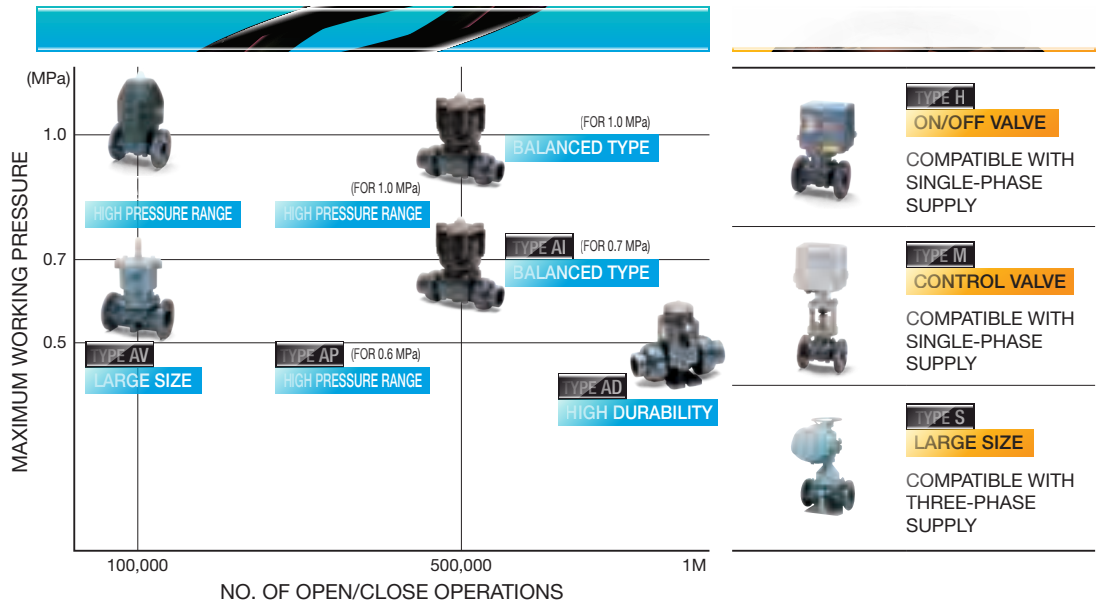


ASAHI

DIAPHRAGM VALVE

- P.015 DIAPHRAGM VALVE TYPE 14
- P.021 TRUE UNION DIAPHRAGM VALVE TYPE 14
- P.025 DIAPHRAGM VALVE TYPE 15
- P.031 DIAPHRAGM VALVE TYPE 72
- P.035 DIAPHRAGM VALVE TYPE AI
- P.035 TRUE UNION DIAPHRAGM VALVE TYPE AI
- P.037 DIAPHRAGM VALVE TYPE 16
- P.039 OPTIONS





AVAILABLE OPTIONS **AUTOMATIC** * Options other than those listed below are also available. Contact us for inquiry.

| | 100,000 | 500,000 | 1M | 1.5M | 2M | 3M | 4M | 5M |
|------------------------------------|---------|---------|--------------------|-------------|----------|----------|----------|----------|
| LIMIT SWITCH | | | | | | STANDARD | | |
| POSITIONER | | | | | | | STANDARD | |
| MANUAL OVERRIDE | | | | | | STANDARD | STANDARD | STANDARD |
| FULL OPENING ADJUSTMENT | | | INDICATOR PROVIDED | | | | | |
| SPACE HEATER | | | | | | STANDARD | | STANDARD |
| POTENTIOMETER | | | | | | | | |
| R/I TRANSMITTER | | | | | | | | |
| SPECIAL PAINTING (ACTUATOR ONLY) | | | | | | | | |
| METAL INSERT PROVIDED (WITH ENSAT) | | | | UP TO 100mm | STANDARD | | | |

* For information about the support for the limit switch (micro switch), contact us.



SOLENOID VALVE SPEED CONTROLLER LIMIT SWITCH E/P POSITIONER FULL OPENING ADJUSTMENT

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



AUTOMATIC



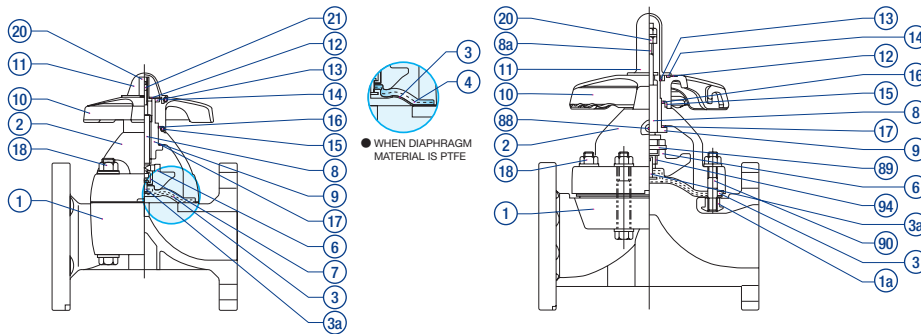
BASIC SPECIFICATIONS

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/cm ²) | CONNECTION METHOD |
|--------------|-------------------|---|-------------------|
| | | | FLANGED |
| U-PVC | 0°C ~ 60°C | 1.0 {10.2} | ○ |
| C-PVC | 0°C ~ 90°C | 1.0 {10.2} | ○ |
| PP | -20°C ~ 90°C | 1.0 {10.2} | ○ |
| PVDF | -40°C ~ 120°C | 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.)

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 C-PVC — PP PP — PP PVDF — PVDF | ⑧ STEM | 1 | C3604 | ⑰ THRUST RING (B) | 1 | UHMWPE |
| ② BONNET | 1 | PVDF — PPG ⁽¹⁾ PVDF — PVDF | ⑧a DISPLAY LOT ⁽⁴⁾ | 1 | SUS304 | ⑱ BOLT/NUT (A) | 4 | SUS304 |
| ③ DIAPHRAGM | 1 | EPDM, PTFE, etc. | ⑨ SLEEVE | 1 | C3604 | ⑳ STOPPER | 1 | C3604 ⁽³⁾ , SUS304 ⁽⁴⁾ |
| ③a EMBEDDED DIAPHRAGM FITTING | 1 | SUS304 | ⑩ HANDLE | 1 | PP | ㉑ SCREW ⁽³⁾ | 1 | SUS304 |
| ④ CUSHION ⁽²⁾ | 1 | EPDM | ⑪ GAUGE COVER | 1 | PC | ㉒ GREASE NIPPLE ⁽⁴⁾ | 1 | C3604 |
| ⑥ COMPRESSOR | 1 | PVDF | ⑫ NAMEPLATE | 1 | U-PVC | ㉓ COMPRESSOR PIN ⁽⁴⁾ | 1 | SUS304 |
| ⑦ JOINT FITTING ⁽³⁾ | 1 | SUS304 | ⑬ C-SHAPED STOP RING | 1 | SUS304 | ㉔ STUD BOLT/NUT ⁽⁴⁾ | 4 | SUS304 |
| | | | ⑭ O-RING (A) | 1 | EPDM | ㉕ COMPRESSOR | 1 | SUS304 |
| | | | ⑮ O-RING (B) | 1 | EPDM | ⑱ STUD NUT ⁽⁴⁾ | 4 | C3604 ⁽⁵⁾ , SUS304 ⁽⁶⁾ |
| | | | ⑯ THRUST RING (A) | 1 | UHMWPE | | | |

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 | SIZE | ROTATION |
|------------------|----------|------------------|----------|
| 15mm (1/2inch) | 3.3 | 50mm (2inch) | 6.0 |
| 20mm (3/4inch) | 3.3 | 65mm (2 1/2inch) | 9.0 |
| 25mm (1inch) | 4.0 | 80mm (3inch) | 10.0 |
| 32mm (1 1/4inch) | 4.0 | 100mm (4inch) | 10.0 |
| 40mm (1 1/2inch) | 5.0 | | |

COMPATIBLE ACTUATOR **AUTOMATIC**

| | | | | | |
|--|---------|---|--|--------|---|
| | TYPE AN | For detailed specifications, see P.117 | | TYPE H | For detailed specifications, see P.126 |
| | TYPE AV | For detailed specifications, see P.118 | | TYPE M | For detailed specifications, see P.127 |
| | TYPE AP | For detailed specifications, see P.122 | | | |

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

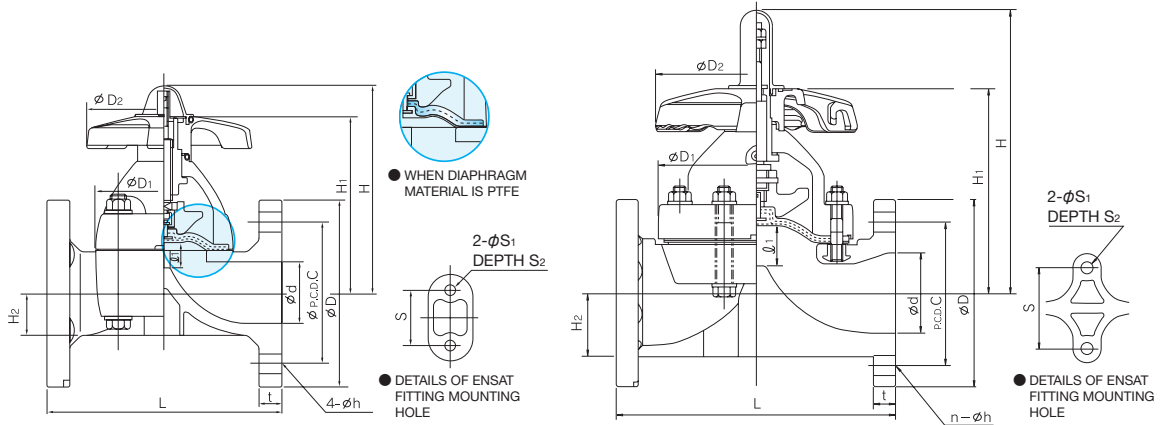
| ACTUATION | TYPE | ACTUATOR TYPE | ACTION / POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES | | |
|-----------|-----------------|---------------|-----------------------|--|--|--------------------------------------|------------------|-----------|-----------------------------|-----------------------|------------------|
| 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



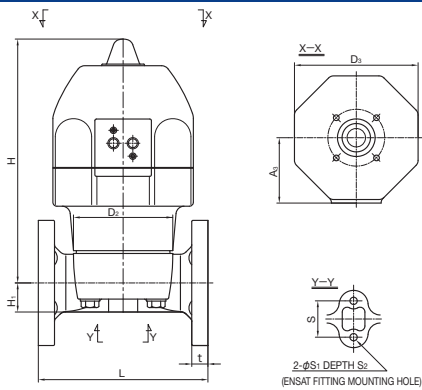
■ JIS, DIN (Unit: mm)

| mm | d | D1 | D2 | ℓ1 | H | H1 | H2 | S | S1 | S2 | JIS10K | | | | DIN PN10 | | | | | | | | | |
|-----|-----|---------|-----|----|-----|-----|------|-----|----|----|--------|-----|---|----|----------|----------------|------------|-----|-----|---|----|-----|----------------|------------|
| | | | | | | | | | | | D | C | n | h | L | U-PVC C-PVC | PP PVDF | D | C | n | h | L | U-PVC C-PVC | 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 |

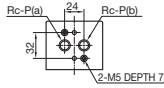
■ ANSI (Unit: inch)

| inch | mm | d | D1 | D2 | ℓ1 | H | H1 | H2 | S | S1 | S2 | ANSI CLASS150 | | | | | | | | | | | | | | |
|-------|-----|------|-----------|-------|------|-------|------|------|------|------|------|---------------|------|---|------|-------|-------|----------------|------------|----------------------|----------------|----------------|------------|--|--|--|
| | | | | | | | | | | | | D | C | n | h | L | | U-PVC C-PVC | PP PVDF | GRINNELL STANDARD | AV STANDARD | U-PVC C-PVC | 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 | | | | | | | |

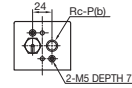
TYPE AN



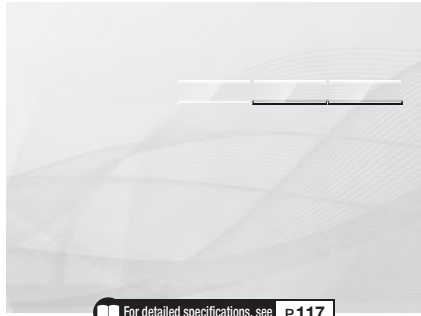
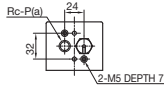
AIR PIPE OPENING (FOR DOUBLE ACTING)



AIR PIPE OPENING (FOR AIR TO OPEN)



AIR PIPE OPENING (FOR AIR TO CLOSE)



For detailed specifications, see P.117

JIS, DIN (Unit: mm)

| mm | D ₂ | D ₃ | H | H ₁ | A ₃ | S | S ₁ | S ₂ | P |
|----|----------------|----------------|-----|----------------|----------------|----|----------------|----------------|-----|
| 15 | 54×66 | 130 | 186 | 19.5 | 68 | 25 | 7 | 13 | 1/4 |
| 20 | 54×66 | 130 | 188 | 17.5 | 68 | 25 | 7 | 13 | 1/4 |
| 25 | 67×80 | 130 | 193 | 18.5 | 68 | 25 | 7 | 13 | 1/4 |
| 32 | 67×80 | 130 | 197 | 22.5 | 68 | 25 | 7 | 13 | 1/4 |
| 40 | 108×108 | 174 | 293 | 27.5 | 92 | 45 | 9 | 15 | 1/4 |
| 50 | 123×123 | 174 | 302 | 36 | 92 | 45 | 9 | 15 | 1/4 |

JIS10K

| L | t |
|-----|----|
| 110 | 12 |
| 120 | 13 |
| 130 | 13 |
| 142 | 16 |
| 180 | 16 |
| 210 | 20 |

DIN PN10

| L | t |
|-----|----|
| 130 | 12 |
| 150 | 13 |
| 160 | 13 |
| 180 | 16 |
| 200 | 20 |
| 230 | 22 |

ANSI (Unit: inch)

| inch | mm | D ₂ | D ₃ | H | H ₁ | A ₃ | S | S ₁ | S ₂ | P |
|-------|----|----------------|----------------|-------|----------------|----------------|------|----------------|----------------|-----|
| 1/2 | 15 | 2.13×2.60 | 5.12 | 7.32 | 0.77 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 |
| 3/4 | 20 | 2.13×2.60 | 5.12 | 7.40 | 0.69 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 |
| 1 | 25 | 2.64×3.15 | 5.12 | 7.60 | 0.73 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 |
| 1 1/4 | 32 | 2.64×3.15 | 5.12 | 7.76 | 0.89 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 |
| 1 1/2 | 40 | 4.25×4.25 | 6.85 | 11.54 | 1.08 | 3.62 | 1.77 | 0.35 | 0.59 | 1/4 |
| 2 | 50 | 4.84×4.84 | 6.85 | 11.89 | 1.42 | 3.62 | 1.77 | 0.35 | 0.59 | 1/4 |

ANSI CLASS150

| L | t | |
|------|------|------|
| 4.25 | 4.33 | 0.43 |
| 5.88 | 4.72 | 0.51 |
| 5.88 | 5.12 | 0.59 |
| 6.38 | - | 0.63 |
| 6.94 | 7.09 | 0.63 |
| 7.94 | 8.27 | 0.79 |

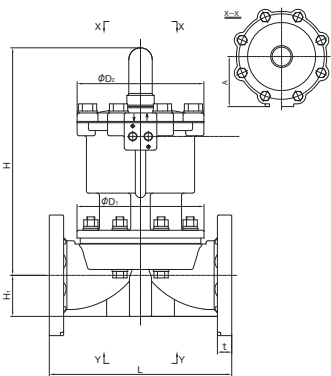
TYPE AV

DIAPHRAGM VALVE TYPE 14

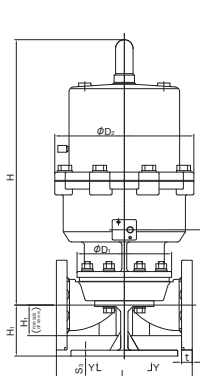
TYPE—A14AV

CONNECTION / FLANGED—JIS, DIN, ANSI

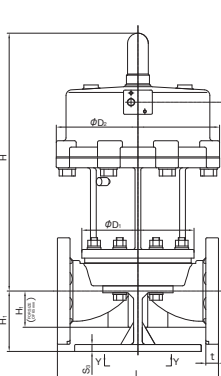
(DOUBLE ACTING)



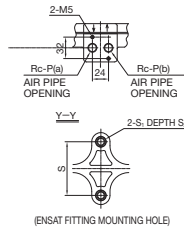
(AIR TO OPEN)



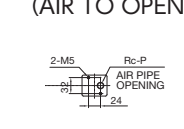
(AIR TO CLOSE)



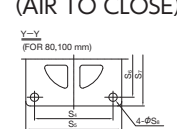
(DOUBLE ACTING)



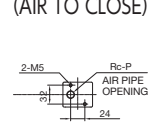
(AIR TO OPEN)



(AIR TO CLOSE)



(AIR TO CLOSE)



ACTUATOR SELECTION CHART

| SIZE | ACTUATOR TYPE | |
|------------------|---------------|--------|
| | 逆作動 | 工作動 |
| 65mm (2 1/2inch) | AV-1DA | AV-1AO |
| 80mm (3inch) | AV-2DA | AV-2AO |
| 100mm (4inch) | AV-3DA | AV-3AO |

For detailed specifications, see p.118

JIS, DIN (Unit: mm)

| mm | D ₁ | D ₂ | | A | | H | | H ₁ | | S | | S ₁ | | S ₂ | | S ₃ | | S ₄ | | S ₅ | | S ₆ | | S ₇ | | S ₈ | | P |
|-----|----------------|----------------|---------------------------|---------------|---------------|-------------|--------------|----------------|---------------------------|---------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|-----|
| | | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | DOUBLE ACTING | AIR TO OPEN | AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | |
| 65 | 171 | 208 | 280 | 103 | 323 | 473 | 423 | 61 | 61 | 85 | 85 | M8 | M8 | 15 | 15 | - | - | - | - | - | - | - | - | - | - | - | - | 1/4 |
| 80 | 195 | 208 | 305 | 103 | 354 | 550 | 455 | 63 | 109 | 100 | - | M12 | - | 22 | - | 12 | 180 | 220 | 175 | 215 | 19 | 1/4 | 240 | 22 | 23 | 310 | 22 | 22 |
| 100 | 235 | 250 | 385 | 120 | 417 | 601 | 582 | 78 | 119 | 120 | - | M12 | - | 22 | - | 15 | 230 | 270 | 220 | 260 | 19 | 1/4 | 280 | 22 | 24 | 350 | 24 | 26 |

JIS10K

| L | t | |
|-----|----|----|
| 250 | 22 | 23 |
| 280 | 22 | 23 |
| 340 | 22 | 24 |

DIN PN10

| L | t | |
|-----|----|----|
| 290 | 22 | 22 |
| 310 | 22 | 24 |
| 350 | 24 | 26 |

ANSI (Unit: inch)

| inch | mm | D ₁ | D ₂ | | A | | H | | H ₁ | | S | | S ₁ | | S ₂ | | S ₃ | | S ₄ | | S ₅ | | S ₆ | | S ₇ | | S ₈ | | P | | |
|-------|-----|----------------|----------------|---------------------------|---------------|---------------|-------------|--------------|----------------|---------------------------|---------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|---------------------------|-------|------|------|
| | | | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | DOUBLE ACTING | AIR TO OPEN | AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | DOUBLE ACTING | AIR TO OPEN, AIR TO CLOSE | | | |
| 2 1/2 | 65 | 6.73 | 8.19 | 11.02 | 4.06 | 12.72 | 18.62 | 16.65 | 2.40 | 2.40 | 3.35 | 3.35 | M8 | M8 | 0.59 | 0.59 | - | - | - | - | - | - | - | - | - | - | - | - | 1/4 | | |
| 3 | 80 | 7.68 | 8.19 | 12.01 | 4.06 | 13.94 | 21.65 | 17.91 | 2.48 | 4.29 | 3.94 | - | M12 | - | 0.87 | - | 0.47 | 7.09 | 8.66 | 6.89 | 8.46 | 0.75 | 1/4 | 10.37 | 11.02 | 0.87 | 0.91 | 10.37 | 11.02 | 0.87 | 0.91 |
| 4 | 100 | 9.25 | 9.84 | 15.16 | 4.72 | 16.42 | 23.66 | 22.91 | 3.07 | 4.69 | 4.72 | - | M12 | - | 0.87 | - | 0.59 | 9.06 | 10.63 | 8.66 | 10.24 | 0.75 | 1/4 | 12.93 | 13.39 | 0.87 | 0.91 | 12.93 | 13.39 | 0.87 | 0.91 |

ANSI CLASS150

| L | t | | |
|-------|-------|------|------|
| 9.84 | 0.87 | 0.91 | |
| 10.37 | 11.02 | 0.87 | 0.91 |
| 12.93 | 13.39 | 0.87 | 0.91 |

DIAPHRAGM VALVE TYPE14

- LIGHTWIGHT, COMPACT SIZE AND HIGH ANTI-CORROSION RESISTANCE DUE TO PLASTIC ACTUATOR MOUNTED.
- AIR PIPING IS COMPATIBLE WITH NAMUR STANDARD.
- OPTIONS ARE EASILY REMOVABLE/REPLACEABLE AND CAN BE MOUNTED LATER. (EXCEPT POSITIONER)
- EQUIPPED WITH STOPPER THAT CAN BE ADJUSTED AT FULL CLOSED POSITION.
- 0.6MPa OR 1.0MPa MODEL OF MAXIMUM WORKING PRESSURE AVAILABLE FOR FLUID PRESSURE CONDITION.

BASIC SPECIFICATIONS

VALVE TYPE ————— **DIAPHRAGM VALVE TYPE14 PNEUMATIC TYPE AP**

SIZE ————— **65mm—100mm (2 1/2 inch—4 inch)**

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

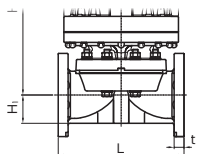
SEAL MATERIAL / DIAPHRAGM ————— **EPDM PTFE FKM etc.**

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

OPTION ————— **PVDF CUSHION COVER MODEL, ELECTROLYTIC MODEL, EL MODEL**

| | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm ²) | | CONNECTION METHOD |
|-------|-------------------|---|------------|-------------------|
| | | FOR 1.0MPa | FOR 0.6MPa | |
| U-PVC | 0°C~60°C | 1.0 {10.2} | 0.6 {6.1} | ○ |
| C-PVC | 0°C~90°C | 1.0 {10.2} | 0.6 {6.1} | ○ |
| PP | -20°C~90°C | 1.0 {10.2} | 0.6 {6.1} | ○ |
| PVDF | -40°C~120°C | 1.0 {10.2} | 0.6 {6.1} | ○ |

| ACTUATION | TYPE | ACTUATOR TYPE | ACTION POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE |
|----------------------|---------------|------------------------|---|--------------------------------------|---|--------------|--|-------------------------|
| A | 14 | P | * | * | * | F | * | *** |
| A AUTOMATIC VALVE | 14 TYPE 14 | P PNEUMATIC TYPE AP | F DOUBLE ACTING G AIR TO OPEN (0.6MPa) H AIR TO OPEN (1.0MPa) S AIR TO CLOSE | U U-PVC C C-PVC P PP F PVDF | E EPDM T PTFE V FKM F VIFLON®F(FKM-F) C VIFLON®C(FKM-C) | F FLANGED | 1 JIS10K D DIN A ANSI (GRINNEL STANDARD) J ANSI (AV STANDARD) | 065 65mm ? 100 100mm |



Rc-P(a) VALVE OPEN: (a)EXHAUST (b)SUPPLY
VALVE CLOSE: (a)SUPPLY (b)EXHAUST

Rc-P(b) VALVE OPEN: (b)SUPPLY
VALVE CLOSE: (b)EXHAUST

Rc-P(e) VALVE OPEN: (a)SUPPLY
VALVE CLOSE: (a)EXHAUST



| SIZE | ACTUATOR | | | |
|------------------|----------|-----------|-----------|--------|
| | | 0.6MPa | 1.0MPa | |
| 65mm (2 1/2inch) | AP-1DA | AP-1A0-06 | AP-1A0-10 | AP-1AS |
| 80mm (3inch) | AP-2DA | AP-2A0-06 | AP-2A0-10 | AP-2AS |
| 100mm (4inch) | AP-3DA | AP-3A0-06 | AP-3A0-10 | AP-3AS |

For detailed specifications, see **R122**

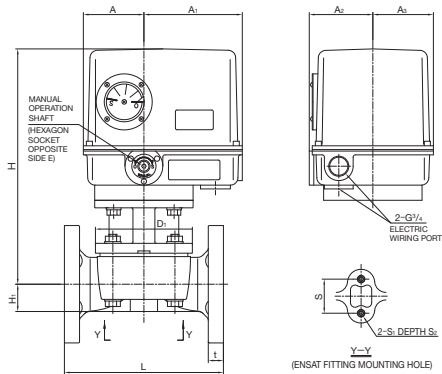
JIS, DIN (Unit: mm)

| mm | D ₁ | | D ₂ | | H | | H ₁ | S | S ₁ | S ₂ | P | JIS10K | | | DIN PN10 | | |
|-----|---|--------------------|---|--------------------|---|--------------------|----------------|-----|----------------|----------------|-----|--------|-----------|---------|----------|-----------|---------|
| | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | | | | | | L | PVC C-PVC | PP PVDF | L | PVC C-PVC | PP PVDF |
| 65 | 216 | 216 | 255 | 255 | 353 | 353 | 61 | 85 | M8 | 15 | 1/4 | 250 | 22 | 23 | 290 | 22 | 22 |
| 80 | 216 | 232 | 255 | 271 | 376 | 389 | 63 | 100 | M12 | 22 | 1/4 | 280 | 22 | 23 | 310 | 24 | 24 |
| 100 | 232 | 276 | 271 | 315 | 428 | 451 | 78 | 120 | M12 | 22 | 1/4 | 340 | 22 | 24 | 350 | 24 | 26 |

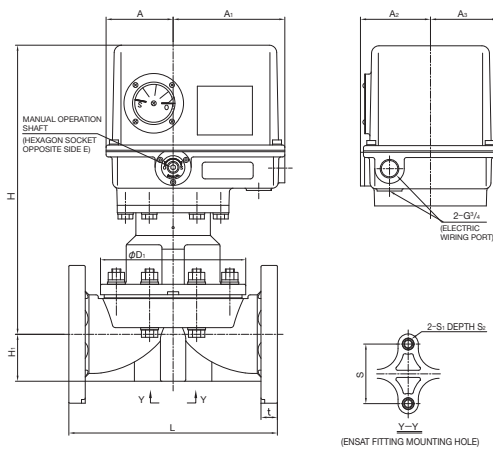
ANSI (Unit: inch)

| inch | mm | D ₁ | | D ₂ | | H | | H ₁ | S | S ₁ | S ₂ | P | ANSI CLASS150 | | | |
|-------|-----|---|--------------------|---|--------------------|---|--------------------|----------------|------|----------------|----------------|-----|---------------|------------------|-------------|-----------|
| | | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | DOUBLE ACTING AIR TO OPEN 0.6MPa AIR TO CLOSE | AIR TO OPEN 1.0MPa | | | | | | L | GRINNEL STANDARD | AV STANDARD | PVC C-PVC |
| 2 1/2 | 65 | 8.50 | 8.50 | 10.04 | 10.04 | 13.90 | 13.90 | 2.40 | 3.35 | M8 | 0.59 | 1/4 | - | 9.84 | 0.87 | 0.91 |
| 3 | 80 | 8.50 | 9.13 | 10.04 | 10.67 | 14.80 | 15.31 | 2.48 | 3.94 | M12 | 0.87 | 1/4 | 10.37 | 11.02 | 0.87 | 0.91 |
| 4 | 100 | 9.13 | 10.87 | 10.67 | 12.40 | 16.85 | 17.76 | 3.07 | 4.72 | M12 | 0.87 | 1/4 | 12.93 | 13.39 | 0.87 | 0.94 |

TYPE H Single-Phase 100V
Single-Phase 200V



TYPE H Single-Phase 100V
Single-Phase 200V



ACTUATOR SELECTION CHART

| SIZE | ACTUATOR TYPE |
|------------------|---------------|
| 65mm (2 1/2inch) | ED-21H |
| 80mm (3inch) | |
| 100mm (4inch) | |

For detailed specifications, see P.126

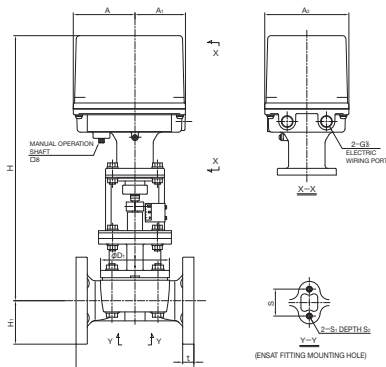
■ JIS, DIN (Unit: mm)

| mm | D $\frac{1}{2}$ | H | H $\frac{1}{2}$ | A | A $\frac{1}{2}$ | A $\frac{2}{2}$ | A $\frac{3}{2}$ | S | S $\frac{1}{2}$ | S $\frac{2}{2}$ | E | JIS10K | | | DIN PN10 | | |
|-----|-----------------|-----|-----------------|----|-----------------|-----------------|-----------------|-----|-----------------|-----------------|---|--------|-------------|---------|----------|-------------|---------|
| | | | | | | | | | | | | L | U-PVC C-PVC | PP PVDF | L | U-PVC C-PVC | PP PVDF |
| 65 | 175 | 371 | 61 | 90 | 150 | 94 | 90 | 85 | M8 | 15 | 5 | 250 | 22 | 23 | 290 | 22 | 22 |
| 80 | 199 | 388 | 63 | 90 | 150 | 94 | 90 | 100 | M12 | 22 | 5 | 280 | 22 | 23 | 310 | 24 | 24 |
| 100 | 239 | 418 | 78 | 90 | 150 | 94 | 90 | 120 | M12 | 22 | 5 | 340 | 22 | 24 | 350 | 24 | 26 |

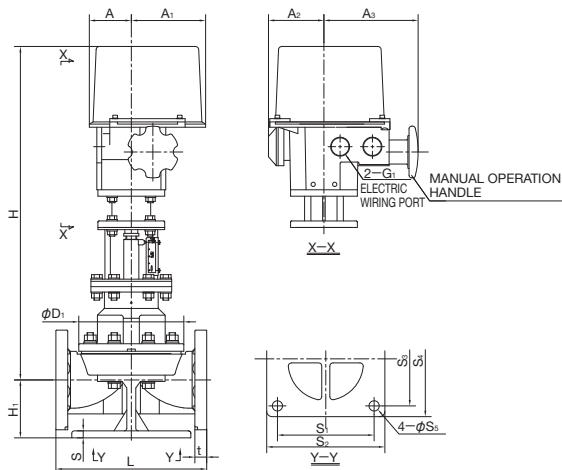
■ ANSI (Unit: inch)

| inch | mm | D $\frac{1}{2}$ | H | H $\frac{1}{2}$ | A | A $\frac{1}{2}$ | A $\frac{2}{2}$ | A $\frac{3}{2}$ | S | S $\frac{1}{2}$ | S $\frac{2}{2}$ | E | ANSI CLASS150 | | | |
|-------|-----|-----------------|-------|-----------------|------|-----------------|-----------------|-----------------|------|-----------------|-----------------|------|-------------------|-------------|-------------|---------|
| | | | | | | | | | | | | | GRINNELL STANDARD | AV STANDARD | U-PVC C-PVC | PP PVDF |
| 2 1/2 | 65 | 6.89 | 14.61 | 2.40 | 3.54 | 5.91 | 3.70 | 3.54 | 3.35 | M8 | 0.59 | 0.20 | - | 9.84 | 0.87 | 0.91 |
| 3 | 80 | 7.83 | 15.28 | 2.48 | 3.54 | 5.91 | 3.70 | 3.54 | 3.94 | M12 | 0.87 | 0.20 | 10.37 | 11.02 | 0.87 | 0.91 |
| 4 | 100 | 9.41 | 16.46 | 3.07 | 3.54 | 5.91 | 3.70 | 3.54 | 4.72 | M12 | 0.87 | 0.20 | 12.93 | 13.39 | 0.87 | 0.94 |

TYPE M Single-Phase 100V
Single-Phase 200V



TYPE M Single-Phase 100V
Single-Phase 200V



| ACTUATOR SELECTION CHART | |
|--------------------------|---------------|
| SIZE | ACTUATOR TYPE |
| 65mm (2 1/2inch) | CSP471 |
| 80mm (3inch) | CSP771 |
| 100mm (4inch) | |

For detailed specifications, see **P.127**

■ JIS, DIN (Unit: mm)

| mm | D ₁ | H | H ₁ | A | A ₁ | A ₂ | A ₃ | S | S ₁ | S ₂ | S ₃ | S ₄ | S ₅ | JIS10K | | | DIN PN10 | | |
|-----|----------------|-----|----------------|----|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|--------|-------------|-----------|----------|-------------|-----------|
| | | | | | | | | | | | | | | L | U-PVC C-PVC | t PP PVDF | L | U-PVC C-PVC | t PP PVDF |
| 65 | 175 | 608 | 98 | 79 | 137 | 103 | 177 | 12 | 155 | 190 | 160 | 190 | 19 | 250 | 22 | 23 | 290 | 22 | 22 |
| 80 | 199 | 625 | 109 | 79 | 137 | 103 | 177 | 12 | 180 | 220 | 175 | 215 | 19 | 280 | 22 | 23 | 310 | 24 | 24 |
| 100 | 239 | 655 | 119 | 79 | 137 | 103 | 177 | 15 | 230 | 270 | 220 | 260 | 19 | 340 | 22 | 24 | 350 | 24 | 26 |

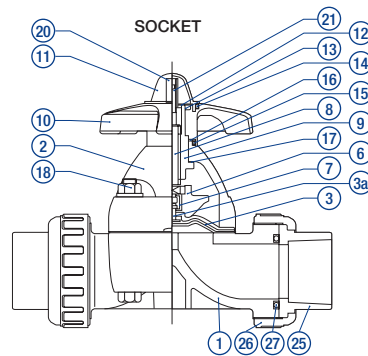
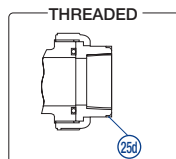
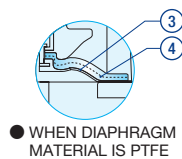
■ ANSI (Unit: inch)

| 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 | ANSI CLASS150 | | | |
|-------|-----|----------------|-------|----------------|------|----------------|----------------|----------------|------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|-------------|-------------|
| | | | | | | | | | | | | | | | L | GRINNELL STANDARD | AV STANDARD | U-PVC C-PVC |
| 2 1/2 | 65 | 6.89 | 23.94 | 3.86 | 3.11 | 5.39 | 4.06 | 6.97 | 0.47 | 6.10 | 7.48 | 6.30 | 7.48 | 0.75 | - | 9.84 | 0.87 | 0.91 |
| 3 | 80 | 7.83 | 24.61 | 4.29 | 3.11 | 5.39 | 4.06 | 6.97 | 0.47 | 7.09 | 8.66 | 6.89 | 8.46 | 0.75 | 10.37 | 11.02 | 0.87 | 0.91 |
| 4 | 100 | 9.41 | 25.79 | 4.69 | 3.11 | 5.39 | 4.06 | 6.97 | 0.59 | 9.06 | 10.63 | 6.66 | 10.24 | 0.75 | 12.93 | 13.39 | 0.87 | 0.94 |

TRUE UNION DIAPHRAGM VALVE TYPE 14



PARTS LIST MANUAL



| PART NO. / NAME | QTY | MATERIAL | PART NO. / NAME | QTY | MATERIAL | PART NO. / NAME | QTY | MATERIAL |
|-------------------------------|-----|---|--------------------------|-----|----------|-----------------------|-----|------------|
| ① BODY | 1 | BODY END CONNECTOR — BONNET UNION NUT | ④ CUSHION ⁽²⁾ | 1 | EPDM | ⑭ O-RING (A) | 1 | EPDM |
| ② BONNET | 1 | U-PVC — U-PVC C-PVC — PP | ⑥ COMPRESSOR | 1 | PVDF | ⑮ O-RING (B) | 1 | EPDM |
| ②⑤ END CONNECTOR | 2 | PP — PP PVDF — PPG ⁽¹⁾ PVDF — PVDF | ⑦ JOINT FITTING | 1 | SUS304 | ⑯ THRUST RING (A) | 1 | UHMWPE |
| ②⑥ UNION NUT | 2 | | ⑧ STEM | 1 | C3604 | ⑰ THRUST RING (B) | 1 | UHMWPE |
| ③ DIAPHRAGM | 1 | EPDM, PTFE, etc. | ⑨ SLEEVE | 1 | C3604 | ⑱ BOLT/NUT (A) | 4 | SUS304 |
| ③⑩ EMBEDDED DIAPHRAGM FITTING | 1 | SUS304 | ⑩ HANDLE | 1 | PP | ⑳ STOPPER | 1 | C3604 |
| | | | ⑪ GAUGE COVER | 1 | PC | ㉑ SCREW | 1 | SUS304 |
| | | | ⑫ NAMEPLATE | 1 | U-PVC | ㉒ RING ⁽³⁾ | 2 | SUS304 |
| | | | ⑬ C-SHAPED STOP RING | 1 | SUS304 | ㉓ O-RING (C) | 2 | EPDM, etc. |

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 threaded end connector is made of C-PVC and the size is 15 to 25 mm.

COMPATIBLE ACTUATOR AUTOMATIC



TYPE AN

For detailed specifications, see **P.117**



TYPE H

For detailed specifications, see **P.126**



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 | T1 | MH | * | * | * | * | *** | 1 | | | |
| ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | | | |
| V | MANUAL VALVE | T1 | TRUE UNION | MH | ROUND HANDLE | U U-PVC C C-PVC P PP F PVDF G PVDF+PPG | E EPDM 1 PTFE+EPDM 2 PTFE+FKM | S SOCKET N THREADED P SPIGOT | J JIS D DIN A ANSI | 015 15mm 050 50mm | 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 | T1 | * | * | * | * | * | * | *** | 1 | | |
| ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | | |
| A | AUTOMATIC VALVE | T1 | TRUE UNION | PNEUMATIC N TYPE AN ELECTRIC H TYPE H M TYPE M | PNEUMATIC F DOUBLE ACTING G AIR TO OPEN 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 1 PTFE+EPDM 2 PTFE+FKM | S SOCKET N THREADED P SPIGOT | J JIS D DIN A ANSI | 015 15mm 050 50mm | 1 LUBRICANT FREE |

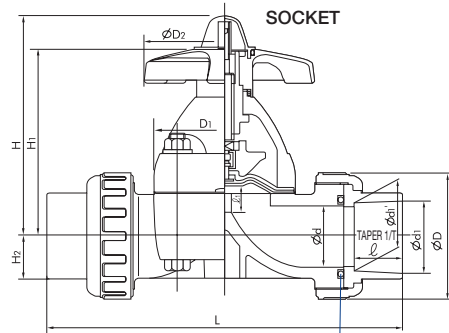
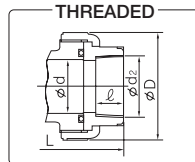
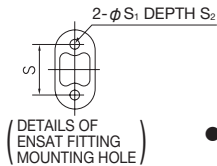
NOTE (1) PP and PVDF sockets are weld type. Note, however, that JIS PP 32-mm socket type is not produced. (2) U-PVC and C-PVC sockets are of JIS type only. PVDF sockets are of DIN type only.

MANUAL

TRUE UNION DIAPHRAGM VALVE TYPE 14

TYPE—VT1MH

CONNECTION / SOCKET—JIS, DIN, ANSI THREADED—Rc, Rp, NPT



■ JIS, DIN (Unit: mm)

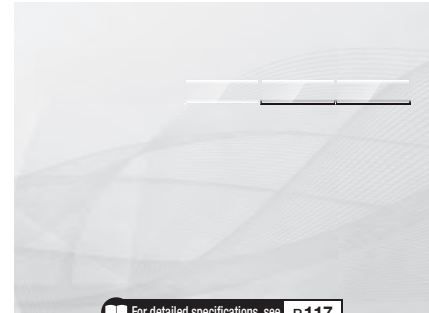
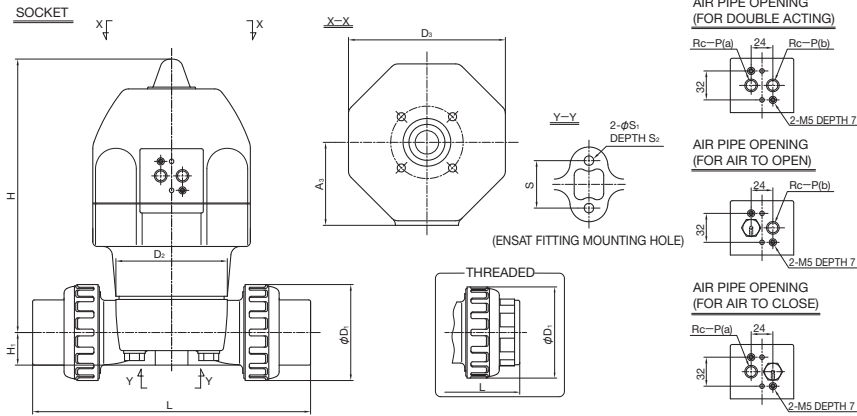
| mm | d | D | D ₁ | D ₂ | ℓ ₁ | H | H ₁ | H ₂ | S | S ₁ | S ₂ | JIS | | | | | | | | | | | |
|----|----|-----|----------------|----------------|----------------|-----|----------------|----------------|----|----------------|----------------|----------------|----|------|----------------|------|----------|----------------|-----|---------|----------------|-----|-----|
| | | | | | | | | | | | | SOCKET | | | | | THREADED | | | | | | |
| | | | | | | | | | | | | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₂ | ℓ | L |
| 15 | 16 | 48 | 54×66 | 100 | 10 | 104 | 86 | 19.5 | 25 | 7 | 13 | 22.11 | 20 | 1/34 | 134 | 21.2 | 20.2 | 20 | 134 | Rc1/2 | 15 | 128 | 128 |
| 20 | 20 | 60 | 54×66 | 100 | 10 | 106 | 88 | 17.5 | 25 | 7 | 13 | 26.13 | 24 | 1/34 | 156 | 26.2 | 25.2 | 23 | 154 | Rc3/4 | 17 | 148 | 148 |
| 25 | 25 | 70 | 67×80 | 100 | 12 | 111 | 93 | 18.5 | 25 | 7 | 13 | 32.16 | 27 | 1/34 | 186 | 33.0 | 32.0 | 25 | 182 | Rc1 | 20 | 172 | 172 |
| 32 | 32 | 82 | 67×80 | 100 | 12 | 116 | 97 | 22.5 | 25 | 7 | 13 | 38.19 | 30 | 1/34 | 200 | - | - | - | - | Rc1 1/4 | 22 | 188 | 188 |
| 40 | 40 | 100 | 108×108 | 156 | 21 | 177 | 144 | 27.5 | 45 | 9 | 15 | 48.21 | 37 | 1/37 | 271 | 47.0 | 46.0 | 28 | 253 | Rc1 1/2 | 25 | 245 | 245 |
| 50 | 52 | 106 | 123×123 | 156 | 25 | 191 | 158 | 36 | 45 | 9 | 15 | 60.25 | 42 | 1/37 | 303 | 59.0 | 58.0 | 28 | 275 | Rc2 | 28 | 281 | 278 |

| mm | DIN | | | | | | | | | | SPIGOT | | | | | | | | | | | | |
|----|----------------|----|-----|----------------|------|----------|----------------|---------|----|----------------|-------------|----|----------------|-----|----|----------------|-----|-----|----------------|---|---|---|--|
| | SOCKET | | | | | THREADED | | | | | U-PVC C-PVC | | | | | PP PVDF | | | | | | | |
| | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | t | |
| 15 | 20 | 16 | 128 | 19.5 | 19.3 | 14.5 | 125 | Rc1/2 | 15 | 128 | 128 | 20 | 18.5 | 150 | 20 | 18.5 | 150 | 2.5 | 1.9 | | | | |
| 20 | 25 | 19 | 147 | 24.5 | 24.3 | 16 | 141 | Rc3/4 | 17 | 148 | 148 | 25 | 24 | 172 | 25 | 22 | 172 | 2.7 | 1.9 | | | | |
| 25 | 32 | 22 | 172 | 31.5 | 31.3 | 18 | 164 | Rc1 | 20 | 172 | 172 | 32 | 24.5 | 195 | 32 | 22.5 | 195 | 3.0 | 2.4 | | | | |
| 32 | 40 | 26 | 188 | 39.45 | 39.2 | 20.5 | 177 | Rc1 1/4 | 22 | 188 | 188 | 40 | 28 | 212 | 40 | 26 | 212 | 3.7 | 2.4 | | | | |
| 40 | 50 | 31 | 246 | 49.45 | 49.2 | 23.5 | 231 | Rc1 1/2 | 25 | 245 | 245 | 50 | 34 | 276 | 50 | 32 | 276 | 4.6 | 3.0 | | | | |
| 50 | 63 | 38 | 294 | 62.5 | 62.1 | 27.5 | 274 | Rc2 | 28 | 281 | 278 | 63 | 38.5 | 308 | 63 | 36.0 | 307 | 5.8 | 3.0 | | | | |

■ ANSI (Unit: inch)

| inch | mm | d | D | D ₁ | D ₂ | C | H | H ₁ | H ₂ | S | S ₁ | S ₂ | ANSI | | | | | | | | | | |
|-------|----|------|------|----------------|----------------|------|------|----------------|----------------|------|----------------|----------------|----------------|----------------|-------|-------|----------------|----------|-------|-----------------|------|-------|----------------|
| | | | | | | | | | | | | | SOCKET | | | | | THREADED | | | | | |
| | | | | | | | | | | | | | d ₁ | d ₂ | ℓ | L | d ₁ | ℓ | L | d ₁ | ℓ | L | d ₁ |
| 1/2 | 15 | 0.63 | 1.89 | 2.13×2.60 | 3.94 | 0.39 | 4.09 | 3.39 | 0.77 | 0.98 | 0.28 | 0.51 | 0.848 | 0.836 | 0.875 | 5.47 | 0.83 | 0.87 | 5.43 | 1/2-14NPT | 0.59 | 5.04 | 5.04 |
| 3/4 | 20 | 0.79 | 2.36 | 2.13×2.60 | 3.94 | 0.39 | 4.17 | 3.46 | 0.69 | 0.98 | 0.28 | 0.51 | 1.058 | 1.046 | 1.000 | 6.18 | 1.03 | 1.00 | 6.09 | 3/4-14NPT | 0.67 | 5.83 | 5.83 |
| 1 | 25 | 0.98 | 2.76 | 2.64×3.15 | 3.94 | 0.47 | 4.37 | 3.66 | 0.79 | 0.98 | 0.28 | 0.51 | 1.325 | 1.310 | 1.125 | 7.32 | 1.30 | 1.13 | 7.24 | 1-11 1/2NPT | 0.79 | 6.77 | 6.77 |
| 1 1/4 | 32 | 1.26 | 3.23 | 2.64×3.15 | 3.94 | 0.47 | 4.57 | 3.82 | 0.89 | 0.98 | 0.28 | 0.51 | 1.670 | 1.655 | 1.250 | 7.95 | 1.65 | 1.25 | 7.80 | 1 1/4-11 1/2NPT | 0.87 | 7.40 | 7.40 |
| 1 1/2 | 40 | 1.57 | 3.94 | 4.25×4.25 | 6.14 | 0.83 | 6.97 | 5.67 | 1.08 | 1.77 | 0.35 | 0.59 | 1.912 | 1.894 | 1.375 | 10.47 | 1.89 | 1.37 | 10.28 | 1 1/2-11 1/2NPT | 0.98 | 9.65 | 9.65 |
| 2 | 50 | 2.05 | 4.17 | 4.84×4.84 | 6.14 | 0.98 | 7.52 | 6.22 | 1.42 | 1.77 | 0.35 | 0.59 | 2.387 | 2.369 | 1.500 | 11.54 | 2.36 | 1.50 | 11.54 | 2-11 1/2NPT | 1.10 | 11.06 | 10.95 |

TYPE AN



For detailed specifications, see P.117

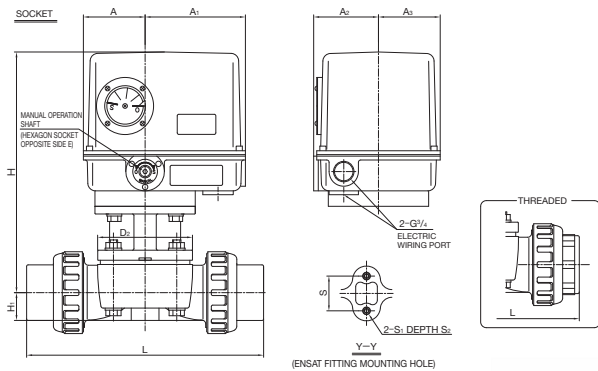
■ JIS, DIN (Unit: mm)

| mm | D ₁ | D ₂ | D ₃ | H | H ₁ | A ₃ | S | S ₁ | S ₂ | P | JIS | | | | DIN | | | | | | | |
|----|----------------|----------------|----------------|-----|----------------|----------------|----|----------------|----------------|-----|--------|-----|----------|-----|--------|-----|----------|-----|--------|-----|-----|-----|
| | | | | | | | | | | | SOCKET | | THREADED | | SOCKET | | THREADED | | SPIGOT | | | |
| | | | | | | | | | | | L | PP | L | PP | L | PP | L | PP | L | PP | L | PP |
| 15 | 48 | 54x66 | 130 | 186 | 19.5 | 68 | 25 | 7 | 13 | 1/4 | 134 | 134 | 128 | 128 | 128 | 125 | 128 | 128 | 150 | 150 | 2.5 | 1.9 |
| 20 | 60 | 54x66 | 130 | 188 | 17.5 | 68 | 25 | 7 | 13 | 1/4 | 156 | 154 | 148 | 148 | 147 | 141 | 148 | 148 | 172 | 172 | 2.7 | 1.9 |
| 25 | 70 | 67x80 | 130 | 193 | 18.5 | 68 | 25 | 7 | 13 | 1/4 | 186 | 182 | 172 | 172 | 172 | 164 | 172 | 172 | 195 | 195 | 3.0 | 2.4 |
| 32 | 82 | 67x80 | 130 | 197 | 22.5 | 68 | 25 | 7 | 13 | 1/4 | 200 | - | 188 | 188 | 188 | 177 | 188 | 188 | 212 | 212 | 3.7 | 2.4 |
| 40 | 100 | 108x108 | 174 | 293 | 27.5 | 92 | 45 | 9 | 15 | 1/4 | 271 | 253 | 245 | 245 | 246 | 231 | 245 | 245 | 276 | 276 | 4.6 | 3.0 |
| 50 | 106 | 123x123 | 174 | 302 | 36 | 92 | 45 | 9 | 15 | 1/4 | 303 | 275 | 281 | 278 | 294 | 274 | 281 | 278 | 308 | 307 | 5.8 | 3.0 |

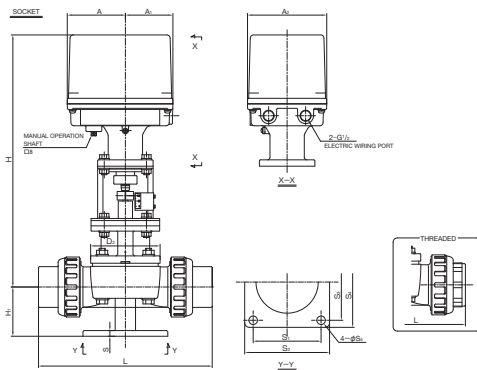
■ ANSI (Unit: inch)

| inch | mm | D ₁ | D ₂ | D ₃ | H | H ₁ | A ₃ | S | S ₁ | S ₂ | P | ANSI | | | |
|-------|----|----------------|----------------|----------------|-------|----------------|----------------|------|----------------|----------------|-----|--------|-------|----------|-------|
| | | | | | | | | | | | | SOCKET | | THREADED | |
| | | | | | | | | | | | | L | PP | L | PP |
| 1/2 | 15 | 1.89 | 2.13x2.60 | 5.12 | 7.32 | 0.77 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 | 5.47 | 5.43 | 5.04 | 5.04 |
| 3/4 | 20 | 2.36 | 2.13x2.60 | 5.12 | 7.40 | 0.69 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 | 6.18 | 6.09 | 5.83 | 5.83 |
| 1 | 25 | 2.76 | 2.64x3.15 | 5.12 | 7.60 | 0.73 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 | 7.32 | 7.24 | 6.77 | 6.77 |
| 1 1/4 | 32 | 3.23 | 2.64x3.15 | 5.12 | 7.76 | 0.89 | 2.68 | 0.98 | 0.28 | 0.51 | 1/4 | 7.95 | 7.80 | 7.40 | 7.40 |
| 1 1/2 | 40 | 3.94 | 4.25x4.25 | 6.85 | 11.54 | 1.08 | 3.62 | 1.77 | 0.35 | 0.59 | 1/4 | 10.47 | 10.28 | 9.65 | 9.65 |
| 2 | 50 | 4.17 | 4.84x4.84 | 6.85 | 11.89 | 1.42 | 3.62 | 1.77 | 0.35 | 0.59 | 1/4 | 11.54 | 11.54 | 11.06 | 10.95 |

TYPE H Single-Phase 100V
Single-Phase 200V



TYPE M Single-Phase 100V
Single-Phase 200V



ACTUATOR SELECTION CHART

| SIZE | ACTUATOR TYPE |
|------------------|---------------|
| 15mm (1/2inch) | PSN1 |
| 20mm (3/4inch) | |
| 25mm (1inch) | |
| 32mm (1 1/4inch) | |
| 40mm (1 1/2inch) | PSN3 |
| 50mm (2inch) | |

For detailed specifications, see **P.127**

■ JIS, DIN (Unit: mm)

| mm | D2 | H | H1 | A | A1 | A2 | S | S1 | S2 | S3 | S4 | S5 | JIS | | | |
|----|---------|-----|----|-----|----|-----|----|-----|-----|-----|-----|----|--------|-----|----------|-----|
| | | | | | | | | | | | | | SOCKET | | THREADED | |
| | | | | | | | | | | | | | L | PP | L | PP |
| 15 | 54×66 | 406 | 57 | 101 | 81 | 140 | 8 | 50 | 70 | 60 | 80 | 12 | 134 | 134 | 128 | 128 |
| 20 | 54×66 | 408 | 62 | 101 | 81 | 140 | 8 | 60 | 80 | 65 | 85 | 12 | 156 | 154 | 148 | 148 |
| 25 | 67×80 | 413 | 75 | 101 | 81 | 140 | 8 | 65 | 90 | 70 | 95 | 15 | 186 | 182 | 172 | 172 |
| 32 | 67×80 | 416 | 79 | 101 | 81 | 140 | 10 | 90 | 115 | 110 | 135 | 15 | 200 | - | 188 | 188 |
| 40 | 110×110 | 464 | 79 | 110 | 90 | 150 | 10 | 90 | 115 | 110 | 135 | 15 | 271 | 253 | 245 | 245 |
| 50 | 123×123 | 473 | 87 | 110 | 90 | 150 | 10 | 120 | 150 | 135 | 160 | 15 | 303 | 275 | 281 | 278 |

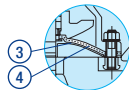
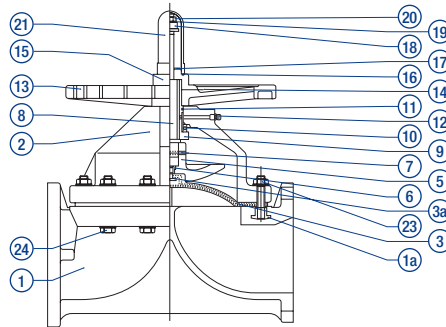
■ ANSI (Unit: inch)

| inch | mm | D2 | H | H1 | A | A1 | A2 | S | S1 | S2 | S3 | S4 | S5 | ANSI | | | |
|-------|----|-----------|-------|------|------|------|------|------|------|------|------|------|------|--------|-------|----------|-------|
| | | | | | | | | | | | | | | SOCKET | | THREADED | |
| | | | | | | | | | | | | | | L | PP | L | PP |
| 1/2 | 15 | 2.13×2.60 | 15.98 | 2.24 | 3.98 | 3.19 | 5.51 | 0.31 | 1.97 | 2.76 | 2.36 | 3.15 | 0.47 | 5.47 | 5.43 | 5.04 | 5.04 |
| 3/4 | 20 | 2.13×2.60 | 16.06 | 2.44 | 3.98 | 3.19 | 5.51 | 0.31 | 2.36 | 3.15 | 2.56 | 3.35 | 0.47 | 6.18 | 6.09 | 5.83 | 5.83 |
| 1 | 25 | 2.64×3.15 | 16.26 | 2.95 | 3.98 | 3.19 | 5.51 | 0.31 | 2.56 | 3.54 | 2.76 | 3.74 | 0.59 | 7.32 | 7.24 | 6.77 | 6.77 |
| 1 1/4 | 32 | 2.64×3.15 | 16.38 | 3.11 | 3.98 | 3.19 | 5.51 | 0.39 | 3.54 | 4.53 | 4.33 | 5.31 | 0.59 | 7.95 | 7.80 | 7.40 | 7.40 |
| 1 1/2 | 40 | 4.25×4.25 | 18.27 | 3.11 | 4.33 | 3.54 | 5.91 | 0.39 | 3.54 | 4.53 | 4.33 | 5.31 | 0.59 | 10.47 | 10.28 | 9.65 | 9.65 |
| 2 | 50 | 4.84×4.84 | 18.62 | 3.43 | 4.33 | 3.54 | 5.91 | 0.39 | 4.72 | 5.91 | 5.31 | 6.30 | 0.59 | 11.54 | 11.54 | 11.06 | 10.95 |

DIAPHRAGM VALVE TYPE 15



PARTS LIST MANUAL






WHEN DIAPHRAGM MATERIAL IS PTFE

| 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 | ⑦ COMPRESSOR PIN | 1 | SUS304 | ⑰ VALVE SEAT | 1 | SUS304 |
| ② BONNET | 1 | PVDF — PPG ⁽¹⁾ PVDF — PVDF | ⑧ STEM | 1 | C3604 | ⑱ STOPPER | 1 | SS400 (Unichrome plating) |
| ③ DIAPHRAGM | 1 | EPDM, PTFE, etc. | ⑨ SLEEVE (A) | 1 | C3604 | ⑲ SPRING WASHER | 1 | SUS304 |
| ③a EMBEDDED DIAPHRAGM FITTING | 1 | SUS304 | ⑩ THRUST BEARING (A) | 1 | SUJ2 | ⑳ SET NUT | 1 | SUS304 |
| ④ CUSHION ⁽²⁾ | 1 | EPDM, etc. | ⑪ O-RING (A) | 1 | NBR | ㉑ GAUGE COVER | 1 | PC |
| ⑤ COMPRESSOR | 1 | PVDF | ⑫ GREASE NIPPLE | 1 | C3604 | ㉒ BOLT/NUT | 4 | SUS304 |
| ⑥ COMPRESSOR NUT | 1 | C3604 | ⑬ HANDLE | 1 | PP | ㉓ BOLT/NUT | — | SUS304 |
| | | | ⑭ NAMEPLATE | 1 | U-PVC | ⑲a STUD NUT | 4 | C3604 ⁽³⁾ , SUS304 ⁽⁴⁾ |
| | | | ⑮ CAP | 1 | PP | | | |
| | | | ⑯ GASKET (A) | 1 | EPDM | | | |

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 U-PVC or PP. (4) is used when the body material is PVDF.

COMPATIBLE ACTUATOR AUTOMATIC

| | | |
|--|--|--|
|  <p>PNEUMATIC TYPE AV</p> <p>For detailed specifications, see P.118</p> |  <p>TYPE H</p> <p>For detailed specifications, see P.126</p> |  <p>TYPE S</p> <p>For detailed specifications, see P.131</p> |
|--|--|--|

PRODUCT MODEL
CODE LIST
MANUAL

| ACTUATION | TYPE | OPERATING SYSTEM | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES |
|-------------------|---------------|--------------------|---|------------------|--------------|-------------------------------------|------------------------|--------------------|
| V | 15 | MH | * | * | F | * | *** | 1 |
| V MANUAL VALVE | 15 TYPE 15 | MH ROUND HANDLE | U U-PVC P PP F PVDF G PVDF+PPG | E EPDM T PTFE | F FLANGED | 1 JIS10K 5 5K D DIN A ANSI | 125 125mm 150 150mm | 1 LUBRICANT FREE |

PRODUCT MODEL
CODE LIST
AUTOMATIC

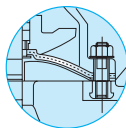
| ACTUATION | TYPE | ACTUATOR TYPE | ACTION / POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES |
|----------------------|---------------|--|---|---------------------------|------------------|--------------|--|------------------------|--------------------|
| A | 15 | * | * | * | * | F | * | *** | 1 |
| A AUTOMATIC VALVE | 15 TYPE 15 | PNEUMATIC V TYPE AV ELECTRIC H TYPE H S TYPE S | PNEUMATIC F DOUBLE ACTING G AIR TO OPEN S AIR TO CLOSE ELECTRIC 1 Single-Phase 100V 2 Single-Phase 200V 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 | 125 125mm 150 150mm | 1 LUBRICANT FREE |

MANUAL

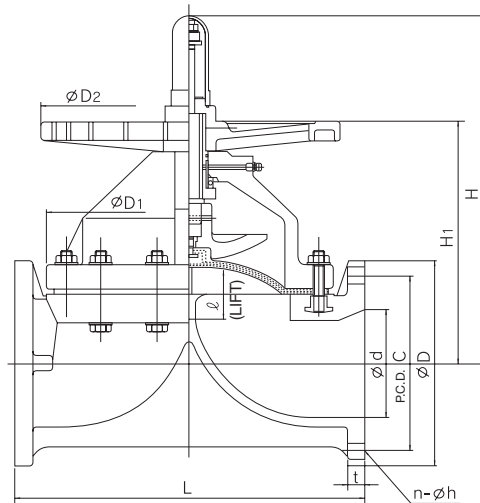
DIAPHRAGM VALVE TYPE 15

TYPE—V15MH

CONNECTION / FLANGED—JIS, DIN, ANSI



WHEN DIAPHRAGM
MATERIAL IS PTFE



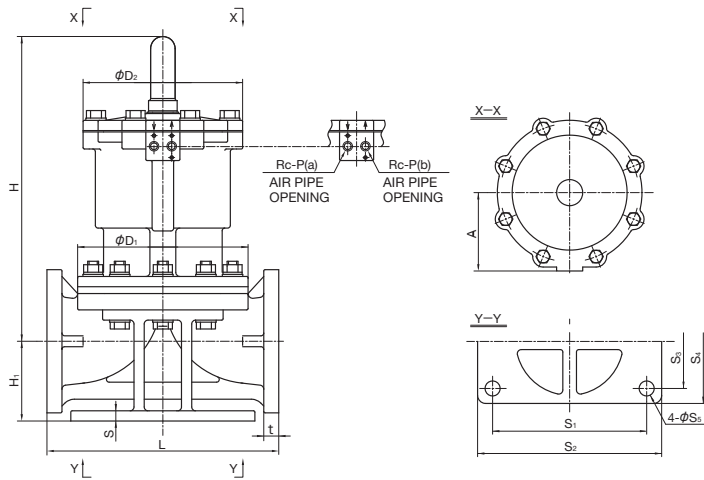
■ JIS, DIN (Unit: mm)

| mm | d | D ₁ | D ₂ | ℓ | H | H ₁ | JIS | | | | | | DIN PN10 | | | | | | | | | | | |
|-----|-----|----------------|----------------|----|-----|----------------|-------|-----|---|--------|-----|-----|----------|----|-----|----------|------------|-----|-----|---|----|-----|-------|------------|
| | | | | | | | JIS5K | | | JIS10K | | | L | t | | DIN PN10 | | | L | t | | | | |
| | | | | | | | D | C | n | h | D | C | | n | h | U-PVC | PP PVDF | D | | C | n | h | U-PVC | PP PVDF |
| 125 | 125 | 320 | 300 | 60 | 420 | 308 | 235 | 200 | 8 | 19 | 250 | 210 | 8 | 23 | 410 | 22 | 24 | 250 | 210 | 8 | 18 | 400 | 22 | 23 |
| 150 | 148 | 385 | 410 | 70 | 476 | 334 | 265 | 230 | 8 | 19 | 280 | 240 | 8 | 23 | 480 | 24 | 27 | 285 | 240 | 8 | 22 | 480 | 24 | 27 |

■ ANSI (Unit: inch)

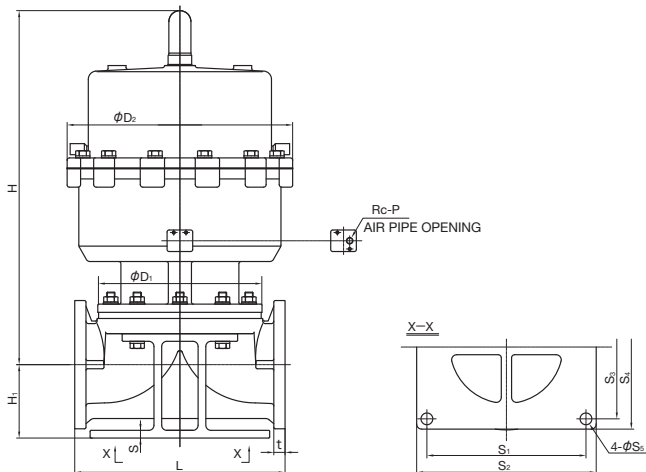
| inch | mm | d | D ₁ | D ₂ | ℓ | H | H ₁ | ANSI | | | | | | | |
|------|-----|------|----------------|----------------|------|-------|----------------|---------------|------|---|------|-------|-------|------------|--|
| | | | | | | | | ANSI CLASS150 | | | | | t | | |
| | | | | | | | | D | C | n | h | L | U-PVC | PP PVDF | |
| 5 | 125 | 4.92 | 12.60 | 11.81 | 2.36 | 16.54 | 12.13 | 10.00 | 8.50 | 8 | 0.88 | 16.14 | 0.87 | 0.94 | |
| 6 | 150 | 5.83 | 15.16 | 16.14 | 2.76 | 18.74 | 13.15 | 11.00 | 9.50 | 8 | 0.88 | 18.90 | 0.94 | 1.06 | |

TYPE AV



TYPE AV

CONNECTION / FLANGED—JIS, DIN, ANSI



ACTUATOR SELECTION CHART

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

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

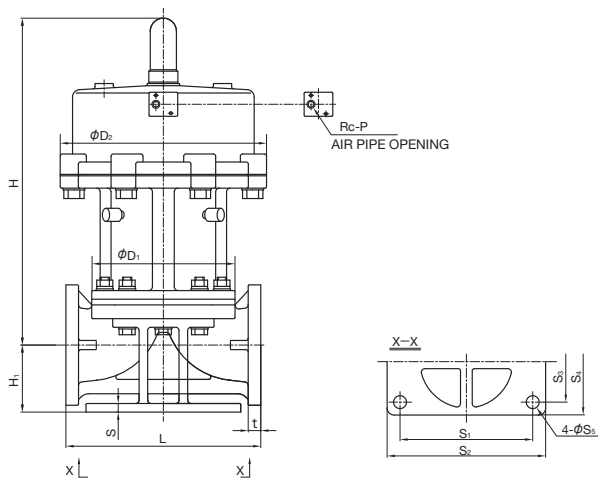
JIS, DIN (Unit: mm)

| mm | D ₁ | D ₂ | H | H ₁ | S | S ₁ | S ₂ | S ₃ | S ₄ | S ₅ | P | JIS5K, JIS10K | | | DIN PN10 | | |
|-----|----------------|----------------|-----|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|---------------|-------|-----------------|----------|-------|-----------------|
| | | | | | | | | | | | | L | U-PVC | t PP PVDF | L | U-PVC | t PP PVDF |
| 125 | 320 | 455 | 690 | 143 | 15 | 310 | 350 | 280 | 320 | 23 | 1/4 | 410 | 22 | 24 | 400 | 22 | 23 |
| 150 | 385 | 520 | 790 | 148 | 16 | 360 | 400 | 310 | 350 | 23 | 1/4 | 480 | 24 | 27 | 480 | 24 | 27 |

ANSI (Unit: inch)

| inch | mm | D ₁ | D ₂ | H | H ₁ | H ₂ | S ₁ | S ₂ | S ₃ | S ₄ | S ₅ | P | ANSI CLASS150 | | |
|------|-----|----------------|----------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|---------------|-------|-----------------|
| | | | | | | | | | | | | | L | U-PVC | t PP PVDF |
| 5 | 125 | 12.60 | 17.91 | 20.00 | 5.28 | 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 | 22.28 | 5.71 | 0.63 | 14.17 | 15.75 | 12.20 | 13.78 | 0.91 | 1/4 | 18.90 | 0.94 | 1.06 |

TYPE AV



ACTUATOR SELECTION CHART

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

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

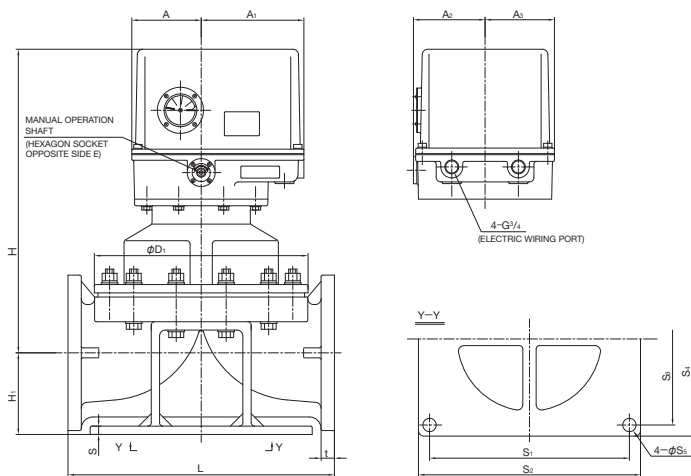
■ JIS, DIN (Unit: mm)

| mm | D ₁ | D ₂ | H | H ₁ | S | S ₁ | S ₂ | S ₃ | S ₄ | S ₅ | P | JIS5K, JIS10K | | | DIN PN10 | | |
|-----|----------------|----------------|-----|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|---------------|-------------|------------------|----------|-------------|------------------|
| | | | | | | | | | | | | L | t | | L | t | |
| 125 | 320 | 455 | 653 | 143 | 15 | 310 | 350 | 280 | 320 | 23 | 1/4 | 410 | U-PVC 22 | PP PVDF 24 | 400 | U-PVC 22 | PP PVDF 23 |
| 150 | 385 | 520 | 722 | 148 | 16 | 360 | 400 | 310 | 350 | 23 | 1/4 | 480 | U-PVC 24 | PP PVDF 27 | 480 | U-PVC 24 | PP PVDF 27 |

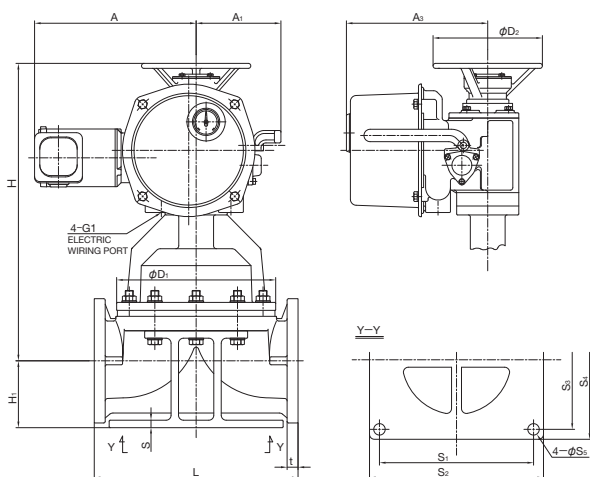
■ ANSI (Unit: inch)

| inch | mm | D ₁ | D ₂ | H | H ₁ | S | S ₁ | S ₂ | S ₃ | S ₄ | S ₅ | P | ANSI CLASS150 | | |
|------|-----|----------------|----------------|-------|----------------|------|----------------|----------------|----------------|----------------|----------------|-----|---------------|---------------|--------------------|
| | | | | | | | | | | | | | L | t | |
| 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 | U-PVC 0.87 | PP PVDF 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 | U-PVC 0.94 | PP PVDF 1.06 |

TYPE H Single-Phase 100V
Single-Phase 200V



TYPE S Three-Phase AC200V
Three-Phase AC400V



ACTUATOR SELECTION CHART

| SIZE | ACTUATOR TYPE |
|----------------|---------------|
| 125mm (5inch) | LTRM-01 |

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

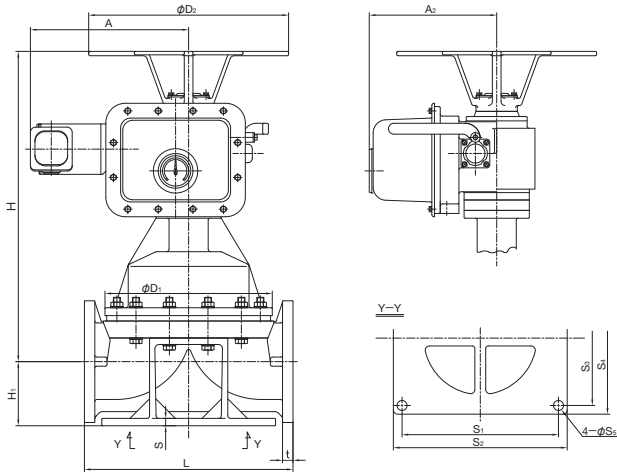
■ JIS, DIN (Unit: mm)

| mm | D1 | D2 | H | H1 | A | A1 | A3 | S | S1 | S2 | S3 | S4 | S5 | JIS5K, JIS10K | | | DIN PN10 | | |
|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|---------------|----|---------|----------|----|---------|
| | | | | | | | | | | | | | | L | t | PP PVDF | L | t | PP PVDF |
| 125 | 320 | 220 | 590 | 134 | 325 | 171 | 284 | 15 | 310 | 350 | 280 | 320 | 23 | 410 | 22 | 24 | 400 | 22 | 23 |

■ ANSI (Unit: inch)

| inch | mm | D1 | D2 | H | H1 | A | A1 | A3 | S | S1 | S2 | S3 | S4 | S5 | ANSI CLASS150 | | |
|------|-----|-------|------|-------|------|-------|------|-------|------|-------|-------|-------|-------|------|---------------|------|---------|
| | | | | | | | | | | | | | | | L | t | PP PVDF |
| 5 | 125 | 12.60 | 8.66 | 23.23 | 5.28 | 12.80 | 6.73 | 11.18 | 0.59 | 12.20 | 13.78 | 11.02 | 12.60 | 0.91 | 16.14 | 0.87 | 0.94 |

TYPE S
 Three-Phase
 AC200V
 Three-Phase
 AC400V



ACTUATOR SELECTION CHART

| SIZE | ACTUATOR TYPE |
|----------------|--|
| 150mm (6inch) | LTMD-01 (AUTOMATIC RETURN) MECHANISM |
| | LTKD-01 (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 | S5 | JIS5K, JIS10K | | | DIN PN10 | | |
|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|---------------|----|---------|----------|----|---------|
| | | | | | | | | | | | | | L | t | PP PVDF | L | t | PP PVDF |
| 150 | 385 | 460 | 714 | 145 | 357 | 293 | 16 | 360 | 400 | 310 | 350 | 23 | 480 | 24 | 27 | 480 | 24 | 27 |

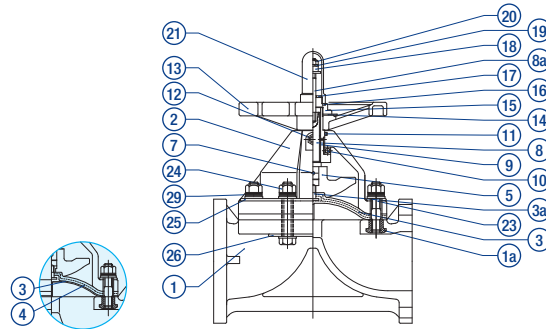
■ ANSI (Unit: inch)

| inch | mm | D1 | D2 | H | H1 | A | A2 | S | S1 | S2 | S3 | S4 | S5 | ANSI CLASS150 | | |
|------|-----|-------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|------|---------------|------|---------|
| | | | | | | | | | | | | | | L | t | PP PVDF |
| 6 | 150 | 15.16 | 18.11 | 28.11 | 5.71 | 14.06 | 11.54 | 0.63 | 14.17 | 15.75 | 12.20 | 13.78 | 0.91 | 18.90 | 0.94 | 1.06 |

DIAPHRAGM VALVE TYPE 72



PARTS LIST MANUAL



WHEN DIAPHRAGM MATERIAL IS PTFE

| 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 | ⑨ SLEEVE (A) | 1 | C3604 | ⑲ SPRING WASHER | 1 | SUS304 |
| ② BONNET | 1 | PVDF — PPG (1) PVDF — PVDF | 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) | 3a 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.

COMPATIBLE ACTUATOR AUTOMATIC



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



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

PRODUCT MODEL
CODE LIST
MANUAL

| ACTUATION | TYPE | OPERATING SYSTEM | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES |
|-------------------|---------------|--------------------|---|------------------|--------------|-------------------------------------|-----------------------------|---------------------|
| V | 72 | MH | * | * | F | * | *** | 1 |
| 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 JIS10K 5 5K D DIN A ANSI | 200 200mm • 250 250mm | 1 LUBRICANT FREE |

PRODUCT MODEL
CODE LIST
AUTOMATIC

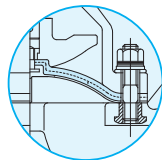
| ACTUATION | TYPE | ACTUATOR TYPE | ACTION / POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES |
|-------------------------|---------------|--|--|---------------------------|------------------|--------------|--|-----------------------------|---------------------|
| A | 72 | * | * | * | * | F | * | *** | 1 |
| 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 | 1 LUBRICANT FREE |

MANUAL

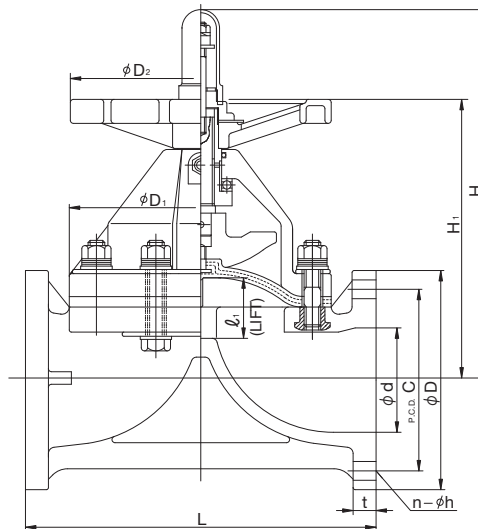
DIAPHRAGM VALVE TYPE 72

TYPE—V72MH

CONNECTION / FLANGED—JIS, DIN, ANSI



WHEN DIAPHRAGM MATERIAL IS PTFE



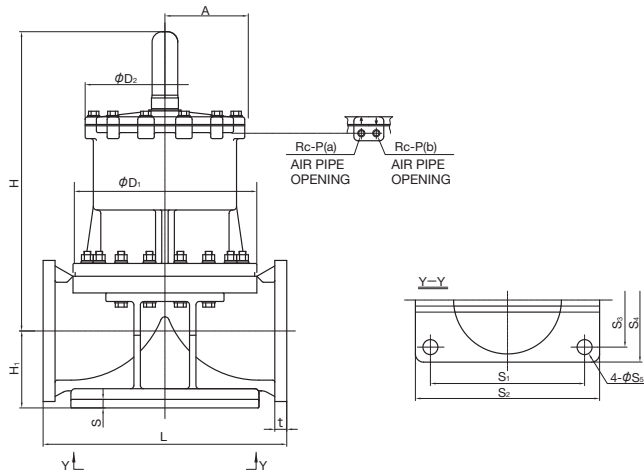
■ JIS, DIN (Unit: mm)

| mm | d | D ₁ | D ₂ | ℓ | H ₁ | H | JIS | | | | | | | | DIN PN10 | | | | | | | | | | | | | |
|-----|-----|----------------|----------------|-----|----------------|-----|-------|-----|----|----|--------|-----|----|----|----------|----|-------|-----|------|----|----|-----|----|----|---|-------|----|------|
| | | | | | | | JIS5K | | | | JIS10K | | | | L | t | U-PVC | PP | PVDF | D | C | n | h | L | t | U-PVC | PP | PVDF |
| | | | | | | | D | C | n | h | D | C | n | h | | | | | | | | | | | | | | |
| 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)

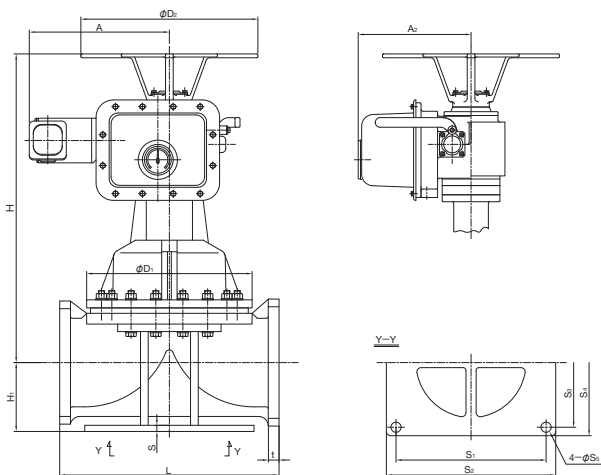
| inch | mm | d | D ₁ | D ₂ | ℓ | H ₁ | H | ANSI | | | | | |
|------|-----|------|----------------|----------------|------|----------------|-------|-------|-------|----|------|-------|------|
| | | | | | | | | D | C | n | h | L | t |
| 8 | 200 | 7.72 | 16.93 | 16.14 | 3.74 | 16.50 | 24.69 | 13.50 | 11.75 | 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 |

TYPE AV



TYPE S

Three-Phase
AC200V
Three-Phase
AC400V



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 | t PP PVDF | L | U-PVC | t 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 | | |

DIAPHRAGM VALVE TYPE AI / TRUE UNION DIAPHRAGM VALVE TYPE AI

- NEAR-LINEAR FLOW CHARACTERISTICS
- MAXIMUM WORKING PRESSURE OF 1.0 MPa. EXCELLENT OPEN/CLOSE DURABILITY TO WITHSTAND MORE THAN 500,000 CYCLES OF OPENING AND CLOSING.
- FOR THE AIR TO OPEN TYPE, TWO SPEC TYPES (1.0 MPa AND 0.7 MPa) ARE AVAILABLE.
- ALL-PLASTIC DESIGN ENSURES EXCELLENT CORROSION RESISTANCE.



AUTOMATIC



TRUE UNION DIAPHRAGM VALVE (TYPE AI)

COMPATIBLE ACTUATOR **AUTOMATIC**



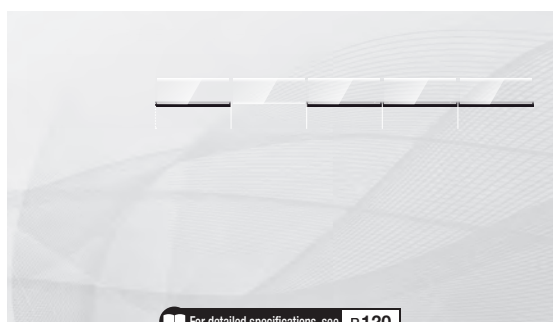
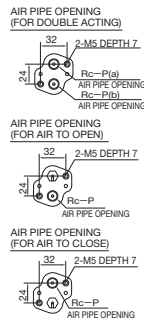
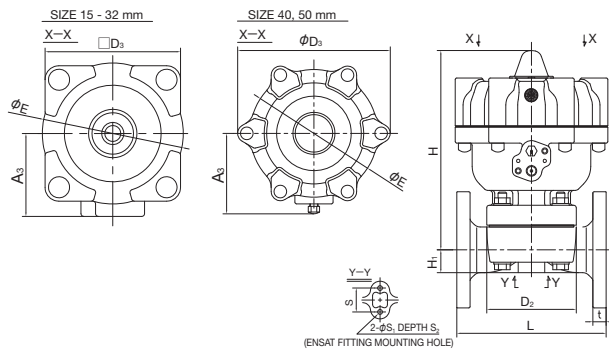
TYPE AI

For detailed specifications, see P.120

PRODUCT MODEL CODE LIST — DIAPHRAGM VALVE (TYPE AI)

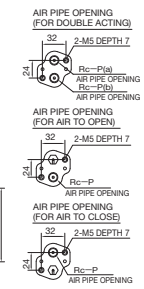
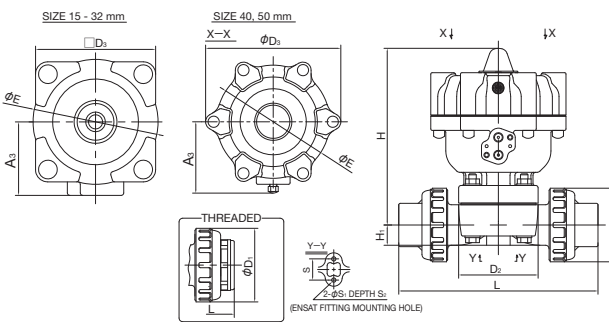
| | | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES |
|--|--------------------------------------|--------------------------------------|------------------------------------|-----------------------------|-----------------------------|---------------------------|--------------------|
| | | * | * | F | * | *** | 1 |
| | | U U-PVC C C-PVC P PP F PVDF | E EPDM T PTFE | F FLANGED | 1 JIS10K D DIN A ANSI | 015 15mm ? 050 50mm | 1 LUBRICANT FREE |
| TRUE UNION DIAPHRAGM VALVE (TYPE AI) | | | | | | | |
| ACTUATOR / POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE | HIGH PURITY SERIES | |
| * | * | * | * | * | * | *** | 1 |
| I TYPE AI F DOUBLE ACTING (1.0 MPa TYPE) G AIR TO OPEN (0.7 MPa TYPE) H AIR TO OPEN (1.0 MPa TYPE) S AIR TO CLOSE (1.0 MPa TYPE) | U U-PVC C C-PVC P PP F PVDF | E EPDM 1 PTFE+EPDM 2 PTFE+FKM | S SOCKET N THREADED P SPIGOT | J JIS10K D DIN A ANSI | 015 15mm ? 050 50mm | 1 LUBRICANT FREE | |

TYPE AI



For detailed specifications, see P.120

TYPE AI



| SIZE | ACTUATOR TYPE | | | | |
|------------------|------------------|----------------|----------------|----------|--------|
| | DIAPHRAGM COMMON | PTFE DIAPHRAGM | EPDM DIAPHRAGM | | |
| 15mm (1/2inch) | AI-1DA | AI-1AO | AI-1AO-P | AI-1AO-E | AI-1AS |
| 20mm (3/4inch) | AI-2DA | AI-2AO | AI-2AO-P | AI-2AO-E | AI-2AS |
| 25mm (1inch) | AI-3DA | AI-3AO | AI-3AO-P | AI-3AO-E | AI-3AS |
| 32mm (1 1/4inch) | AI-4DA | AI-4AO | AI-4AO-P | AI-4AO-E | AI-4AS |
| 40mm (1 1/2inch) | AI-5DA | AI-5AO | AI-5AO-P | AI-5AO-E | AI-5AS |

For detailed specifications, see P.120

■ JIS, DIN (Unit: mm)

| mm | D1 | D2 | D3 | E | H | | A3 | | | S | S1 | S2 | P |
|----|-----|---------|-----|-----|--------------------------------------|----------------------|---------------|-----------------------------|----|----|----|----|-----|
| | | | | | AIR TO OPEN (0.7MPa) AIR TO CLOSE | AIR TO OPEN (1.0MPa) | DOUBLE ACTING | AIR TO OPEN AIR TO CLOSE | | | | | |
| 15 | 48 | 54×66 | 91 | 94 | 145 | 145 | 19.5 | 55 | 67 | 25 | 7 | 13 | 1/4 |
| 20 | 60 | 60×74 | 91 | 94 | 153 | 153 | 17.5 | 55 | 67 | 25 | 7 | 13 | 1/4 |
| 25 | 70 | 67×80 | 100 | 102 | 161 | 161 | 18.5 | 60 | 72 | 25 | 7 | 13 | 1/4 |
| 32 | 82 | 67×80 | 100 | 102 | 165 | 165 | 22.5 | 60 | 72 | 25 | 7 | 13 | 1/4 |
| 40 | 100 | 108×108 | 184 | 154 | 238 | 238 | 27.5 | 85 | 97 | 45 | 9 | 15 | 1/4 |
| 50 | 106 | 123×123 | 184 | 154 | 254 | 278 | 36 | 85 | 97 | 45 | 9 | 15 | 1/4 |

| JIS | | DIN | | | | | | | | | |
|----------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|------------|------|--|
| SOCKET | THREADED | SOCKET | | THREADED | | SPIGOT | | | | | |
| L | L | L | L | L | L | L | L | L | L | t | |
| U-PVC C-PVC | U-PVC C-PVC | PP PVDF | U-PVC C-PVC | PP PVDF | U-PVC C-PVC | PP PVDF | U-PVC C-PVC | PP PVDF | PP PVDF | PVDF | |
| 134 | 128 | 128 | 128 | 125 | 128 | 128 | 150 | 150 | 2.5 | 1.9 | |
| 156 | 148 | 148 | 147 | 141 | 148 | 148 | 172 | 172 | 2.7 | 1.9 | |
| 186 | 172 | 172 | 172 | 164 | 172 | 172 | 195 | 195 | 3.0 | 2.4 | |
| 200 | 188 | 188 | 188 | 177 | 188 | 188 | 212 | 212 | 3.7 | 2.4 | |
| 271 | 245 | 245 | 246 | 231 | 245 | 245 | 276 | 276 | 4.6 | 3.0 | |
| 303 | 281 | 278 | 294 | 274 | 285 | 278 | 308 | 307 | 5.8 | 3.0 | |

■ ANSI (Unit: inch)

| inch | mm | D1 | D2 | D3 | E | H | | A3 | | | S | S1 | S2 | P |
|-------|----|------|-----------|------|------|--------------------------------------|----------------------|---------------|-----------------------------|------|------|------|-----|---|
| | | | | | | AIR TO OPEN (0.7MPa) AIR TO CLOSE | AIR TO OPEN (1.0MPa) | DOUBLE ACTING | AIR TO OPEN AIR TO CLOSE | | | | | |
| 1/2 | 15 | 1.89 | 2.13×2.60 | 3.58 | 3.70 | 5.71 | 0.77 | 2.17 | 2.64 | 0.98 | 0.28 | 0.51 | 1/4 | |
| 3/4 | 20 | 2.36 | 2.36×2.91 | 3.58 | 3.70 | 6.02 | 0.69 | 2.17 | 2.64 | 0.98 | 0.28 | 0.51 | 1/4 | |
| 1 | 25 | 2.76 | 2.64×3.15 | 3.94 | 4.02 | 6.34 | 0.73 | 2.36 | 2.83 | 0.98 | 0.28 | 0.51 | 1/4 | |
| 1 1/4 | 32 | 3.23 | 2.64×3.15 | 3.94 | 4.02 | 6.50 | 0.89 | 2.36 | 2.83 | 0.98 | 0.28 | 0.51 | 1/4 | |
| 1 1/2 | 40 | 3.94 | 4.25×4.25 | 7.24 | 6.06 | 9.37 | 1.08 | 3.35 | 3.82 | 1.77 | 0.35 | 0.59 | 1/4 | |
| 2 | 50 | 4.17 | 4.84×4.84 | 7.24 | 6.06 | 10.00 | 1.42 | 3.35 | 3.82 | 1.77 | 0.35 | 0.59 | 1/4 | |

| ANSI | | | | | | | | | |
|----------------|------------|----------------|------------|----------------|------------|----------------|------------|------------|-------|
| SOCKET | | THREADED | | | | SPIGOT | | | |
| L | L | L | L | L | L | L | L | 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 | PP PVDF | PVDF |
| 5.47 | 5.43 | 5.04 | 5.04 | 5.04 | 5.04 | 5.04 | 5.04 | 5.04 | 5.04 |
| 6.18 | 6.09 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 |
| 7.32 | 7.24 | 6.77 | 6.77 | 6.77 | 6.77 | 6.77 | 6.77 | 6.77 | 6.77 |
| 7.95 | 7.80 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 |
| 10.47 | 10.28 | 9.65 | 9.65 | 9.65 | 9.65 | 9.65 | 9.65 | 9.65 | 9.65 |
| 11.54 | 11.54 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 | 11.06 |

DIAPHRAGM VALVE TYPE 16

- NEAR-LINEAR FLOW CHARACTERISTICS
- COMPACT BODY ALLOWS FOR INSTALLATION IN LIMITED PIPING SPACE.
- EXCELLENT OPEN/CLOSE DURABILITY TO WITHSTAND MORE THAN 1,000,000 CYCLES OF OPENING AND CLOSING
- ALL-PLASTIC BODY ENSURES EXCELLENT CORROSION RESISTANCE.

BASIC SPECIFICATIONS

VALVE TYPE ————— **DIAPHRAGM VALVE TYPE 16**

SIZE ————— **15 mm—50 mm (1/2 inch—2 inch)**

BODY MATERIAL ————— **U-PVC**

SEAL MATERIAL / DIAPHRAGM ————— **EPDM PTFE**

O-RING ————— **EPDM FKM**

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

SOCKET ————— **JIS, DIN, ANSI**

THREADED ————— **Rc, Rp, NPT**

| | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm ²) | | CONNECTION METHOD | | |
|-------|-------------------|---|--------------|-------------------|--------|----------|
| | | 15 mm - 25 mm | 40 mm, 50 mm | FLANGED | SOCKET | THREADED |
| U-PVC | 0°C ~ 50°C | 0.5 {5.1} | 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 and material, see the technical documents at the end of this catalog.



COMPATIBLE ACTUATOR **AUTOMATIC**

For detailed specifications, see P.121

| PRODUCT MODEL CODE LIST | ACTUATION | TYPE | ACTION / POWER SOURCE | BODY MATERIAL | SEAL MATERIAL | CONNECTION | SIZE | HIGH PURITY SERIES | OPERATION PORT DIRECTION | OPTION |
|-------------------------|-----------|------|-----------------------|---------------|---------------|------------|------|--------------------|--------------------------|--------|
| AUTOMATIC | A | 16 | ** | U | * | ** | *** | 1 | * | * |

| | | | | | | | |
|-----------------|---------|---------------------------------|-------|------------------------------------|--------------|----------------|--|
| A | 16 | DF | U | 1 | 015 | 1 | |
| AUTOMATIC VALVE | TYPE 16 | DOUBLE ACTING DG AIR TO OPEN | U-PVC | PTFE/EPDM PTFE/FKM EPDM/EPDM | 15mm 50mm | LUBRICANT FREE | |

| | | | | | | | | |
|----------------|-----------------------|----------------|-----------------|------------------|-----------------|-----------------|------------------|-----------------|
| SJ SOCKET, JIS | SD SOCKET, ASTM SCH80 | NJ SOCKET, DIN | NA THREADED, Rc | ND THREADED, NPT | FP THREADED, Rp | FA FLANGED, 10K | FD FLANGED, ANSI | FD FLANGED, DIN |
|----------------|-----------------------|----------------|-----------------|------------------|-----------------|-----------------|------------------|-----------------|

1 (Standard)
 2
 3
 4

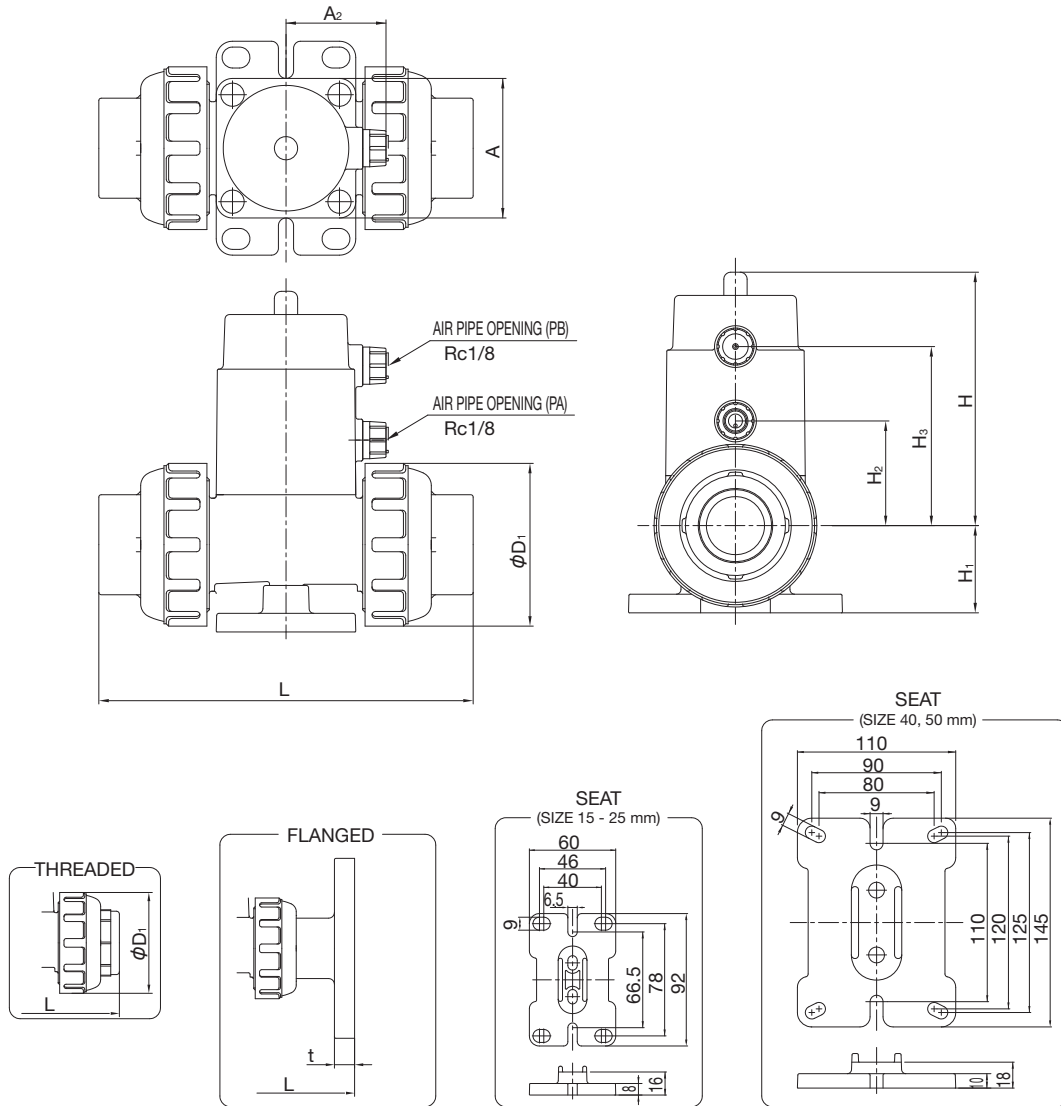
FLUID DIRECTION
 OPERATION PORT DIRECTION

| | |
|----|--|
| 1 | NONE |
| 2 | SPEED CONTROLLER |
| 3 | FULL OPENING ADJUSTMENT |
| 4 | FULL OPENING ADJUSTMENT / SPEED CONTROLLER |
| 5* | FULL OPENING ADJUSTMENT / INDICATOR |
| 6* | FULL OPENING ADJUSTMENT / INDICATOR / SPEED CONTROLLER |

* Only applicable for sizes of 15 mm to 25 mm.

TYPE AD

TYPE AD
CONNECTION / FLANGED, SOCKET, THREADED—JIS, DIN, ANSI



■ JIS, DIN (Unit: mm)

| mm | D ₁ | H | H ₁ | H ₂ | H ₃ | A | A ₂ | JIS | | | DIN | | | | |
|----|----------------|-------|----------------|----------------|----------------|------|----------------|---------------------|-------------|---------------|-------------------|-------------|---------------|-------|-------|
| | | | | | | | | FLANGED JIS10K L | SOCKET L | THREADED L | FLANGED PN10 L | SOCKET L | THREADED L | | |
| 15 | 48 | 79.0 | 33.0 | 33 | 60 | □50 | 38 | 158 | 12 | 124.4 | 117.0 | 145 | 12 | 117 | 117 |
| 20 | 60 | 108.0 | 36.5 | 44 | 76 | □60 | 43 | 191 | 14 | 147.0 | 139.0 | 169 | 14 | 138 | 139 |
| 25 | 70 | 109.0 | 37.5 | 45 | 77 | □60 | 43 | 205.5 | 14 | 163.5 | 149.5 | 178.5 | 14 | 149.5 | 149.5 |
| 40 | 100 | 161.5 | 53.0 | 68 | 115 | □95 | 60 | 264 | 16 | 241.0 | 215.0 | 252 | 16 | 216 | 215 |
| 50 | 126 | 188.5 | 66.0 | 83 | 137 | □115 | 70.5 | 297 | 16 | 283.0 | 260.0 | 293 | 16 | 260 | 260 |

■ ANSI (Unit: inch)

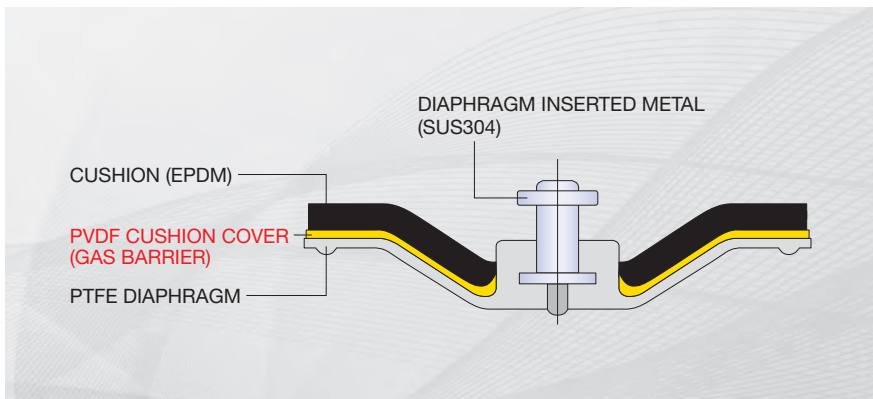
| inch | mm | D ₁ | H | H ₁ | H ₂ | H ₃ | A | A ₂ | ANSI | | | |
|-------|----|----------------|------|----------------|----------------|----------------|------|----------------|--------------|-------------|---------------|-------|
| | | | | | | | | | FLANGED L | SOCKET L | THREADED L | |
| 1/2 | 15 | 1.89 | 3.11 | 1.30 | 1.30 | 2.36 | 1.97 | 1.49 | 6.22 | 0.47 | 5.04 | 4.61 |
| 3/4 | 20 | 2.36 | 4.25 | 1.44 | 1.73 | 2.99 | 2.36 | 1.69 | 7.52 | 0.55 | 5.83 | 5.47 |
| 1 | 25 | 2.76 | 4.29 | 1.48 | 1.77 | 3.03 | 2.36 | 1.69 | 8.09 | 0.55 | 6.44 | 5.89 |
| 1 1/2 | 40 | 3.94 | 6.36 | 2.09 | 2.68 | 4.53 | 3.74 | 2.36 | 10.39 | 0.63 | 9.29 | 8.46 |
| 2 | 50 | 4.96 | 7.42 | 2.60 | 3.27 | 5.39 | 4.53 | 2.77 | 11.69 | 0.63 | 10.71 | 10.24 |

OPTIONS

In addition to the standard product lines described on the previous pages, the following options are also available according to your requirements:

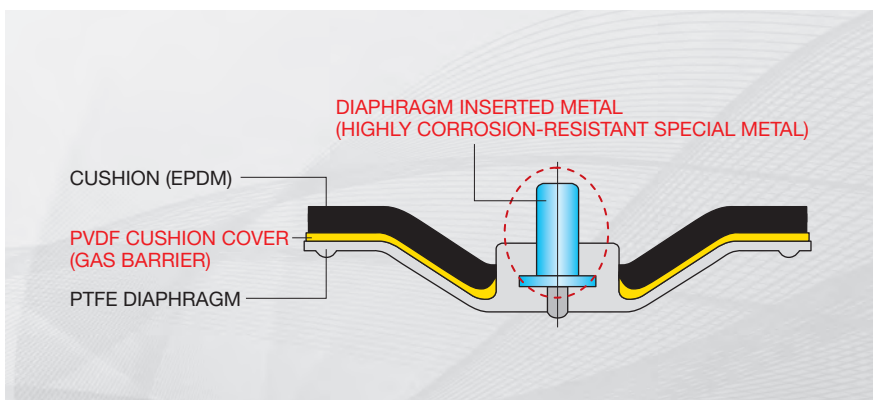
1 PVDF Cushion Cover Model

For corrosive fluid transport lines, we offer PVDF cushion cover accessories having excellent gas barrier performance to prevent deterioration due to permeation of gas from the diaphragm.



2 Electrolytic Model

For chlorine gas lines in electrolysis plants, we offer electrolytic options using highly corrosion resistant special metal to prevent corrosion of embedded diaphragm fittings.



3 EL Model

For lines in harsher conditions, we offer EL Model comprising a main body (EL-PVDF) made of special materials and a PTFE diaphragm (EL-PTFE).

<Size>

15 - 100 mm: Standard model applicable
 125 - 250 mm: Made-to-order

* For details, contact our sales office in your area.

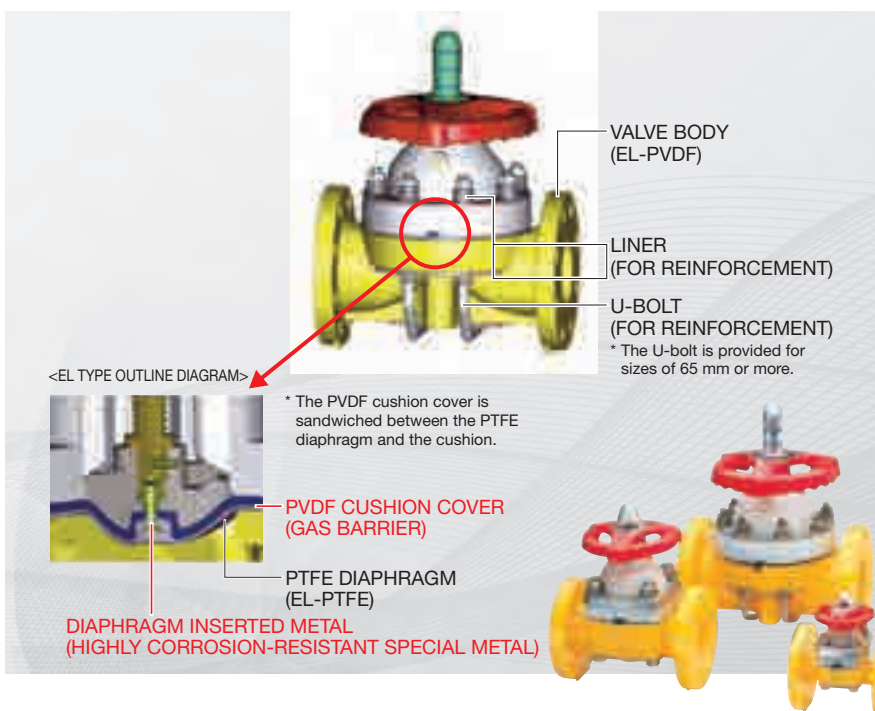
<Field test result>

- Soda electrolysis plant / returned brine
- 88°C, 0.3 MPa, used for 5 years

[EL-PVDF]
Without blister



[PVDF]
With blister



4 MODEL A AND MODEL B

Diaphragm valve type 72 (size: 200 mm, 250 mm) can be divided into Model A and Model B.

Model A is the standard type. Normally, select Model A.

Select Model B when Model A cannot be used due to the relationship between the working temperature and pressure.

| | MODEL A (STANDARD) | MODEL B (OPTION) |
|-----------------------------|--|--|
| BODY MATERIAL: U-PVC | <p>DIAPHRAGM MATERIAL: RUBBER AND PTFE</p> | <p>DIAPHRAGM MATERIAL: RUBBER AND PTFE</p> |
| BODY MATERIAL: PP | <p>DIAPHRAGM MATERIAL: RUBBER AND PTFE</p> | <p>DIAPHRAGM MATERIAL: RUBBER AND PTFE</p> |
| BODY MATERIAL: PVDF | <p>DIAPHRAGM MATERIAL: RUBBER AND PTFE</p> | <p>DIAPHRAGM MATERIAL: PTFE</p> |