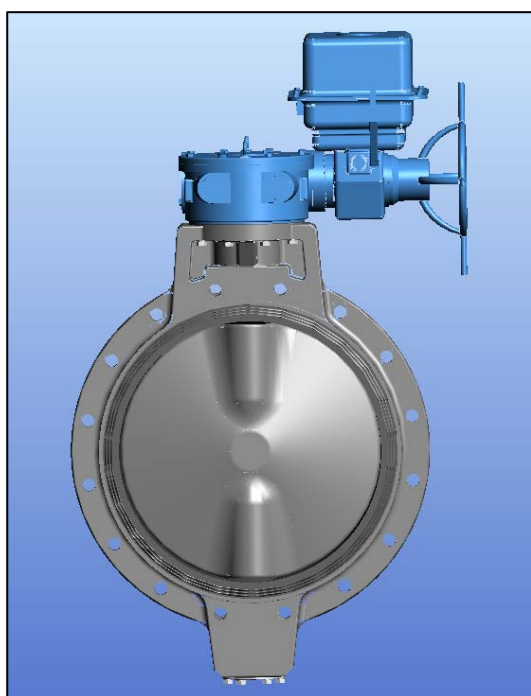


Serial No.	H-A051-E-6
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**PDCPD Butterfly Valve  
Electric Actuated Type S  
700-1200mm (28"-48")**

**User's Manual**





**Contents**



- 1) Be sure to read the following warranty clauses of our product ..... 1
- 2) General operating instructions ..... 2
- 3) General instructions for transportation, unpacking and storage ..... 3
- 4) Name of parts ..... 4
- 5) Working pressure vs. temperature ..... 6
- 6) Actuator specifications ..... 7
  - Wiring diagram ..... 8
- 7) Installation procedure ..... 9
- 8) Support Setting Procedure ..... 13
- 9) Electric wiring procedure ..... 14
- 10) Operating procedure ..... 15
  - Manual operating procedure ..... 16
  - Motor-driven operating procedure ..... 16
- 11) Limit switch adjustment ..... 17
- 12) Inspection items ..... 18
- 13) Troubleshooting ..... 18
- 14) Handling of residual and waste materials ..... 19

This user's guide contains information important to the proper installation, maintenance and safe use of an ASAHI AV Product. Please store this manual in an easily accessible location.

<Warning & Caution Signs>

 Warning	This symbol reminds the user to take caution due to the potential for serious injury or death.
 Caution	This symbol reminds the user to take caution due to the potential for damage to the valve if used in such a manner.

<Prohibited & Mandatory Action Signs>

	Prohibited: When operating the valve, this symbol indicates an action that should not be taken.
	Mandatory action: When operating the valve, this symbol indicates mandatory actions that must be adhered to.

**(1) Be sure to read the following warranty clauses of our product**

- Always observe the specifications of and the precautions and instructions on using our product.
- We always strive to improve product quality and reliability, but cannot guarantee perfection. Therefore, should you intend to use this product with any equipment or machinery that may pose the risk of serious or even fatal injury, or property damage, ensure an appropriate safety design or take other measures with sufficient consideration given to possible problems. We shall assume no responsibility for any inconvenience stemming from any action on your part without our written consent in the form of specifications or other documented approval.
- The related technical documents, operation manuals, and other documentation prescribe precautions on selecting, constructing, installing, operating, maintaining, and servicing our products. For details, consult with our nearest distributor or agent.
- Our product warranty extends for one and a half years after the product is shipped from our factory or one year after the product is installed, whichever comes first. Any product abnormality that occurs during the warranty period or which is reported to us will be investigated immediately to identify its cause. Should our product be deemed defective, we shall assume the responsibility to repair or replace it free of charge.
- Any repair or replacement needed after the warranty period ends shall be charged to the customer.
- The warranty does not cover the following cases:
  - (1) Using our product under any condition not covered by our defined scope of warranty.
  - (2) Failure to observe our defined precautions or instructions regarding the construction, installation, handling, maintenance, or servicing of our product.
  - (3) Any inconvenience caused by any product other than ours.
  - (4) Remodeling or otherwise modifying our product by anyone other than us.
  - (5) Using any part of our product for anything other than the intended use of the product.
  - (6) Any abnormality that occurs due to a natural disaster, accident, or other incident not stemming from something inside our product.

(2) General operating instructions



Warning



- Do not disassemble or modify the actuator.

- Keep hands and other extremities away from moving parts under all circumstances.

(Any such practice may get your hand, arm, or other part of your body caught.)

- Do not operate the manual override while the actuator is energized.



- Using a positive-pressure gas with our plastic piping may pose a dangerous condition due to the repellent force particular to compressible fluids even when the gas is under similar pressures used for liquids. Therefore, be sure to take the necessary safety precautions such as covering the piping with protective material. For inquiries, please contact us. For conducting a leak test on newly installed piping, be sure to check for leaks under water pressure. If absolutely necessary to use a gas in testing, please consult your nearest service station beforehand.

- Before using the product, check the operating power supply and the voltage specification on the nameplate. Using an improper voltage may cause equipment damage or malfunction.



Caution



- Do not step on or apply excessive weight on valve. (It can be damaged.)

- Do not use AV valves in a place where they may become submerged in water.

- Do not strike, impact, drop or cause vibrations to the actuator.

(Any such practice may result in a breakdown.)

- Do not use the valve in conditions where the fluid may have crystallized.

(The valve will not operate properly.)



- Keep the valve away from excessive heat or fire. (It can be damaged, or destroyed.)

- Avoid locations with corrosive gas or otherwise chemically aggressive atmospheres. Install a cover or something similar to isolate the valve and actuator from the atmosphere.

- Always operate the valve within the pressure vs. temperature range.

(The valve can be damaged or deformed by operating beyond the allowable range.)

- Allow sufficient space for maintenance and inspection.

- Select a valve material that is compatible with the media. For chemical resistance information, refer to "CHEMICAL RESISTANCE ON ASAHI AV VALVE".

(Some chemicals may damage incompatible valve materials.)

- Keep the valve out of direct sunlight, water and dust. Use cover to shield the valve.

(The valve will not operate properly.)

- Perform periodic maintenance. (Leakage may develop due to temperature changes or periods of prolonged storage, rest, or operation.)

- When installing a valve, provide an appropriate support. (Lack of such a support may cause the valve and piping to be overstrained, resulting in damage or other defect.)

- In the case of malodor, overheating, or smoking, turn off the power supply immediately. (Continued use despite an abnormality present may result in a fire. If you detect any abnormalities, be sure to consult the dealership where you bought the product or our service station nearest your premises and ask them to perform an inspection.)






- For manual operation, be sure to use the handle furnished with the product by the manufacturer.

- When using the product in explosive atmosphere, ensure that the actuator complies with the explosion-proof specifications required for that area.

- Keep the ambient temperature of the installed location within the range -5°C and 50°C.

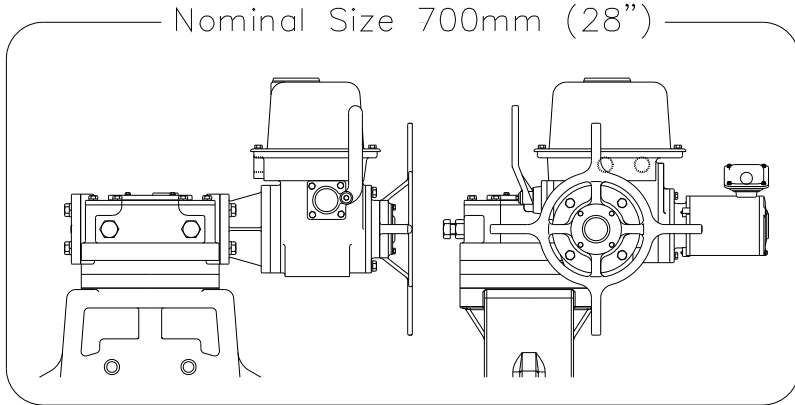
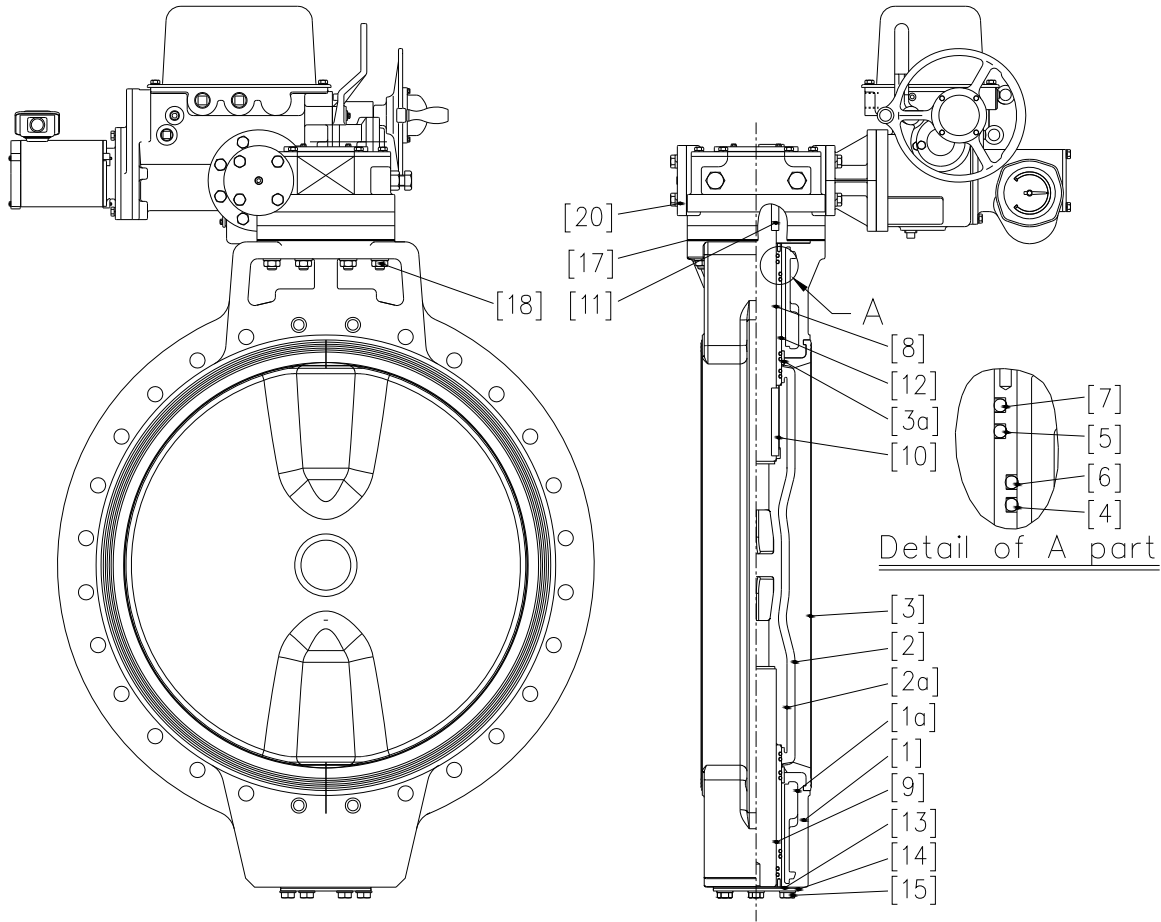
- If the product is not water-resistant, do not leave the actuator in soil, sand, or water.

**(3) General instructions for transportation, unpacking and storage**

- 

 - When suspending and supporting a valve, take care and do not stand under a suspended valve.
- Warning
 

 - This valve is not designed to handle impacts of any kind. Avoid throwing or dropping the valve.
- Caution
  - Avoid scratching the valve with any sharp object.
  - Do not over-stack cardboard shipping boxes. Excessively stacked packages may collapse.
  - Avoid contact with any coal tar creosote, insecticides, vermicides or paint.  
(These chemicals may cause damage to the valve.)
  - When transporting a valve, do not carry it by the handle.
- 
 - Store products in their corrugated cardboard boxes. Avoid exposing products to direct sunlight, and store them indoors (at room temperature). Also avoid storing products in areas with excessive temperatures. (Corrugated cardboard packages become weaker as they become wet with water or other liquid. Take care in storage and handling.)
- After unpacking the products, check that they are defect-free and meet the specifications.

(4) Name of parts

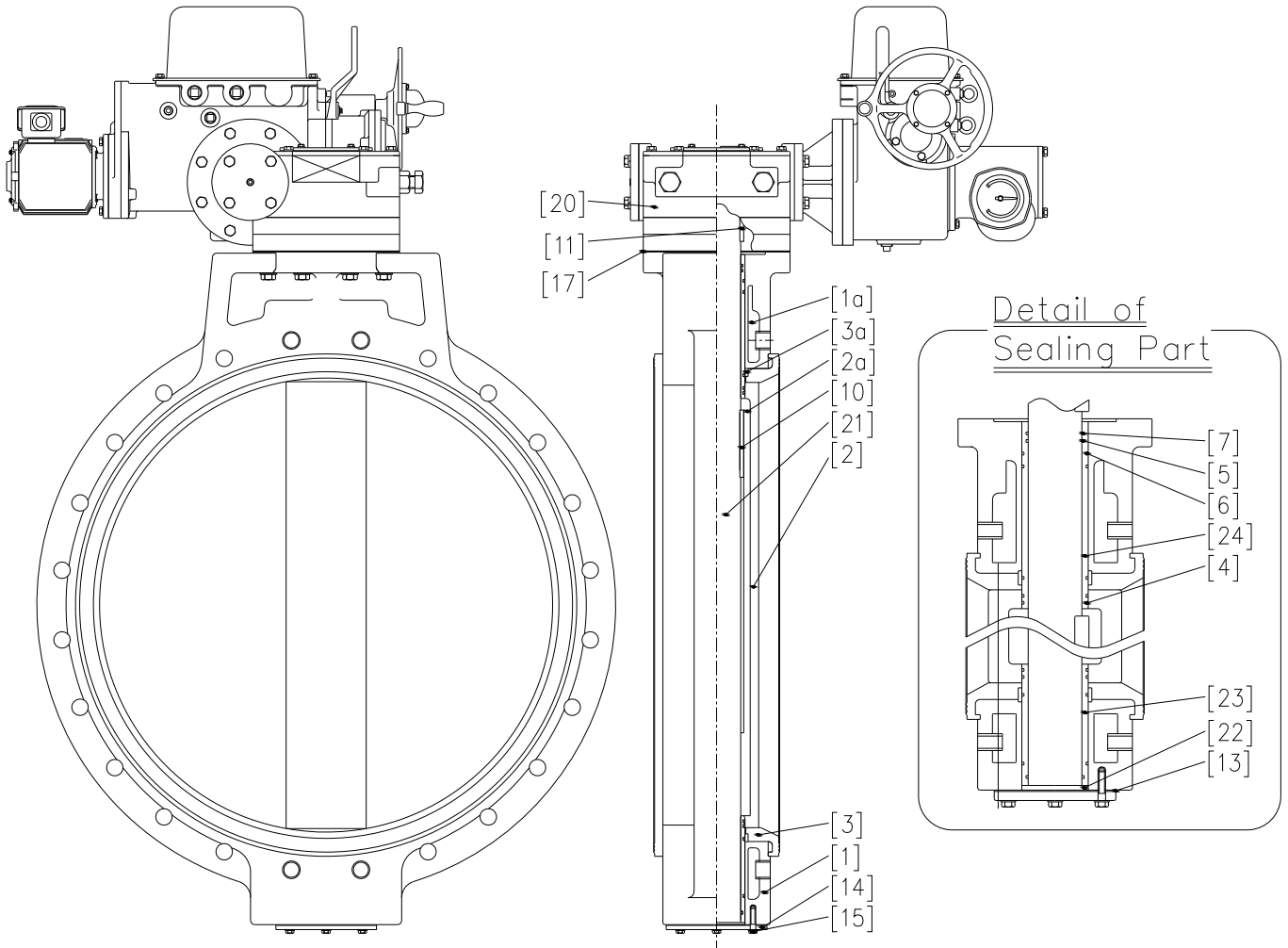
PDCPD Butterfly Valve  
Nominal Size: 700-1000mm (28"-40")



No.	Description	No.	Description	No.	Description
[1]	Body	[5]	O-Ring (B)	[12]	Bush
[1a]	Inserted Metal of Body	[6]	O-Ring (C)	[13]	Gasket (A)
[2]	Disc	[7]	O-Ring (D)	[14]	Stem Holder (A)
[2a]	Inserted Metal of Disc	[8]	Stem (A)	[15]	Bolt (A)
[3]	Seat	[9]	Stem (B)	[17]	Gasket (B)
[3a]	Stabilization Ring	[10]	Key (A)	[18]	Bolt (B)
[4]	O-Ring (A)	[11]	Key (B)	[20]	Actuator

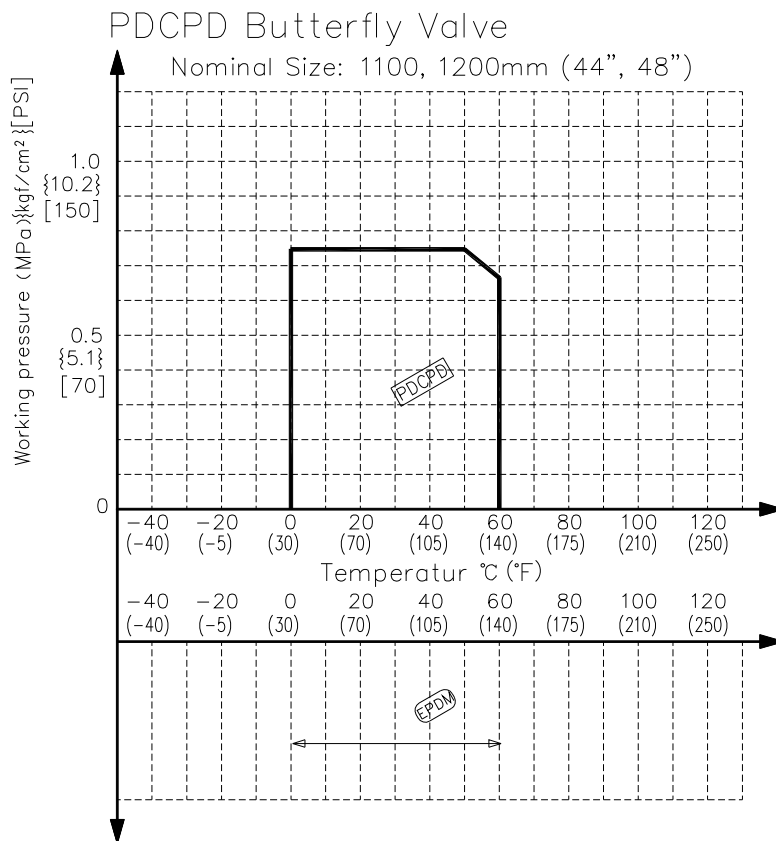
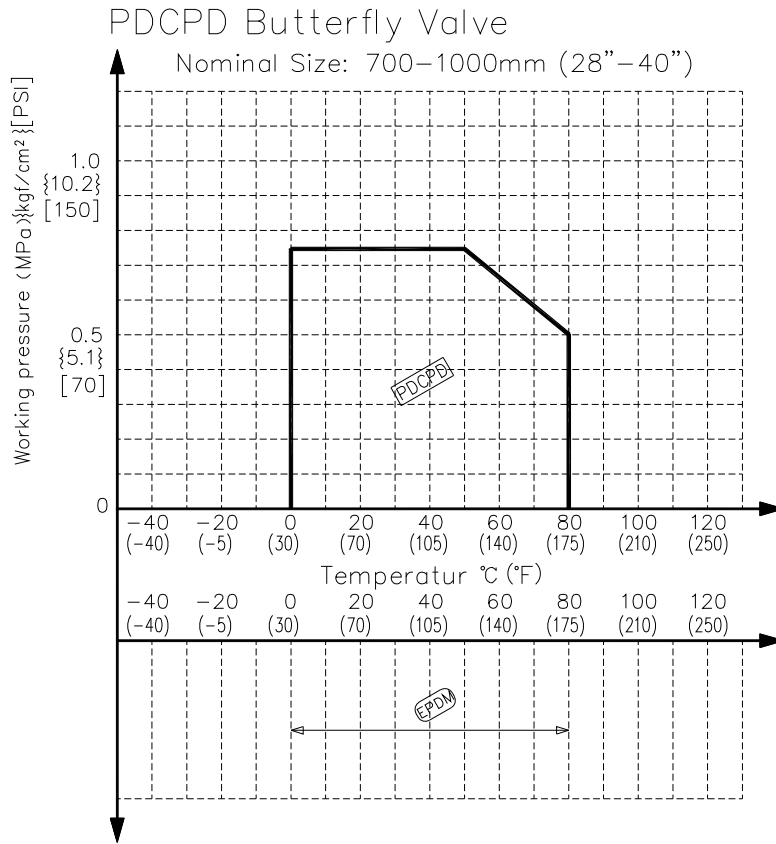
PDCPD Butterfly Valve

Nominal Size: 1100, 1200mm (44", 48")



No.	Description	No.	Description	No.	Description
[1]	Body	[5]	O-ring(B)	[15]	Bolt (A)
[1a]	Inserted Metal of Body	[6]	O-ring(C)	[17]	Gasket (B)
[2]	Disc	[7]	O-ring(D)	[20]	Actuator
[2a]	Insert Metal of Disc	[10]	Key (A)	[21]	Stem
[3]	Seat	[11]	Key (B)	[22]	Thrust
[3a]	Stabilization Ring	[13]	Gasket (A)	[23]	Bush (A)
[4]	O-ring(A)	[14]	Stem Holder (A)	[24]	Bush (B)

(5) Working pressure vs. temperature



## (6) Actuator specifications

### List of Specifications

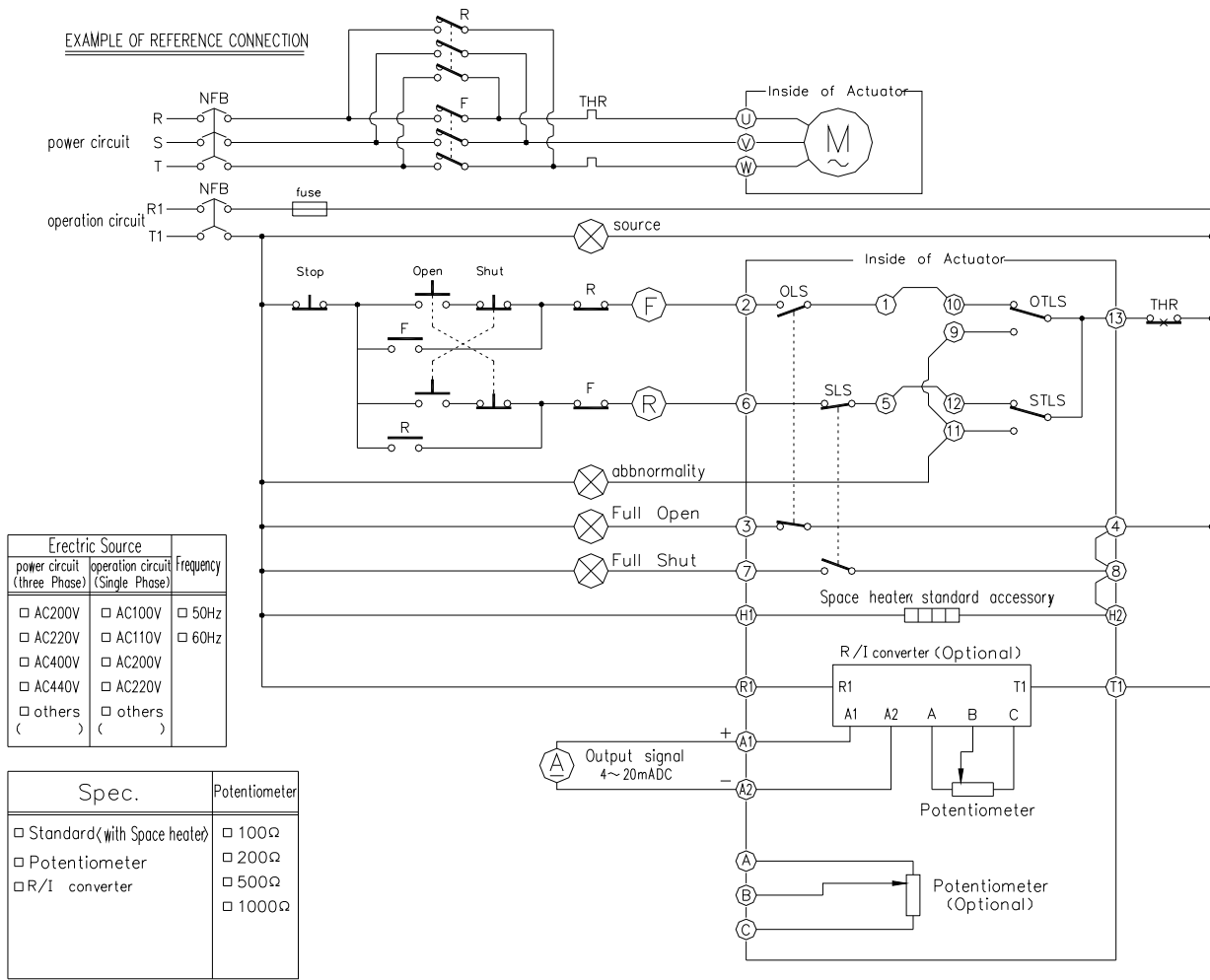
Adaptive Nominal Size		700mm (28")	800mm (32")	900mm (36")	1000mm (40")	1100mm (44")	1200mm (48")
Actuator Type		LTMD-02 /BRM-10	LTMD-05 /BRM-10	LTMD-05 /BRM-10	LTMD-05 /BRM-18	LTMD-1 /BRM-18	LTMD-1 /BRM-18
Opening and Closing Time (Sec.)	50Hz	75	68	43	50	50	68
	60Hz	63	76	51	49	57	69
Protection structure		IP55					
Motor starting current (A) 50/60Hz	AC200V	18.9/17.3	18.9/17.3	38.0/35.0	57.8/51.7	57.8/51.7	57.8/51.7
	AC400V	9.0/8.4	9.0/8.4	19.0/17.5	28.9/25.9	28.9/25.9	28.9/25.9
Motor rated current (A) 50/60Hz	AC200V	3.9/3.5	3.9/3.5	7.7/6.9	11/9.8	11/9.8	11/9.8
	AC400V	1.9/1.8	1.9/1.8	3.9/3.5	5.3/4.8	5.3/4.8	5.3/4.8
Number of rotations of manual operating handle		15	333	333	333	615	615
Insulation resistance		100MΩ					
Nominal diameter of cable connector		Operation Circuit: 2-G1, Motor Circuit: 1-G <sup>3</sup> / <sub>4</sub>					
Motor rated output (W)		0.75	0.75	1.5	2.2	2.2	2.2
Motor Insulation		B kind					
Motor travel time (min.)		15					
Capacity of limit switch		AC250V 5A					
Number of motor poles (P)		4					
Space heater rated output(W)		30					

\*For the electro-pneumatic positioner, "Z" comes to the end of the actuator type number. (e.g. LTMD-02Z/BRM-10)



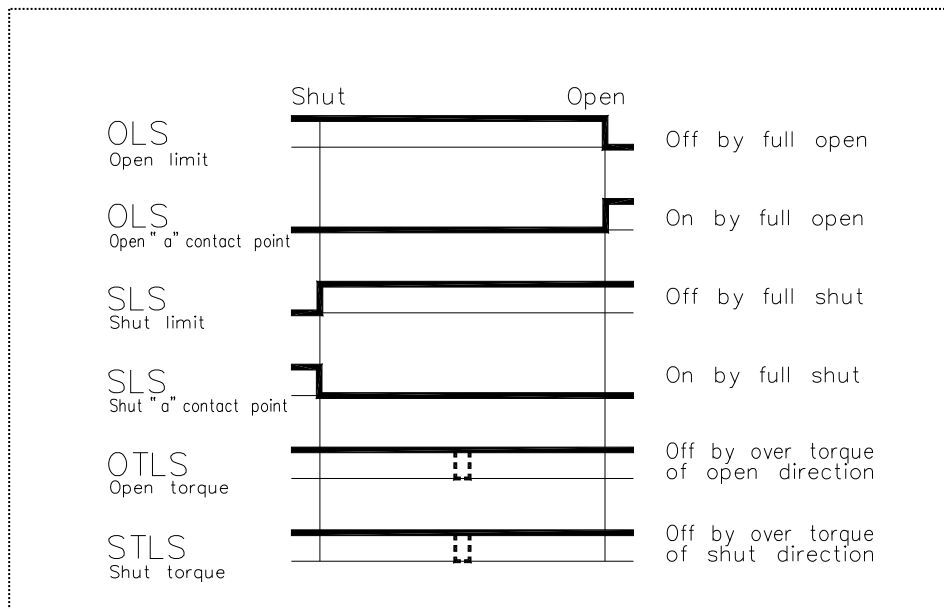
Wiring diagram

Type: LTMD



NOTE. This circuit diagram shows the position that the opening action has come to an end.

Switching chart



**(7) Installation procedure**



Warning



- When suspending and supporting a valve, take care and do not stand under a suspended valve.

- Be sure to conduct a safety check on all hand and power tools to be used before beginning work.  
 - Wear protective gloves and safety goggles as fluid remain in the valve even if the pipeline is empty. (You may be injured.)



Caution

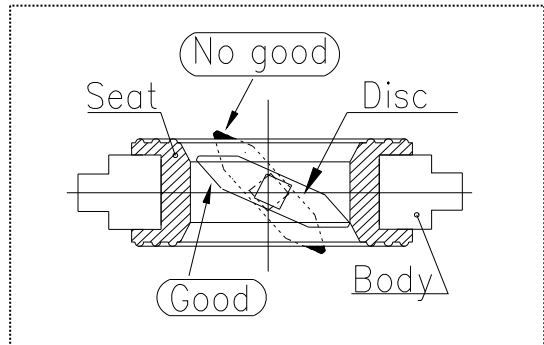
- When installing a pipe support by means of a U-band or something similar, take care not to over-tighten. (Excessive force may damage the pipe.)  
 - Do not install the valve with the disc fully closed. (The disc may pinch into the seat, resulting in a high operating torque and preventing the valve from operating properly.)  
 - The installed valve must never be opened or closed when foreign matter such as sand is present in the pipeline.



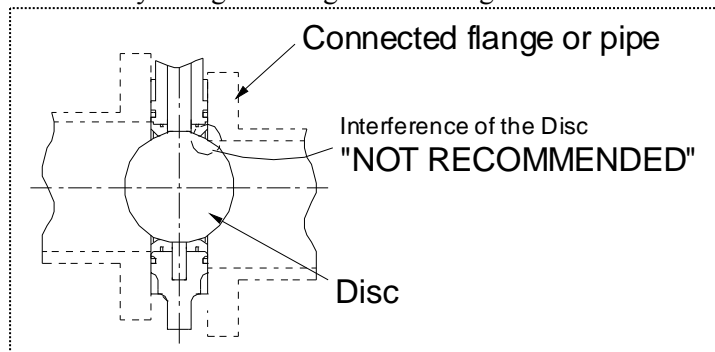
- When installing pipes and valves, ensure that they are not subjected to tension, compression, bending, impact, or other excessive stress.

- Use flat faced flanges for connection to AV Valves.  
 - Ensure that the mating flanges are of the same standards.  
 - Keep the ambient temperature of the installed location within the range -5°C and 50°C.

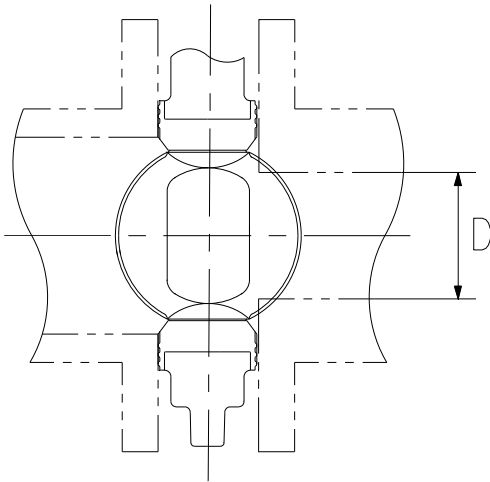
- The valve disc is in the position indicated by solid lines in figure to the right prior to shipment from the factory. If the valve is opened or closed after unpacking, it must be reset in this position before installation. Failure to do so will result in damage to the surface of the valve seat during handling and installation.



- Care must be used during piping installation to ensure that the pipes or flanges are properly aligned so that the valve disc does not contact them in any setting. Misalignment as in figure below will result in damage to the valve.



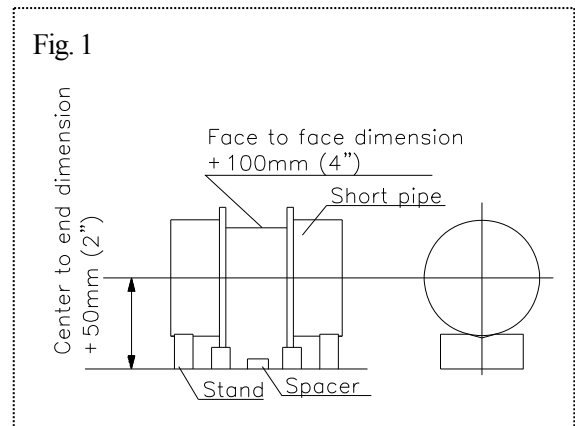
In case of an abutting thick walled flange and pipe, shave the flange or the pipe inner diameter in order to avoid contact of pipe and disc. If the inside diameter of the connecting pipe is larger than dimension D below, shaving is not necessary.



Unit: mm (inch)	
Nominal size	Diameter D
700 (28")	649 (25.55")
800 (32")	743 (29.25")
900 (36")	848 (33.39")
1000 (40")	936 (36.85")
1100 (44")	1054 (41.50")
1200 (48")	1136 (44.72")

1) Set the short pipes.

Set the short pipes with suitable stands so that the center of the valve in the upright position aligns with that of the short pipe. Using a cloth, wipe foreign matter away from the flange surfaces of the short pipes.

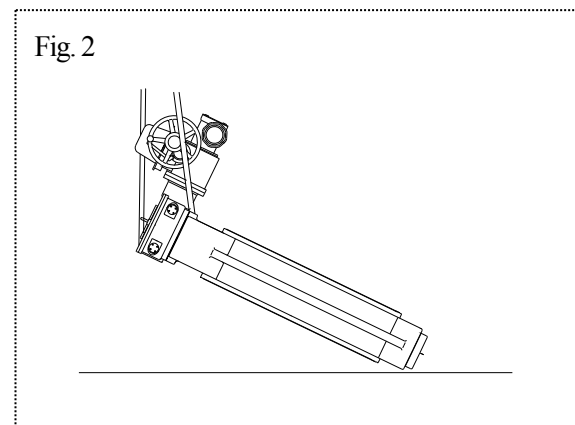


2) Stand the valve upright.

Wind the nylon sling around the head part of the body and gradually raise it up. After standing the valve upright, wipe foreign matter away from the seat with a cloth.

\*Support the valve up by looping a belt around the gearbox.

The eyebolt in the gearbox is designed to support the weight of only the gearbox (about 500kg), so avoid lifting up the whole valve with the eyebolt. Use it just as a support to stand the valve upright.



- Lower the valve gradually between the short pipes onto the spacer.

Lower the valve carefully without damaging the flange surfaces of short pipes

The required face to face dimension of each valve size is shown below.

Make sure that the valve is slightly closed.

Unit : mm (inch)

Nominal Size	Dimension	Nominal Size	Surface size
700 (28")	210 (8.28)	1000 (40")	300 (11.81)
800 (32")	240 (9.45)	1100 (44")	300 (11.81)
900 (36")	240 (9.45)	1200 (48")	350 (13.78)

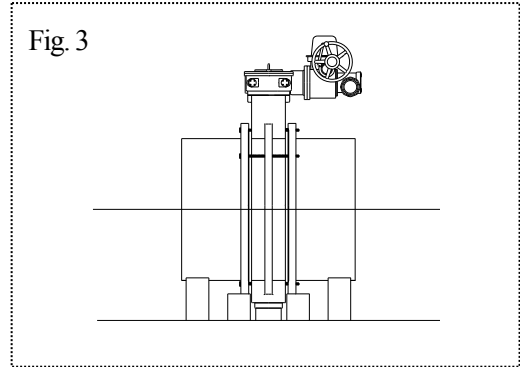


Fig. 3

- Connect the valve loosely to one of the short pipes. Match the bolt hole of the short pipe with that of the valve, and put four stud bolts into the inserted metal parts (part 1a), then tighten nuts lightly by hand.

- Set the second short pipe with the valve. Using the nylon sling, loop the short pipe and tighten nuts using the same procedure as step 4).

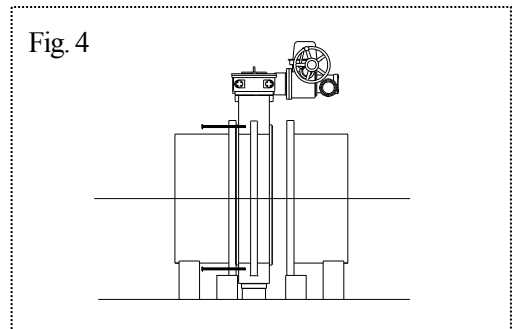


Fig. 4

- Put the bolts through the full bolt holes and plumb in. Move the pipe gradually to match holes one another, and set nuts. \*Tighten the bolt-nuts of the valve and the flange in the full bolt holes at first, and then tighten the bolt-nuts on the inserted metal parts.

- Tighten up the nuts according the tightening torque values listed below  
Tighten the nuts in a diagonal manner.  
All penetrated bolts should be tightened first, and the inserted metal parts should be tightened after.

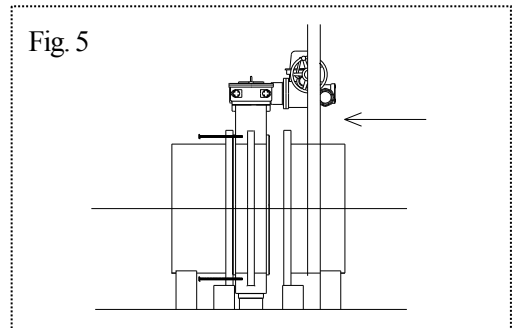


Fig. 5

Nominal Size mm (inch)	Bolt tightening torque kgf·cm (N·m)
700-800 (28"-32")	1,300 (130)
900, 1000 (36", 40")	1,700 (170)
1100 (40")	2,000 (200)
1200 (48")	2,200 (220)

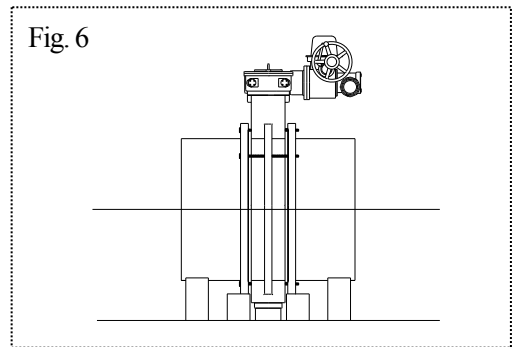
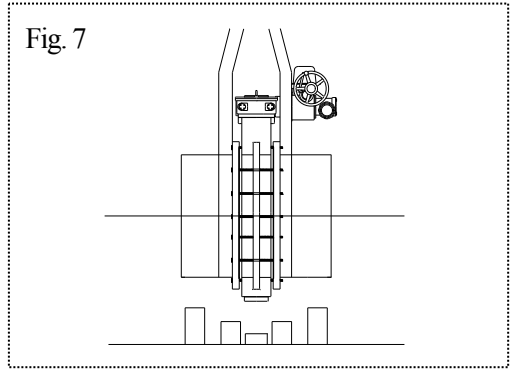
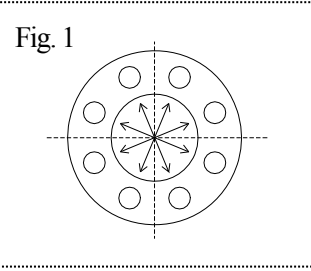


Fig. 6

- 8) Using the nylon sling, lift up around the flange sides of both short pipes to set in the required position.  
Hook a wire through the eyebolt in order to stabilize the valve.



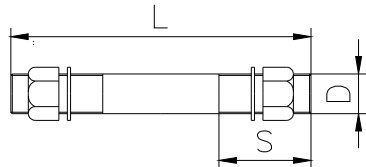
**Caution** - Tighten the bolts and nuts gradually with a torque wrench to the specified torque level in a diagonal manner.



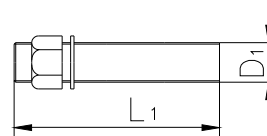
**JIS Standard (10K)**

Nominal Size		Bolt A			Bolt B		Quantity		
mm	(inch)	D	L	S	D1	L1	Bolt A	Bolt B	Nut & Washer
700	(28")	M30	more than 350mm (13.78")	75mm (2.95")	M30	110mm (4.33")	20	8	48
800	(32")		more than 390mm (15.35")						
900	(36")		more than 400mm (15.75")	80mm (3.15")			24		
1000	(40")	M36	more than 470mm (18.50")	85mm (3.35")	M36	180mm (7.09")		28	64
1100	(44")		more than 520mm (20.47")	100mm (3.94")					
1200	(48")		more than 570mm (22.44")						

Bolt A



Bolt B



**(8) Support setting procedure**



- Do not subject the valve to pump vibrations. (The valve may be damaged.)

Caution



- Valves must be supported. (The valve may be damaged by the weight of the actuator if it is unsupported.)

Necessary items

● Spanner wrench

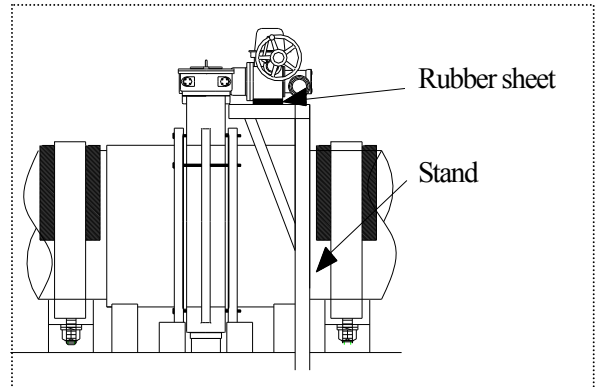
● U-type clamp (with bolt)

● Rubber sheet

Horizontal installation

Set the stand under the valve.

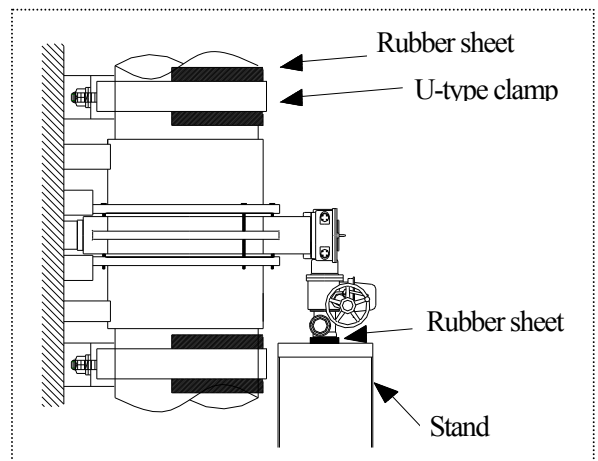
Spread the rubber sheet on the pipe and secure pipe with U-type clamp.



Vertical installation

Spread the rubber sheet under the actuator, and fix it with the stand.

Spread the rubber sheet on the pipe and secure pipe with U-type clamp.



**(9) Electric wiring procedure**



Warning

- Do not touch any parts on actuator circuit board or terminal block or connect or disconnect wires while the actuator is energized. (Any such practice may result in an electric shock or equipment damage.)
- Do not operate the manual override while the actuator is energized.



- Keep hands and other extremities away from moving parts under all circumstances. (Any such practice may get your hand, arm, or other part of your body caught.)
- Be sure to establish a ground. (A defective ground may result in an electrical shock, fire, or other incident.)
- At the time of adjustment or inspection, ensure that your hands are free of water and oil. (Any such substance on your hands may result in an electric shock or equipment damage.)



Caution

- Do not exceed the rated capacity of limit switch contacts. If you wish to apply very small load (1-100 mA, 5-30 V), consult our service station nearest to you.
- Do not connect two or more motor-driven valves in series. Also, install a switch (or a relay contact) for each motor-driven valve.
- Do not use the product near high-voltage wire, inverter, or any other equipment that produces electrical noise or magnetism. (The presence of such nearby may cause malfunction or breakdown.)
- Check the integrity of wiring insulation before connecting to the actuator. (Failure to observe this precaution may result in wire damage.)
- Ensure all covers are tightly fastened prior to operation. (Insufficient fastening may allow rainwater, dust, or dirt to come in, resulting in breakdown.)
- When connecting wires, be sure to observe the connection diagram and make the connections correctly. Moreover, after wiring, ensure that the connections are securely made before turning on the power. (Failure to take this precaution may cause malfunction or breakdown.)
- Each cover part is sealed with an O-ring. When laying wiring or in similar cases, where the cover is removed and replaced, ensure that the O-ring is installed in the specified location and securely sealed. (Insufficient sealing may cause the actuator to be penetrated by rainwater or other foreign matter, resulting in electric shock or breakdown.)
- If you wish to use the product outdoors or in any other location exposed to rainwater or other forms of moisture, protect the wiring conduit of the actuator against ingress of rainwater and all other wetness. (Failure to take such a precaution may cause the actuator to be penetrated by rainwater or something similar, resulting in electric shock or breakdown.)
- In the case of malodor, overheating, or smoking, turn off the power supply immediately. (Continued use despite an abnormality present may result in a fire. If you detect any abnormalities, be sure to consult the dealership where you bought the product or our service station nearest your premises and ask them to perform an inspection.)

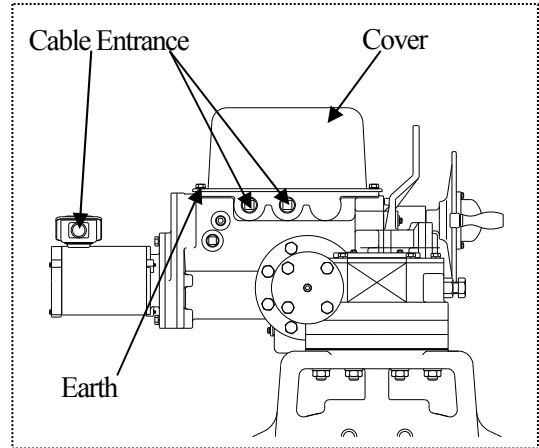
Necessary items

- Screwdriver (+)
- Wire stripper
- Crimp-style terminal
- Terminal crimping tool
- Connector
- Spanner wrench

\* Check supply voltage indicated on the actuator and make sure it is the same as the voltage applied prior to completion of wiring. (Wiring at different voltages will cause problems in AV valves.)

Procedure

- 1) Loosen the screws with a spanner wrench and remove the cover from the actuator.
- 2) Remove the plug of cable entrance with a spanner wrench.
- 3) Install the connector into the cable entrance.
- 4) Draw a cable through the connector.
- 5) Strip the cable with a wire stripper.
- 6) Install a Crimp-style terminal on the lead wire with a terminal-crimping tool.
- 7) Connect the terminal board with a screwdriver in accordance page 8.
  - \* Tighten the screws. (If not electric arcing or sparks may occur.)
- 8) Tighten the connector. (If not electric arcing or sparks may occur.)
- 9) Tighten above screws with a spanner wrench to fix and install the cover of the actuator.
- 10) Connect the earth wire to a good ground.



(10) Operating procedure

- Warning**
- Do not touch any parts on actuator circuit board or terminal block or connect or disconnect wires while the actuator is energized. (Any such practice may result in an electric shock or equipment damage.)
  - Do not operate the manual override while the actuator is energized.
  - Keep hands and other extremities away from moving parts under all circumstances. (Any such practice may get your hand, arm, or other part of your body caught.)
  - Be sure to establish a ground. (A defective ground may result in an electrical shock, fire, or other incident.)
  - At the time of adjustment or inspection, ensure that your hands are free of water and oil. (Any such substance on your hands may result in an electric shock or equipment damage.)
- Caution**
- Do not connect two or more motor-driven valves in series. Also, install a switch (or a relay contact) for each motor-driven valve.
  - Do not use the product near a high-voltage wire, inverter or other equipment that produces electrical noise or magnetism. (The presence of such nearby may cause malfunction or breakdown.)
  - Check the integrity of wiring insulation before connecting to the actuator. (Failure to observe this precaution may result in wire damage.)
  - Ensure all covers are tightly fastened prior to operation. (Insufficient fastening may allow rainwater, dust, or dirt to come in, resulting in breakdown.)
  - When connecting wires, be sure to observe the connection diagram and make the connections correctly. Moreover, after wiring, ensure that the connections are securely made before turning on the power. (Failure to take this precaution may cause malfunction or breakdown.)



## Manual operating procedure



- Turn off the power source.

(If the power source is turned on during the manual operation, you may be injured.)

Necessary items

- Spanner wrench

### Procedure

- 1) Push the de-clutch lever toward the manual position. In the event that the lever cannot be turned smoothly, push it while turning the manual handle right and left.

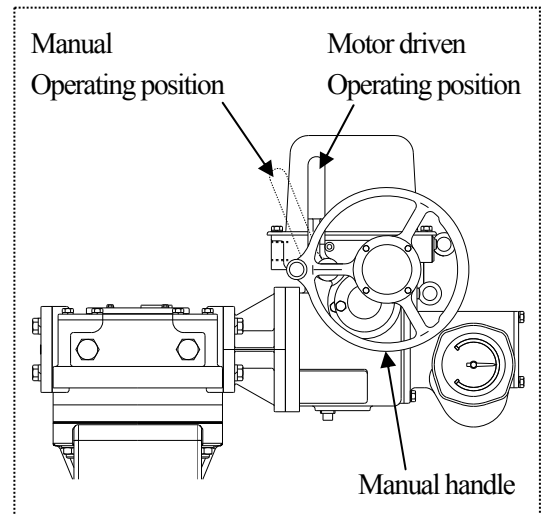
\*Do not turn the handle forcibly when the manual handle is fully turned clockwise or counterclockwise.  
(It could potentially damage the actuator)

- 2) Turn the manual handle while watching the valve travel indicator.

Right turn (clock wise) → Shut direction

Left turn (counter clock wise) → Open direction

- 3) Pull the de-clutch lever back to the motor-driven position.



Warning

- Do not turn the change lever to the motor driven operating position (The actuator may be damaged.)

## Motor-driven operating procedure



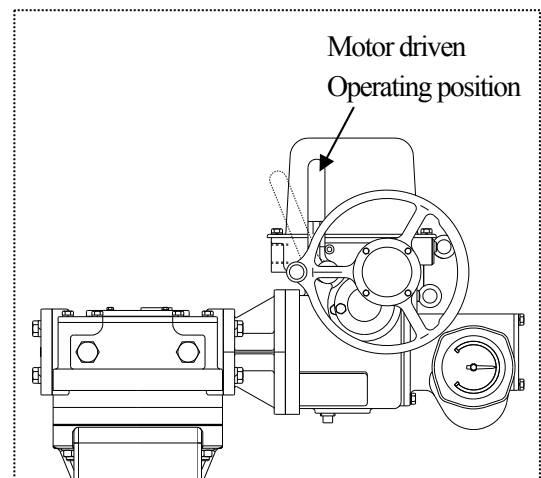
Warning

- Do not leave the actuator cover.




(Coming into contact with a terminal in this state can give you an electric shock.)

### Procedure

- 1) Turn on the power source.
- 2) Set the external switch to “Open” or “Shut”, and check to ensure that the valve indicating direction and the operating direction agree with each other. If they are not matching, check the wiring diagram on page 8 and repeat from item 1).
- 3) Turn off the power source when the actuator reaches full open or full close.



**(11) Limit switch adjustment**

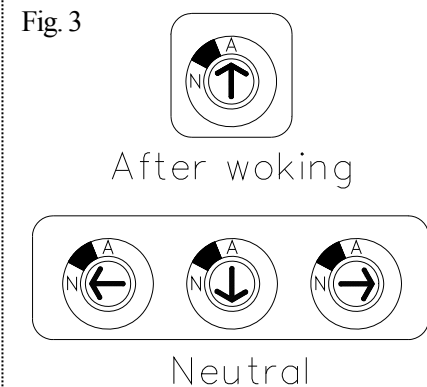
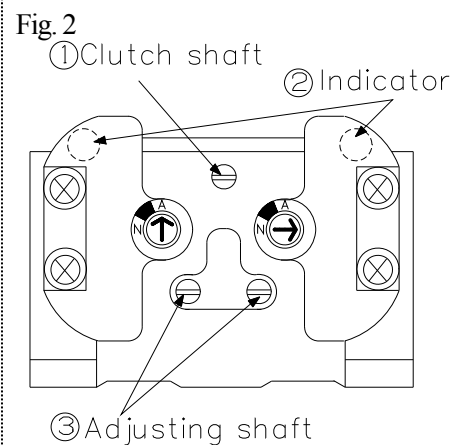
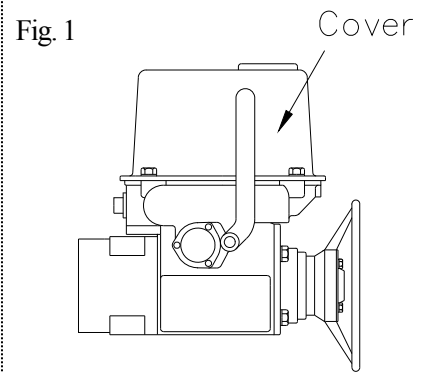
-  - Shut down the power on the equipment before connecting wires. There are risks of electrical shock depending on the level of operating voltage.
-  - Be sure that the cover is put on during operation.
-  - If you plan to operate limit switches at 1mA-100mA or 5-30V, consult your nearest Asahi dealer.

Necessary items

- Allen wrench
- Spanner wrench



Procedure

- 1) Turn off the power source, and discharge fluid from pipes completely. Loosen screws with a hexagon wrench, and remove the cover of the actuator.
- 2) Manually operate (refer to page 15) the valve to the desired valve travel limit (open or shut).
- 3) Insert the specialized handle into the clutch shaft, and push to turn 30° so that the clutch shaft is down.  
\*If step 4) is performed without doing step 3) first the limit switch may be damaged.
- 4) Choose switch “O” to adjust the fully opened position or “S” to adjust fully shut position.
- 5) Insert the specialized handle into the nearest adjusting shaft [3] (fig.2), and turn it, noting which direction the arrow in the dial labeled [N] and [A] moves.
- 6) Turn the adjusting shaft until the arrow indicates position [A] and remove the handle.
- 7) Insert the specialized handle into the clutch shaft, turn the handle and set the clutch stem back to the original position.
- 8) Check whether the limit switch is set properly by manually operating the valve. (Refer to page15)
- 9) Tighten the screws of the actuator cover with a spanner wrench.
- 10) Fully close the valve electrically (refer to page 15), and check to ensure that the travel indicator shows the fully closed position ‘O’.  
\*If the travel indicator shows an incorrect position, loosen and remove the cover of the actuator with a spanner wrench. Remove the switch cover, take the indicator out and adjust the indicator so that it shows the ‘O’ position.



There are four states of limit switch as shown above. The switch is activated when the indicator shows position [A].

## (12) Inspection items

  - Perform periodic maintenance. (Leakage may develop due to temperature changes or over periods of prolonged storage, rest or operation.)

Portion to be inspected	Inspection item
Actuator	<ul style="list-style-type: none"> <li>- Check for the existence of rust, peeling of paint, and dirt in the inspection hole of valve travel indicator.</li> <li>- Check that all fasteners are properly tightened.</li> <li>- Check that wiring insulation has a resistance value of 100MΩ or more.</li> <li>- Check for the existence of rust and corrosion around limit switches, and for any broken connections.</li> <li>- Check for the existence of rust and corrosion of terminal board, and for any broken connections.</li> <li>- Check for abnormalities in opening and closing operation sounds.</li> <li>- Check for smooth operation of manual handle.</li> </ul> <p>* It is unnecessary to supply oil to this actuator.</p>
Valve	<ul style="list-style-type: none"> <li>- Check for the existence of scratches, cracks, deformation, and discoloring.</li> <li>- Check for the existence of leakage from the valve to the outside of the pipeline.</li> <li>- Check for the existence of leakage through the disc and seat when the valve is fully closed.</li> </ul>

## (13) Troubleshooting

Problem	Cause	Treatment
The handle cannot be turned when the valve is operated manually.	The valve has already been opened or closed fully.	Turn the handle in the reverse direction. (Refer to page 15)
	The actuator is energized and operating in the opposite direction of hand wheel rotation.	Turn off the power source.
	Foreign matter is in the valve.	Remove the valve from the pipe and remove foreign matter. (Refer to page 9)
	The operating torque of the valve is increased by stress caused by the piping installation.	Remove the valve from the pipe and adjust the installation. (Refer to page 9)
The valve will not actuate electrically.	The power source of the control panel is turned off.	Turn on the power source.
	The operating torque of the valve is increased by stress caused by the piping installation.	Remove the valve from the pipe and adjust the installation. (Refer to page 9)
	The operating torque is increased by the influence of the process fluid. (Temperature, chemical swelling, pressure)	Check service conditions. (Refer to page 6)
	The actuator is disconnected.	Check the actuator wiring. (Refer to page 8)
	Open and close are energized simultaneously.	

Fluid leaks from the valve even when the valve is fully closed.	Foreign matter is in the valve.	Discharge the foreign matter from the valve by operating and closing the valve several times.
	The connecting bolts are over tightened or tightened unevenly.	Adjust and retighten. (Refer to page 9)
	The limit switches are not properly adjusted.	Adjust limit switches. (Refer to page 17)
	The voltage supplied is too low.	Check the supply voltage. (Refer to page 8)
The actuator operates, but the valve is not opening or closing.	The stem or joint is broken.	Replace the stem or joint.
An unusual output signal is given.	Limit switch is broken.	Replace the limit switch.
	Limit switch cams are improperly positioned.	Adjust the limit switch cams correctly.

## (14) Handling of residual and waste materials



Warning

- Make sure to consult a waste treatment dealer for recommendations on the proper disposal of plastic valves. (Poisonous gas is generated when the valve is burned improperly.)

**PDCPD Butterfly Valve  
Electric Actuated Type S  
700-1200mm (28"-48")**

[Automatic Valve]

**ASAHI YUKIZAI CORPORATION**

Distributor

<http://www.asahi-yukizai.co.jp/en/>

Information in this manual is subject to change without notice.

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