
1 1/4	32	1.26	2.64×3.15	3.94	0.47	4.57	3.82	0.89	0.98	0.28	0.51	4.62	3.50	4	0.62	6.38	-	0.63	0.63
1 1/2	40	1.57	4.25×4.25	6.14	0.83	6.97	5.67	1.08	1.77	0.35	0.59	5.00	3.88	4	0.62	6.94	7.09	0.63	0.63
2	50	2.05	4.84×4.84	6.14	0.98	7.52	6.22	1.42	1.77	0.35	0.59	6.00	4.75	4	0.75	7.94	8.27	0.79	0.79
2 1/2	65	2.64	6.89	8.66	1.34	10.47	7.40	2.40	3.35	0.43	0.79	7.00	5.50	4	0.75	-	9.84	0.87	0.91
3	80	3.07	7.91	8.66	1.65	11.02	7.95	2.48	3.94	0.59	1.10	7.50	6.00	4	0.75	10.37	11.02	0.87	0.91
4	100	3.94	9.49	10.12	1.97	12.95	9.49	3.07	4.72	0.59	1.10	9.00	7.50	8	0.75	12.93	13.39	0.87	0.94