SEKISUI

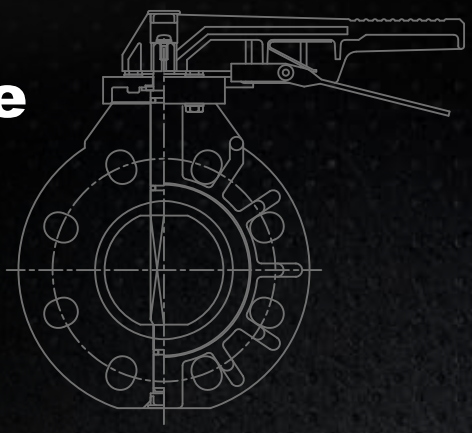
Printed 2020.3

ESLON VALVES CATALOGUE

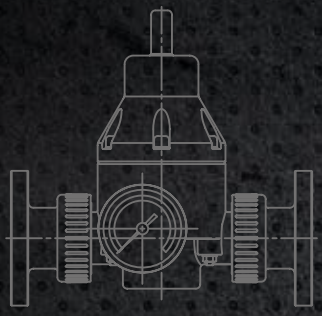
Manual Operation Valves / Automatic Operation Valves

ESLON VALVE Catalogue

Manual Operation and Automatic Operation Valves



Contents



Manual Operation Valves

Automatic Operation Valves

ESLON VALVE Product list

Manual Operation Valves

DIAPHRAGM VALVE ▶▶▶▶P13

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
Diaphragm Material	EPDM/FKM/PTFE				EPDM/FKM/PTFE		EPDM/FKM/PTFE		EPDM/FKM/PTFE
O-ring Material	—				EPDM/FKM		EPDM/FKM		EPDM/FKM
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	—	—	—	—	—
80A	●	●	●	●	—	—	—	—	—
100A	●	●	●	●	—	—	—	—	—
125A	●	—	●	●	—	—	—	—	—
150A	●	—	●	●	—	—	—	—	—
200A	●	—	●	●	—	—	—	—	—
250A	●	—	●	●	—	—	—	—	—

※Diaphragm Material of FKM:15～150A

DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE ▶▶▶▶P17

Connection	TS Socket × Flange		TS Socket × Union		Flange
Body Material	PVC	HT·CPVC	PVC	HT·CPVC	PVDF
Diaphragm Material	EPDM※/PTFE ※Only 20×16, 50×25, 65×40				
20A×16A	●	●	●	●	●
25A×25A	●	●	●	●	●
50A×25A	●	●	●	●	●
65A×40A	●	●	●	●	●

BALL VALVE ▶▶▶▶P19

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
O-ring Material	EPDM/FKM				EPDM/FKM		EPDM/FKM		EPDM/FKM
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	●	●	●	●	●
80A	●	●	●	●	●	●	●	●	●
100A	●	●	●	●	●	●	●	●	●

※Nominal diameter 15,32,80 can connect with 16,30,75.

Manual Operation Valves

COMPACT BALL VALVE ▶▶▶▶P23

Connection	TS Socket	Thread
O-ring Material	EPDM/FKM	EPDM/FKM
15A	●	●
20A	●	●

LOCK BALL VALVE ▶▶▶▶P24

Connection	TS Socket	Thread
O-ring Material	EPDM/FKM	EPDM/FKM
25A	●	●
32A	●	●
40A	●	●
50A	●	●

MINI BALL VALVE ▶▶▶▶P25

Connection	Male Thread 3/8,1/4,1/2	Female Thread 3/8,1/4	Hose	Straight	Female Thread 1/2	TS Socket
BallSeat・O-ring Material	EPDM/FKM	EPDM/FKM	EPDM/FKM	EPDM/FKM	EPDM/FKM	EPDM/FKM
6A	●	●	●	●	—	—
13A	—	—	—	—	—	●
15A	—	—	—	—	●	●

3-WAY BALL VALVE ▶▶▶▶P27

Connection	Flange	TS Socket	Thread
Body Material	PVC		
O-ring Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
40A	●	●	●
50A	●	●	●

BUTTERFLY VALVE GEAR TYPE ▶▶▶▶P31

Connection	Wafer		
Body × Disc Material	PVC×PP	PP×PP	PVDF×PVDF
Seat ring・O-ring Material	EPDM/FKM		
Stem Material	SUS420J2/SUS316		
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●
250A	●	●	●
300A	●	●	●
350A	●	●	●
400A	●	●	●
450A	●	●	●
500A	●	●	●
600A	●	●	●

BUTTERFLY VALVE LEVER TYPE ▶▶▶▶P29

Connection	Wafer		
Body × Disc Material	PVC×PP	PP×PP	PVDF×PVDF
Seat ring・O-ring Material	EPDM/FKM		
Stem Material	SUS420J2/SUS316		
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●

CHECK VALVE SWING TYPE ▶▶▶▶P33

Connection	Flange		
Body Material	PVC	PP	PVDF
Gasket Material	EPDM/PTFE		
O-ring Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●

ESLON VALVE Product list

Manual Operation Valves

CHECK VALVE BALL TYPE ▶▶▶▶P35

Connection	Flange	TS Socket	Thread
Body Material	PVC/HT·CPVC		PVC
Seat Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●

TRUE UNION CHECK VALVE BALL TYPE ▶▶▶▶P37

Connection	Flange	TS Socket	Thread	Butt Spigot
Body Material	PVC/HT/PP/PVDF	PVC/HT	PVC/PVDF	PVDF
15A	●	●	●	●
20A	●	●	●	●
25A	●	●	●	●
32A	●	●	●	●
40A	●	●	●	●
50A	●	●	●	●

CHECK VALVE LIFT TYPE ▶▶▶▶P39

Connection	Flange	TS Socket	Thread	Union TS
Body Material	PVC			
O-ring Material	EPDM/FKM			
15A	●	●	●	●
20A	●	●	●	●
25A	●	●	●	●
32A	●	●	●	●
40A	●	●	●	●
50A	●	●	●	●

GLOBE VALVE ▶▶▶▶P41

Connection	Flange	TS Socket	Thread
Body Material	PVC		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	—	●
40A	●	—	●
50A	●	—	●
65A	●	—	—
80A	●	—	—
100A	●	—	—

YP BALL VALVE ▶▶▶▶P43

Connection	Flange	TS Socket	Thread
Body Material	PVC		
O-ring Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●

RELIEF VALVE ▶▶▶▶P45

Connection	Flange	TS Socket	Thread
Body Material	PVC/PP/PVDF	PVC	PVC/PVDF
O-ring Material	EPDM/FKM		
13A	—	●	●
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●

※Nominal diameter 15,32,80 can connect with 16,30,75.

Manual Operation Valves

PRESSURE REGULATION VALVE ▶▶▶▶P48

Connection	Flange	TS Socket	Thread
Body Material	PVC/PP/PVDF	PVC	PVC/PVDF
O-ring Material	EPDM/FKM		
13A	—	●	●
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●

FOOT VALVE ▶▶▶▶P51

Connection	Flange	TS Socket	Thread
Body Material	PVC/HT		PVC
Seat Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●

STRAINER ▶▶▶▶P53

Connection	Flange	TS Socket	Thread	Union TS
Body Material	PVC			
O-ring Material	EPDM/FKM			
15A	●	●	●	●
20A	●	●	●	●
25A	●	●	●	●
32A	●	●	●	●
40A	●	●	●	●
50A	●	●	●	●
65A	●	—	—	—
80A	●	—	—	—
100A	●	—	—	—

ESLON VALVE Product list

Automatic Operation Valves

PNEUMATIC DIAPHRAGM VALVE TYPE F ▶▶▶▶P55

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
Diaphragm Material	EPDM/FKM/PTFE				EPDM/FKM/PTFE		EPDM/FKM/PTFE		EPDM/FKM/PTFE
Operation	Double action/Air to open/Air to close								
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	—	—	—	—	—
80A	●	●	●	●	—	—	—	—	—
100A	●	●	●	●	—	—	—	—	—

PNEUMATIC BALL VALVE TYPE S ▶▶▶▶P58

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
O-ring Material	EPDM/FKM				EPDM/FKM		EPDM/FKM		EPDM/FKM
Operation	Double action/Air to open/Air to close								
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	●	●	●	●	●
80A	●	●	●	●	●	●	●	●	●
100A	●	●	●	●	●	●	●	●	●

PNEUMATIC BUTTERFLY VALVE TYPE S ▶▶▶▶P61

Connection	Wafer		
Body × Disc Material	PVC×PP	PP×PP	PVDF×PVDF
Seat ring·O-ring Material	EPDM/FKM		
Stem Material	SUS420J2/SUS316		
Operation	Double action/Air to open/Air to close		
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●
250A	●	●	●
300A	●	●	●
350A	●	●	●
400A	●	●	●

AIR OPERATION VALVE ▶▶▶▶P63

Connection	TS Socket
Body Material	PVC
O-ring Material	EPDM/FKM
Operation	Double action/Air to open/Air to close
15A	●
20A	●
25A	●
32A	●
40A	●
50A	●
65A	●

Automatic Operation Valves

ELECTRIC DIAPHRAGM VALVE TYPE KS ▶▶▶▶P65

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
Diaphragm Material	EPDM/FKM/PTFE				EPDM/FKM/PTFE		EPDM/FKM/PTFE		EPDM/FKM/PTFE
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	—	—	—	—	—
80A	●	●	●	●	—	—	—	—	—
100A	●	●	●	●	—	—	—	—	—
125A	●	—	●	●	—	—	—	—	—
150A	●	—	●	●	—	—	—	—	—

ELECTRIC BALL VALVE TYPE K ▶▶▶▶P67

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
O-ring Material	EPDM/FKM				EPDM/FKM		EPDM/FKM		EPDM/FKM
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	●	●	●	●	●
80A	●	●	●	●	●	●	●	●	●
100A	●	●	●	●	●	●	●	●	●

ELECTRIC BALL VALVE TYPE N • Standard type ▶▶▶▶P69

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
O-ring Material	EPDM/FKM				EPDM/FKM		EPDM/FKM		EPDM/FKM
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●

※Nominal diameter 15,32,80 can connect with 16,30,75.

ESLON VALVE Product list

Automatic Operation Valves

ELECTRIC BALL VALVE TYPE N • High speed type ▶▶▶▶P69

Connection	Flange				TS Socket		Thread		Butt Spigot
Body Material	PVC	HT·CPVC	PP	PVDF	PVC	HT·CPVC	PVC	PVDF	PVDF
O-ring Material	EPDM/FKM				EPDM/FKM		EPDM/FKM		EPDM/FKM
15A	●	●	●	●	●	●	●	●	●
20A	●	●	●	●	●	●	●	●	●
25A	●	●	●	●	●	●	●	●	●
32A	●	●	●	●	●	●	●	●	●
40A	●	●	●	●	●	●	●	●	●
50A	●	●	●	●	●	●	●	●	●
65A	●	●	●	●	●	●	●	●	●
80A	●	●	●	●	●	●	●	●	●
100A	●	●	●	●	●	●	●	●	●

ELECTRIC 3-WAY BALL VALVE ▶▶▶▶P71

Connection	Flange	TS Socket	Thread
Body Material	PVC		
O-ring Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
40A	●	●	●
50A	●	●	●

ELECTRIC BUTTERFLY VALVE TYPE K ▶▶▶▶P73

Connection	Wafer		
Body × Disc Material	PVC×PP	PP×PP	PVDF×PVDF
O-ring Material	EPDM/FKM		
Stem Material	SUS420J2/SUS316		
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●
250A	●	●	●
300A	●	●	●

※Nominal diameter 15,32,80 can connect with 16,30,75.

Automatic Operation Valves

ELECTRIC BUTTERFLY VALVE TYPE N ▶▶▶▶P75

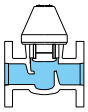
Connection	Wafer		
Body × Disc Material	PVC×PP	PP×PP	PVDF×PVDF
Seat ring · O-ring Material	EPDM/FKM		
Stem Material	SUS420J2/SUS316		
40A	●	●	●
50A	●	●	●
65A	●	●	●
80A	●	●	●
100A	●	●	●
125A	●	●	●
150A	●	●	●
200A	●	●	●
250A	●	●	●
300A	●	●	●

ELECTRIC YP BALL VALVE ▶▶▶▶P77

Connection	Flange	TS Socket	Thread
Body Material	PVC		
O-ring Material	EPDM/FKM		
15A	●	●	●
20A	●	●	●
25A	●	●	●
32A	●	●	●
40A	●	●	●
50A	●	●	●

ESLON VALVE
Basic knowledge of ESLON VALVE

Features of main ESLON valve

Item	Appearance	Flow path	Size	Pressure drop	Controllability	Opening Closing speed	Against Slurry	Pneumatic Type	Electric Type
Diaphragm Valve			15-250	○	○	△	○	possible (15-100A)	possible (15-150A)
Ball Valve			6-100	◎	△	◎	–	possible (15-100A)	possible (15-100A)
Butterfly Valve			40-600	○	△	◎	△	possible (40-400A)	possible (40-300A)
Gate Valve			40-200	○	○	△	○	–	–
Globe Valve			15-100	△	△	△	○	–	–
Check Valve Swing Type			15-200	○	–	◎	–	–	–
Check Valve Ball Type			15-100	△	–	◎	–	–	–

Automatic Operation Valve [Pneumatic type and Electric type]

Pneumatic type Drive the piston in the actuator with air pressure to open and close the valve

- **Single acting**
  - Air to open/Normal close >>> Actuate from open to close by air supply
  - Air to close/Normal open >>> Actuate from close to open by air supply
- **Double acting** >>> Open and close valves by switching 2 different air supply ports and exhaust port

Electric type Drive the motor in the actuator with electric power to open and close the valve

Specifications

Rinsed specification Clean assembled valve immersing in pure water (Not completely oil-free)

Oil Free specification Clean all valve parts by pure water and assemble valve

Accessories for pneumatic valve

Solenoid valve	To open/close the valve with on/off power supply .
Limit switch	To output a limit signal when valve is fully opened or fully closed.
Filter regulator	To regulate the air pressure and remove dust, water and oil in air.
Speed controller	To control the open/close speed of the valve with adjusting air volume to the actuator.
Electro-pneumatic positioner	To control the opening degree the valve by current signal.
Manual override	To open / close the valve with hand.

Protection Rating

IP □ □

Second Digit : Ingress of liquids

First Digit : Ingress of solid objects

Classification of First Digit

Index	Definition
0	No protection against contact, solid particles and bodies.
1	Protection against ingress of solid objects greater than 50 mm in diameter.
2	Protection against ingress of solid objects greater than 12.5 mm in diameter.
3	Protection against ingress of solid objects greater than 2.5 mm in diameter, e.g. tip of tool, wire etc.
4	Protection against ingress of solid objects greater than 1 mm in diameter, e.g. wire & copper band.
5	Protection from powder dust ingress (prevent malfunction even under presence of powder dust).
6	Protection from total dust ingress.

Classification of Second Digit

Index	Definition
0	No protection against water.
1	Protection against vertical water drops.
2	Protected against vertically falling water drops when enclosure tilted up to 15°.
3	Protection against spray water from an angle of 60° to vertical line.
4	Protection against splash water from all directions.
5	Protection against water jets from any angle.
6	Protection against powerful water jets from any angle.
7	Protection against water dip in certain level of pressure and length of time.
8	Protection against immersion which the condition is decided between customer & manufacturer (in severe condition comparing to no.7)

Materials

■Valve body

		Operating temperature
PVC	Polyvinyl chloride	0℃~60℃
HT(CPVC)	High Temp. (chlorinated) polyvinyl chloride	0℃~90℃
PP	Polypropylene	−20℃~90℃
PVDF	Polyvinylidene fluoride	−20℃~120℃
GF-PP	Glass fiber reinforced polypropylene	−20℃~90℃

■Sealing material

EPDM	Ethylene-propylene-diene ter-polymer
FKM	Fluororubber
FKM-FB	Acid-proof fluororubber
PTFE	Polytetrafluoroethylene

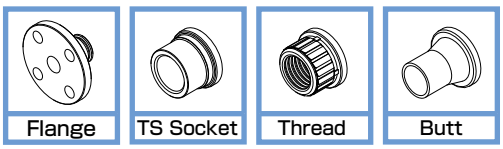

PVC


HT (JIS)


CPVC (ANSI/DIN)


PP


PVDF



JIS ANSI/ASME/ASTM DIN/ISO

Operating Temperature(℃)

	Flange Type	Union Type
PVC	0～60	0～50
HT·CPVC	0～90	0～90
PP	0～90	
PVDF	0～120	0～100

Flange Type

True Union Type
(Thread Type·TS Socket Type and Butt Spigot Type)

ESLON DIAPHRAGM VALVE

Feature

- Excellent sealing performance with optimized diaphragm design even by low handle operating torque.
- Improved diaphragm in compression set steadily prevents leakage.
- Available customized version for the applications in high temperature.
- Visual indicator at the handle top for open-close position and prevention of over tightening.
- Drip-proof and dust-proof mechanism for prevention of entering water and dust in bonnet.
- Flat at the bottom of flange and insert nuts for prevention of tumbling and for better workability in plumbing.

⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Recommended Torque for Fastening Diaphragm

·Please periodically check tightening torque of the bolts for assembling diaphragm as the bolts might be loosen by temperature variation or compression set of diaphragm. Please re-tighten the bolt up to recommended torque shown in the table below in case the bolts loosen, but be careful not to over-tighten.

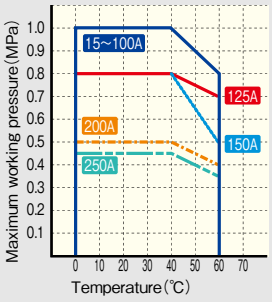
Unit:N·m{kgf-cm}

Size(A)	15～32	40	50	65	80	100	125	150	200	250
Recommended Torque	8 {80}	20 {200}	25 {250}	30 {300}	35 {350}	50 {500}	60 {600}	70 {700}	80 {800}	100 {1000}

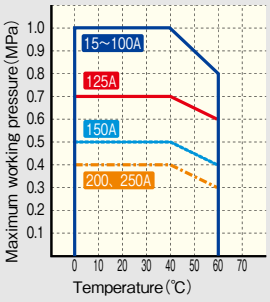
Maximum Working Pressure - Temperature Rating

Body material : PVC

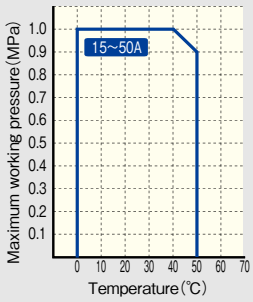
Diaphragm : EPDM・FKM
Connection : Flanged



Diaphragm : PTFE
Connection : Flanged

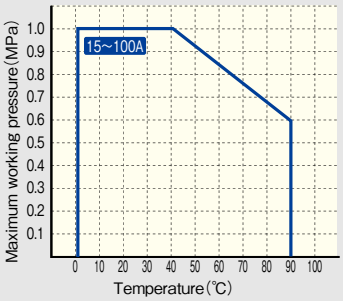


Diaphragm : EPDM・FKM・PTFE
Connection : TS Socket・Threaded

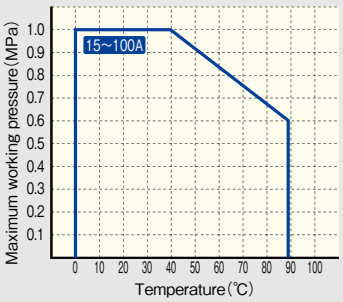


Body material : HT・CPVC

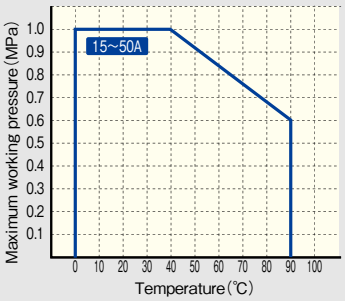
Diaphragm : EPDM・FKM
Connection : Flanged



Diaphragm : PTFE
Connection : Flanged

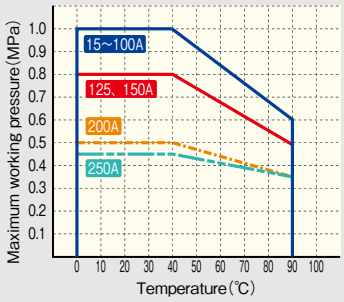


Diaphragm : EPDM・FKM・PTFE
Connection : TS Socket

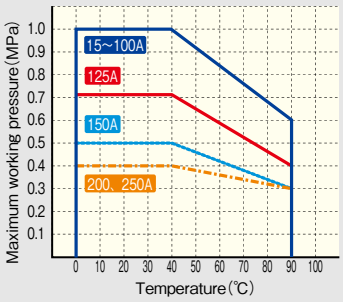


Body material : PP

Diaphragm : EPDM・FKM
Connection : Flanged

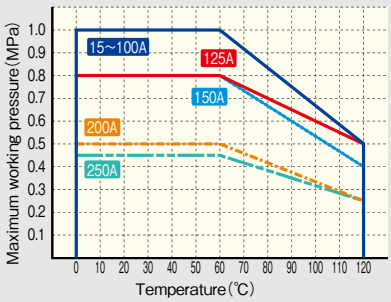


Diaphragm : PTFE
Connection : Flanged

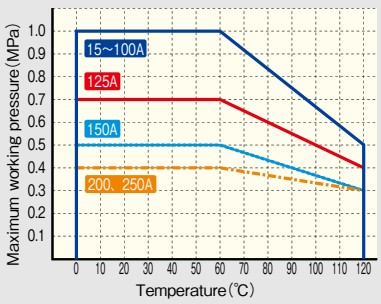


Body material : PVDF

Diaphragm : EPDM・FKM
Connection : Flanged



Diaphragm : PTFE
Connection : Flanged



Diaphragm : EPDM・FKM・PTFE
Connection : Butt Spigot・Threaded

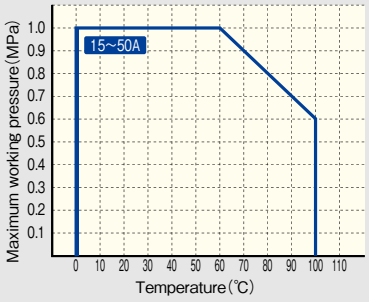
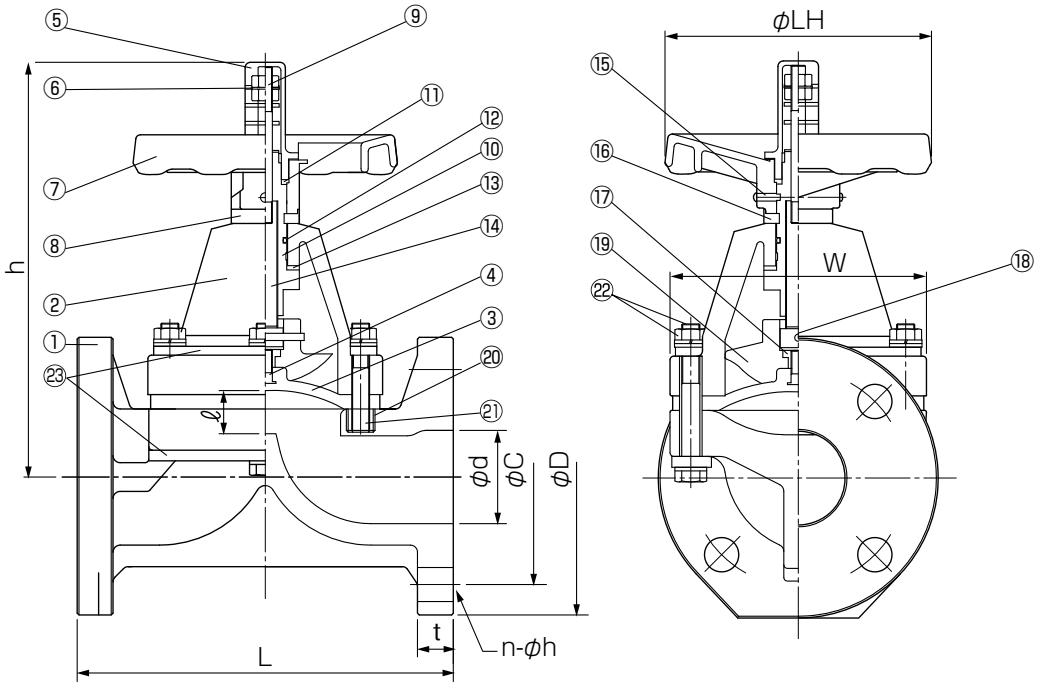


Figure (Flange Type)



Parts List

No.	Part Name	Q'TY	Material／Color
1	Body	1	Body／Bonnet ●PVC／PVC ●HT／HT(JIS:Brown) ●CPVC／CPVC (ANSI·DIN:Gray) ●PP／PP ●PVDF／GFPP ●PVDF／PVDF *3
2	Bonnet	1	
3	Diaphragm	1	● EPDM ● FKM ● PTFE+EPDM ● PTFE+PVDF+EPDM
4	Diaphragm Stud Bolt	1	SUS304 *1
5	Indicator Cover	1	PC
6	Indicator	1	SUS304
7	Handle	1	ABS
8	Collar	1	PE
9	Indicator Stud Bolt	1	SUS304
10	Stem Sleeve	1	C3604

No.	Part Name	Q'TY	Material／Color
11	Stem Packing	1	NBR
12	O-Ring	1	NBR
13	Thrust Washer	1	(15～80A)PTFE
	Thrust Bearing	1	(100～250A)SUJ
14	Stem Spindle	1	C3604
15	Retaining Screw	2	SUS304(32～250A)
16	Retaining Ring	1	(～100A)PP,(125～150A)PVC
17	Connecting Nut	1	C3604 *1
18	Pin	1	SUS304 *1
19	Compressor	1	(15～150A)GF-PP、(200,250A)FC200
20	Insert Nut	-	C3604(PVDF15-100A:SUS304)
21	Stud Bolt	-	SUS304
22	Hexagonal Bolt、Nut	-	SUS304
23	Reinforcing Plate *2	1	(15～50、200、250A)SUS304 (65～150A)SS400 Epoxy Resin Coated

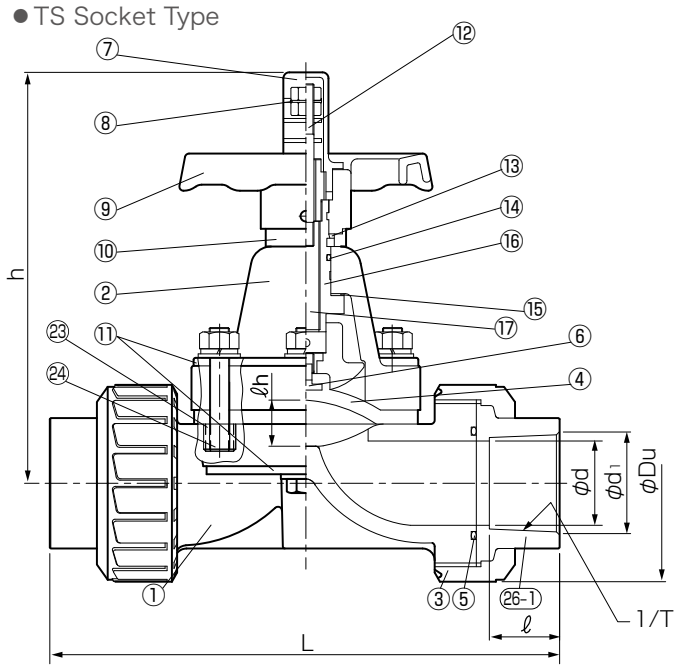
*1 Titanium Palladium is available on request.
*2 Applied to PP, HT, CPVC, and PVDF
*3 15～150A Only

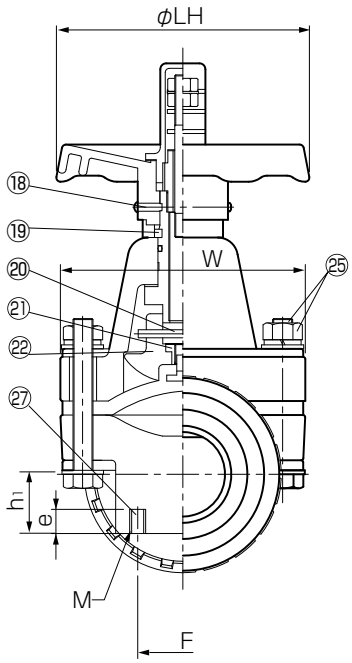
Size

Size		ϕd	L	h	ϕLH	W	ℓ	FLANGE												Weight(kg/unit)			
								JIS10K				ANSI				DIN							
A	B							ϕD	ϕC	n-ϕh	t	ϕD	ϕC	n-ϕh	t	ϕD	ϕC	n-ϕh	t	PVC	HT (CPVC)	PP	PVDF
15	1/2	16	110	122	80	76	10	95	70	4-15	14	90	60.5	4-16	11	95	65	4-14	14	0.9	1.1	0.8	1.1
20	3/4	20	120	134	80	82	12	100	75	4-15	14	100	70	4-16	13	105	75	4-14	14	1.0	1.3	1.0	1.3
25	1	25	130	145	80	90	15	125	90	4-19	14	110	79.5	4-16	14	115	85	4-14	14	1.4	1.7	1.3	1.7
32	1 1/4	32	142	145	80	90	15	135	100	4-19	16	117	89	4-16	15.7	140	100	4-18	15	1.7	1.8	1.6	2.1
40	1 1/2	41	180	205	125	122	20	140	105	4-19	16	127	98.5	4-16	17	150	110	4-18	16	2.6	3.3	2.5	3.4
50	2	52	210	233	148	142	27	155	120	4-19	20	155	120.5	4-20	19	165	125	4-18	18	3.6	4.5	3.4	4.8
65	2 1/2	67	250	291	210	170	36	175	140	4-19	22	175	139.5	4-20	22	185	145	4-18	18	6.2	7.7	5.9	8.4
80	3	80	280	322	210	202	37	185	150	8-19	22	190	152.5	4-20	22	200	160	8-18	20	8.2	9.6	7.9	11.2
100	4	100	340	392	260	255	61	210	175	8-19	24	230	190.5	8-20	24	220	180	8-18	20	13.8	18.3	15.4	21.1
125	5	125	410	435	350	320	61	250	210	8-23	24	254	216	8-23	24	250	210	8-18	22	21.8	–	20.0	26.0
150	6	150	480	490	350	375	70	280	240	8-23	24	280	241.5	8-23	25	285	240	8-22	22	26.3	–	25.5	36.0
200	8	198	570	632	410	416	96	330	290	12-23	29	343	298.5	8-23	28	340	295	8-22	29	51.0	–	44.0	61.0
250	10	248	680	780	555	540	132	400	355	12-25	31	406	362	12-25	31	395	350	12-22	26	93.0	–	77.0	108.0

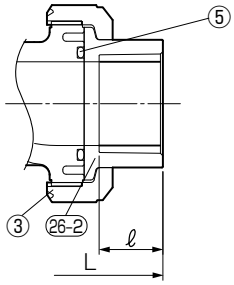
Figure (TS Socket Type・Thread Type・Butt Type)

● TS Socket Type

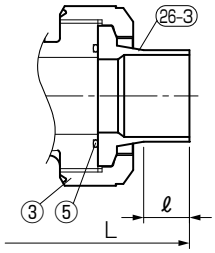




● Thread Type



● Butt Type



Parts List

No.	Part Name	Q'TY	Material／Color	No.	Part Name	Q'TY	Material／Color
1	Body	1	Body／Bonnet ● PVC／PVC ● HT／HT (JIS : Brown) ● CPVC／CPVC (ANSI·DIN : Gray) ● PVDF／GFPP ● PVDF／PVDF	13	Stem Packing	1	NBR
2	Bonnet	1		14	O-Ring	1	NBR
3	Union Nut	2		15	Thrust Washer	1	PTFE
4	Diaphragm	1	● EPDM ● FKM ● PTFE+EPDM ● PTFE+PVDF+EPDM	16	Stem Sleeve	1	C3604
5	O-Ring	2	● EPDM ● FKM	17	Stem Spindle	1	C3604
6	Diaphragm Stud Bolt	1	SUS304	18	Retaining Screw	2	SUS304 (32～50A)
7	Indicator Cover	1	PC	19	Retaining Ring	1	PP
8	Indicator	1	SUS304	20	Pin	1	SUS304 *1
9	Handle	1	ABS	21	Connecting Nut	1	C3604 *1
10	Collar	1	PE	22	Compressor	1	GF-PP
11	Reinforcing Plate*2	1	SUS304	23	Insert Nut	-	C3604
12	Indicator Stud Bolt	1	SUS304	24	Stud Bolt	-	SUS304
				25	Hexagonal Bolt、Nut	-	SUS304
				26-1	TS Socket	2	● PVC ● HT ● CPVC
				26-2	Threaded socket	2	●PVC ●PVDF
				26-3	Butt Spigot Type	2	●PP ●PVDF ●PE
				26-4	Socket welding	2	PP
				27	Fixing Insert Nut	2	C3604

*1 Titanium Palladium is available on request. *2 Applied to PP, HT, CPVC, and PVDF

Size

Size A	Size B	φ d	h	h1	φ LH	W	φ Du	ℓ h	Fixing Insert Nut X	Fixing Insert Nut Mxe	Weight(kg/unit) PVC Socket	PVC Thread	HT,CPVC Socket	PVDF Thread	PVDF Spigot
15	1/2	15	123	15	80	76	49	10	25	M6x12	0.7	0.7	0.8	0.9	0.9
20	3/4	20	134	18	80	82	59	12	25	M6x12	0.8	0.8	1.0	1.0	1.0
25	1	25	146	23	80	90	67	15	25	M6x12	1.1	1.1	1.2	1.4	1.4
32	1 1/4	31	146	23	80	90	81	15	25	M6x12	1.2	1.2	1.3	1.6	1.5
40	1 1/2	40	209	32	125	122	98	20	45	M8x12	2.7	2.7	3.4	3.7	3.7
50	2	50	234	37	148	148	120	27	45	M8x12	3.6	3.6	4.3	5.0	5.0

Size A	Size B	TS Socket JIS L	JIS φd1	JIS 1/T	JIS ℓ	ASTM L	ASTM φd1	ASTM 1/T	ASTM ℓ	DIN L	DIN φd1	DIN 1/T	DIN ℓ
15	1/2	144	22.3	1/37	22	137	21.54	1/72	22.22	126	20.3	1/65	16
20	3/4	172	26.3	1/42	25	158	26.87	1/85	25.4	146	25.3	1/80	19
25	1	187	32.3	1/43	29	177	33.65	1/75	28.58	165	32.3	1/95	22
32	1 1/4	210	38.4	1/37	32	190	42.42	1/84	31.75	179	40.3	1/115	26
40	1 1/2	262	48.5	1/38	35	258	48.56	1/78	34.93	247	50.3	1/140	31
50	2	298	60.6	1/34	38	283	60.63	1/83	38.1	284	63.3	1/175	38

Size A	Size B	Thread JIS(Rc) PVC L	PVC ℓ	PVDF L	PVDF ℓ	ANSI(NPT) PVC,PVDF L	ANSI(NPT) PVC,PVDF ℓ	DIN(Rp) PVC,PVDF L	DIN(Rp) PVC,PVDF ℓ	Butt Spigot DIN PP,PVDF L	PP,PVDF ℓ	DIN PE L	PE ℓ	Socket welding DIN PP L	PP ℓ
15	1/2	133	18	134	20	133	18	133	18	176	30	246	65	137	12
20	3/4	157	18	157	22	157	18	157	18	189	24	259	65	153	13
25	1	173	23	180	25	173	23	173	23	203	24	283	70	171	14.5
32	1 1/4	188	23	191	25	188	23	188	23	210	25	301	75	183	18
40	1 1/2	248	25	254	28	248	25	248	25	272	24	376	80	245	16
50	2	280	30	290	30	280	30	280	30	306	28	419	90	278	20

JIS ISO※

※Butt spigot type only

Operating Temperature(℃)

PVC	0～50
HT	0～90
PVDF	0～120

Flange Type

Union Type

ESLON DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE

Feature

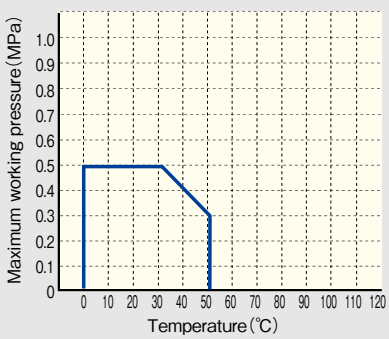
- Uniquely designed compact diaphragm valve with branch flow channel.
- Keep water quality by little obstructed design in flow path.
- Enable optional branch piping and no pressure loss in main pipe.
- Easier pressure control in reverse-turn piping system.

⚠ Important Notes

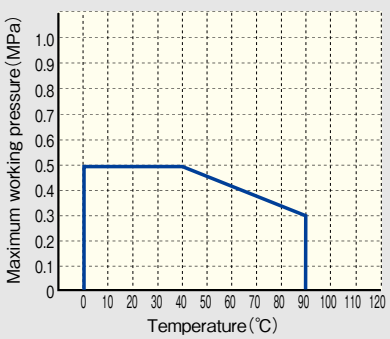
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC



Body material : HT



Body material : PVDF

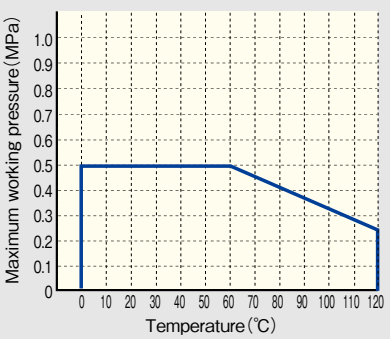
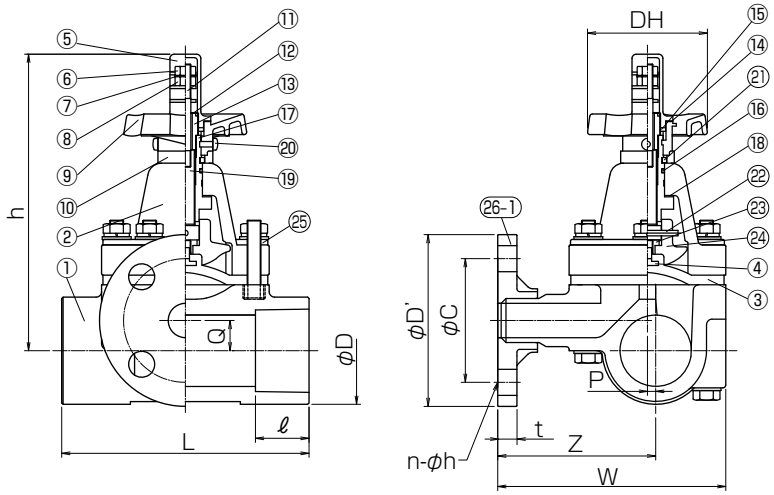
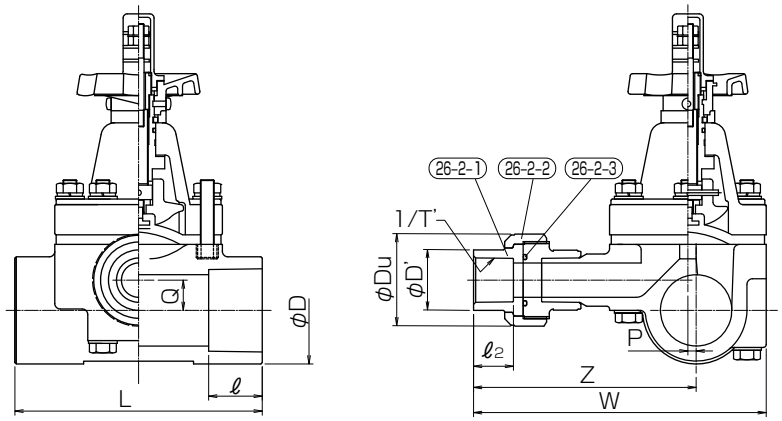


Figure (TS Socket Type)

● Flange Type



● Union Type



Parts List

No.	Part Name	Q'TY	Material
1	Body	1	Body/Bonnet ● PVC/PVC ● HT/HT
2	Bonnet	1	
3	Diaphragm	1	●EPDM (20×16,50×25,65×40) ●PTFE+EPDM
4	Diaphragm Stud Bolt	1	SUS304
5	Indicator Cover	1	PC
6	Lock Nut	1	SUS304
7	Washer	1	SUS304
8	Stopper Nut	1	SUS304
9	Handle	1	ABS
10	Collar	1	PE
11	Indicator Stud Bolt	1	SUS304
12	Stopper Washer	1	POM
13	Sleeve Head	1	C3604
14	Handle Sticker	1	PVC
15	Stem Packing	1	NBR
16	O-Ring	1	NBR
17	Stem Sleeve	1	C3604
18	Thrust Washer	1	PTFE
19	Stem Spindle	1	C3604
20	Retaining Screw	2	SUS304
21	Retaining Ring	1	PP
22	Pin	1	SUS304
23	Connecting Nut	1	C3604
24	Compressor	1	GF-PP
25	Reinforcing Plate*1	1	SUS304
26-1	Flange	1	● PVC ● HT
26-2-1	TS Socket	1	
26-2-2	Union Nut	1	
26-2-3	O-Ring	1	● EPDM ● FKM

*1 Applied to HT
*For PVDF parts list,please contact us.

Size

TS Socket × Flange

Unit : mm

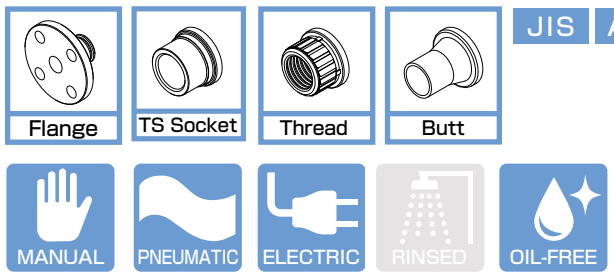
Size A	L	h	DH	P	W	Q	Z	Flange (JIS 10K)				TS Socket		Weight(kg/Unit)	
								ϕ D'	ϕ C	n-ϕh	t	ϕ D	ℓ	PVC	HT
20×16	120	129	80	1.5	119	8	91	95	70	4-15	14	35	25	0.7	0.8
25×25	120	154	80	3	142	8	100	125	90	4-19	14	44	29	1.1	1.2
50×25	180	221	90	6	166	22	115	125	90	4-19	14	77	30	2.5	2.8
65×40	240	265	148	6	203	30	140	140	105	4-19	16	96	61	3.8	4.3

TS Socket × True Union with TS Socket

Unit : mm

Size A	L	h	DH	P	W	Q	Z	TS Socket		True Union Socket			Weight(kg/Unit)	
								ϕ D	ℓ	ϕ D'	ℓ2	Du	PVC	HT
20×16	120	129	80	1.5	142	8	117	35	25	30	22.2	49	0.7	0.8
25×25	120	154	80	3	187	8	144	44	29	44	28.6	67	1.1	1.2
50×25	180	221	90	6	210	22	159	77	30	44	28.6	67	2.5	2.8
65×40	240	265	148	6	257	30	197	96	61	65	35	98	3.8	4.3

· H, h, D, L, W and t dimension of PVDF type might differ from the dimension table.
· Due to assemble by welding connection for PVDF type, design and dimension might differ from the approval drawing. Please refer to the approval drawing.
· For special order, please contact us.



JIS | ANSI / ASME / ASTM | DIN / ISO

Operating Temperature(℃)

PVC	0 ~ 50	PP	− 20 ~ 80
HT·CPVC	0 ~ 90	PVDF	− 20 ~ 100

6 Colors Handle for Easy Maintenance

ESLON BALL VALVE

Feature

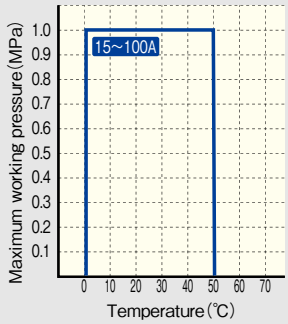
- Left hand screw on ball holder prevents screw loose and ensures perfect sealing of the valve when union nut is loosened.
- Full port in all sizes ensures no pressure loss at valve full opened position.
- Keep water quality by little obstructed design in flow path.
- Six colors of handle for sizes 15~50A enable easier management of application and fluid classification.

⚠ Important Notes

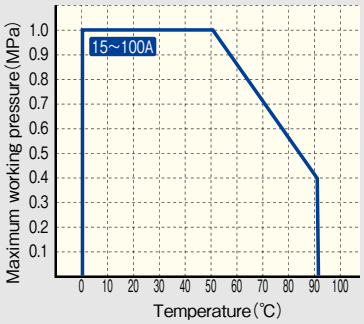
- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

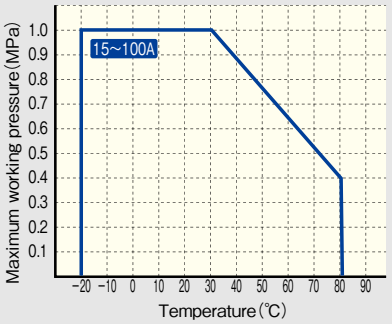
Body material : PVC



Body material : HT・CPVC



Body material : PP



Body material : PVDF

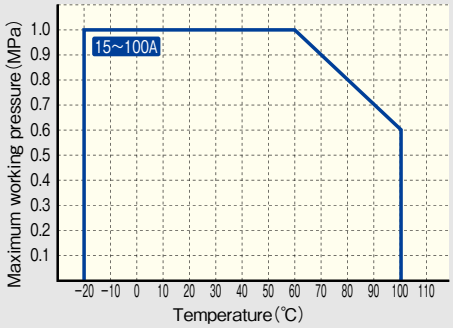
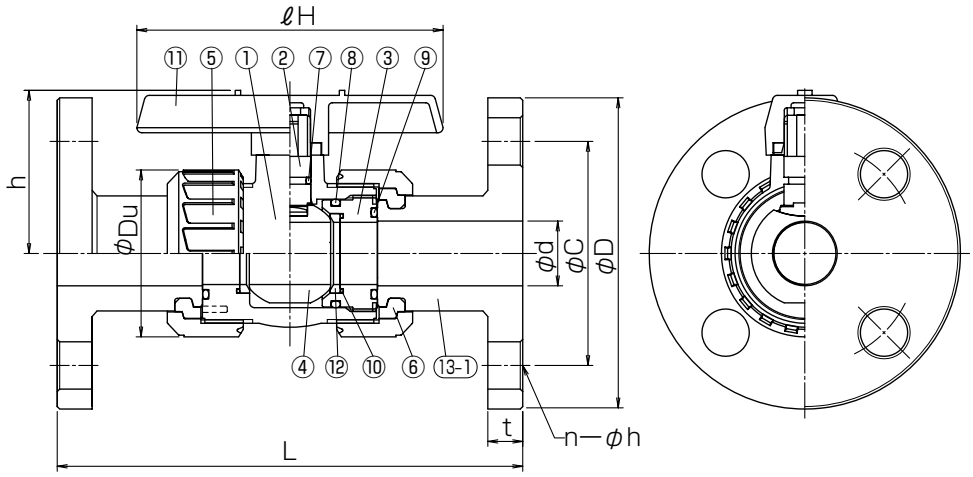
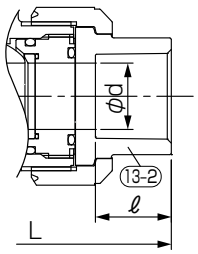


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

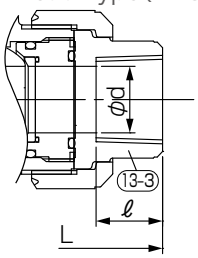
● Flange Type



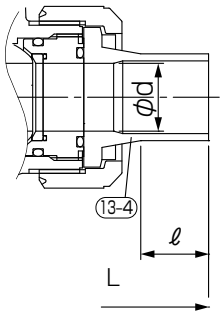
● TS Socket Type (PVC, HT, CPVC)



● Thread Type (PVC, PVDF)



● Butt Type (PP, PVDF, PE)



Parts List

No.	Part Name	Q'TY	Material／Color	No.	Part Name	Q'TY	Material／Color
1	Body	1	●PVC ●HT(JIS:Brown) ●CPVC (ANSI・DIN:Gray) ●PP ●PVDF	13-1	Flange	2	● PVC ● HT ● CPVC ● PP ● PVDF
2	Stem	1					
3	Ball holder	*1					
4	Ball	1					
5	Union nut	2					
6	Set ring	2		13-2	TS Socket	2	● PVC ● HT ● CPVC
7	Stem O-ring	*2	● EPDM ● FKM				
8	Ball holder O-ring	*3		13-3	Threaded	2	● PVC ● PVDF
9	Union O-ring	2		13-4	Butt Spigot Type	2	●PP ●PVDF ●PE
10	Ball seat O-ring	2					
11	Handle	1	ABS	13-5	Socket welding	2	PP
12	Ball Seat	2	PTFE				

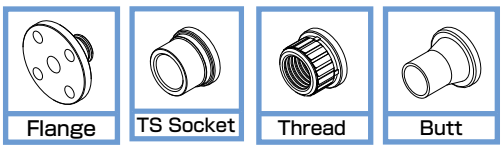
*1 15~50A：1、65~100A：2　*2 15~32A：1、40~100A：2　*3 15~50A：1、65~100A：2

Size

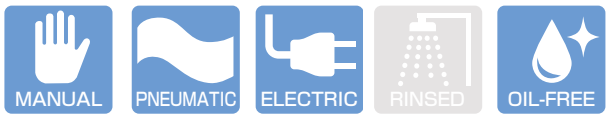
Size A	Size B	ϕd	h	ℓH	ϕDu	Flange L PVC,HT,CPVC	Flange L PP,PVDF	JIS10K ϕD	JIS10K ϕC	JIS10K n-ϕh	JIS10K t	ANSI ϕD	ANSI ϕC	ANSI n-ϕh	ANSI t	DIN ϕD	DIN ϕC	DIN n-ϕh	DIN t
15	1/2	15	50	95	49	143		95	70	4-15	14	89	60.5	4-16	11.5	95	65	4-14	11
20	3/4	20	53	95	59	172		100	75	4-15	14	98	70.0	4-16	13.0	105	75	4-14	12
25	1	25	66	123	67	187		125	90	4-19	14	108	79.5	4-16	14.5	115	85	4-14	14
32	1 1/4	32	74	123	81	190		135	100	4-19	16	117.5	89.0	4-16	16.0	140	100	4-18	15
40	1 1/2	40	100	152	98	212		140	105	4-19	16	127	98.5	4-16	17.5	150	110	4-18	16
50	2	50	107	152	120	234		155	120	4-19	20	152	120.5	4-19	19.5	165	125	4-18	18
65	2 1/2	65	146	188	150	259	257	175	140	4-19	22	178	139.5	4-20	22.5	185	145	4-18	22
80	3	80	169	230	186	304	301	185	150	8-19	22	191	152.5	4-20	24.0	200	160	8-18	23
100	4	100	203	283	228	372	367	210	175	8-19	24	229	190.5	8-20	24.0	220	180	8-18	23

Size A	Size B	TS Socket JIS PVC,HT,CPVC L	TS Socket JIS PVC,HT,CPVC ℓ	TS Socket ASTM PVC,HT,CPVC L	TS Socket ASTM PVC,HT,CPVC ℓ	TS Socket DIN L	TS Socket DIN ℓ	Thread JIS,DIN(Rc) PVC L	Thread JIS,DIN(Rc) PVC ℓ	Thread JIS,DIN(Rc) PVDF L	Thread JIS,DIN(Rc) PVDF ℓ	Thread ANSI(NPT) PVC L	Thread ANSI(NPT) PVC ℓ	Thread ANSI(NPT) PVDF L	Thread ANSI(NPT) PVDF ℓ	Thread DIN(Rp) PVC L	Thread DIN(Rp) PVC ℓ	Thread DIN(Rp) PVDF L	Thread DIN(Rp) PVDF ℓ
15	1/2	109	22	103	22.22	92	16	97	18	99	20	97	18	99	99	97	18	99	99
20	3/4	132	25	119	25.4	107	19	117	18	116	22	117	18	116	116	117	18	116	116
25	1	143	29	133	28.58	121	22	128	23	136	24	128	23	136	136	128	23	136	136
32	1 1/4	166	32	147	31.75	137	26	146	23	148	25	146	23	148	148	146	23	148	148
40	1 1/2	175	35	171	34.93	161	31	163	25	169	28	163	25	169	169	163	25	169	169
50	2	203	38	188	38.1	189	38	188	30	196	30	188	30	196	196	188	30	196	196
65	2 1/2	259	61	211	44.45	211	44	227	32	227	32	212	32	212	227	212	32	212	227
80	3	311	64	262	47.63	263	51	278	37	278	37	261	37	261	278	261	37	261	278
100	4	390	84	315	57.15	315	61	330	45	330	45	315	45	315	330	315	45	315	330

Size A	Size B	Butt Spigot DIN PP,PVDF L	Butt Spigot DIN PP,PVDF ℓ	Butt Spigot DIN PE L	Butt Spigot DIN PE ℓ	Socket welding DIN PP L	Socket welding DIN PP ℓ	Weight(kg/unit) Flange PVC	Flange HT,CPVC	Flange PP	Flange PVDF	Socket PVC	Socket HT,CPVC	Thread PVC	Thread PVDF	Spigot PVDF
15	1/2	143	30	210	65	103	12.0	0.4	0.4	0.3	0.5	0.2	0.2	0.2	0.2	0.2
20	3/4	152	24	220	65	114	13.0	0.6	0.6	0.4	0.7	0.3	0.3	0.3	0.3	0.3
25	1	161	24	237	70	126	14.5	0.9	0.9	0.5	1.0	0.4	0.4	0.4	0.5	0.5
32	1 1/4	167	25	258	75	141	18.0	1.2	1.2	0.7	1.3	0.6	0.6	0.6	0.6	0.6
40	1 1/2	190	24	292	80	162	16.0	1.7	1.7	1.1	1.9	1.1	1.1	1.1	1.2	1.2
50	2	216	28	325	90	185	20.0	2.6	2.6	1.6	3.0	1.6	1.7	1.6	1.9	1.9
65	2 1/2	208	23	363	100	204	21.0	4.2	4.3	2.8	5.0	3.0	3.3	3.0	3.6	3.6
80	3	301	45	424	105	264	26.5	6.7	6.9	4.4	8.2	5.6	6.1	5.6	7.0	7.0
100	4	340	43	478	110	317	31.5	11.5	11.9	7.4	14.1	10.5	11.2	10.5	12.5	12.5

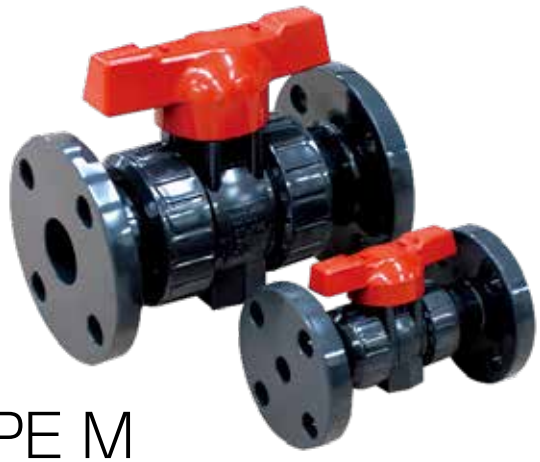


JIS | ANSI / ASME / ASTM | DIN / ISO



Operating Temperature(℃)

PVC	0 ~ 50	PP	− 20 ~ 80
HT·CPVC	0 ~ 90	PVDF	− 20 ~ 100



ESLON BALL VALVE TYPE M

Feature

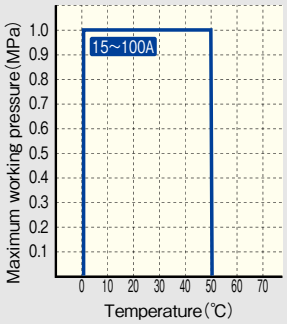
- Left hand screw on ball holder prevents screw loose and ensures perfect sealing of the valve when union nut is loosened.
- Full port in all size. No pressure loss at full opened position by nominal size of inner diameter.
- Keep water quality by little obstructed design in flow path. Compared with the conventional type (non-mount type), light-weight & compactness.
- It's possible to install an actuator on to the valve body directly.

⚠ Important Notes

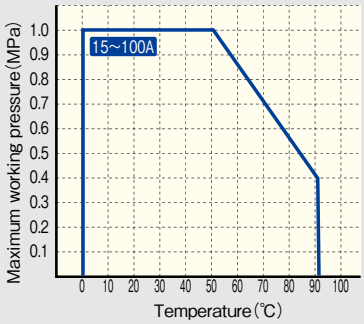
- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

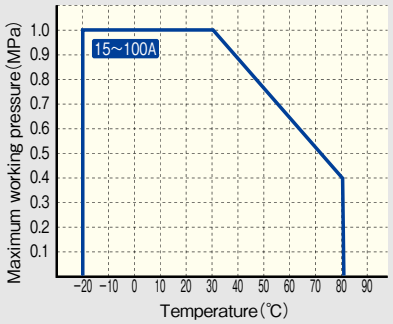
Body material : PVC



Body material : HT・CPVC



Body material : PP



Body material : PVDF

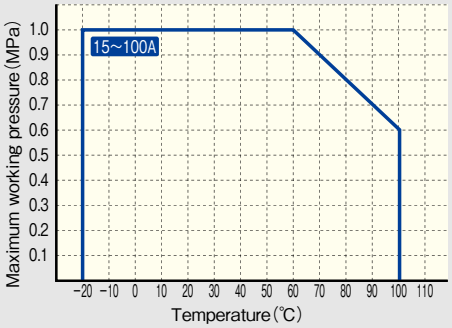
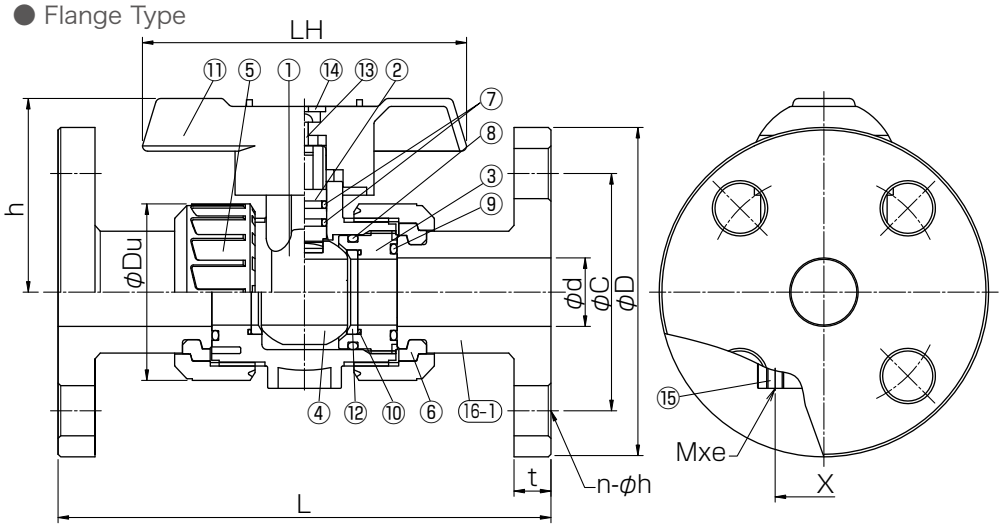
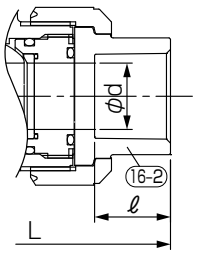


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

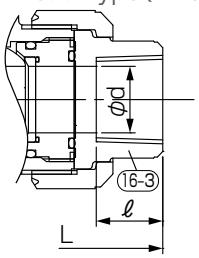
● Flange Type



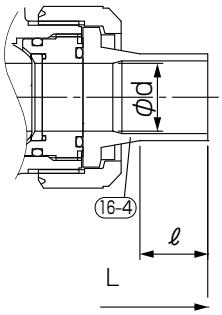
● TS Socket Type (PVC、HT、CPVC)



● Thread Type (PVC、PVDF)



● Butt Type (PVDF)



Parts List

No.	Part Name	Q'TY	Material／Color	No.	Part Name	Q'TY	Material／Color
1	Body	1	●PVC ●HT(JIS:Brown) ●CPVC (ANSI・DIN:Gray) ●PP ●PVDF	14	Handle Cap	1	ABS
2	Stem	1		15	Insert Nut	2	C3604
3	Ball holder	1		16-1	Flange	2	● PVC ● HT ● CPVC ● PP ● PVDF
4	Ball	1					
5	Union nut	2					
6	Set ring	2					
7	Stem O-ring	2	● EPDM ● FKM	16-2	TS Socket	2	● PVC ● HT ● CPVC
8	Ball holder O-ring	1					
9	Union O-ring	2					
10	Ball seat O-ring	2					
11	Handle	1	ABS	16-3	Threaded	2	● PVC ● PVDF
12	Ball Seat	2	PTFE	16-4	Butt Spigot Type	2	●PP ●PVDF ●PE
13	Screw	1	SUS304				

Size

Size A	Size B	φd	h	LH	φDu	FIXING Insert Nut X	FIXING Insert Nut Mxe	Flange L PVC,HT	Flange L PP,PVDF	Flange JIS10K φD	JIS10K φC	JIS10K n-φh	JIS10K t	Flange ANSI φD	ANSI φC	ANSI n-φh	ANSI t	Flange DIN φD	DIN φC	DIN n-φh	DIN t
15	1/2	15	53	95	49	27	M5x8	143		95	70	4-15	14	89	60.5	4-16	11.5	95	65	4-14	11
20	3/4	20	62	95	59	32	M5x8	172		100	75	4-15	14	98	70.0	4-16	13.0	105	75	4-14	12
25	1	25	76	123	67	37	M5x8	187		125	90	4-19	14	108	79.5	4-16	14.5	115	85	4-14	14
32	1 1/4	32	84	123	81	42	M5x8	190		135	100	4-19	16	117.5	89.0	4-16	16.0	140	100	4-18	15
40	1 1/2	40	114	158	98	57	M6x10	212		140	105	4-19	16	127	98.5	4-16	17.5	150	110	4-18	16
50	2	50	120	158	120	67	M6x10	234		155	120	4-19	20	152	120.5	4-19	19.5	165	125	4-18	18
65	2 1/2	65	153	211	150	81	M6x10	259	257	175	140	4-19	22	178	139.5	4-20	22.5	185	145	4-18	22
80	3	80	171	240	186	99.7	M8x10	304	301	185	150	8-19	22	191	152.5	4-20	24.0	200	160	8-18	23
100	4	100	202	290	228	119.7	M8x10	372	367	210	175	8-19	24	229	190.5	8-20	24.0	220	180	8-18	23

Size A	Size B	TS Socket JIS PVC,HT,CPVC L	TS Socket JIS PVC,HT,CPVC ℓ	TS Socket ASTM PVC,HT,CPVC L	TS Socket ASTM PVC,HT,CPVC ℓ	TS Socket DIN L	TS Socket DIN ℓ	Thread JIS,DIN(Rc) PVC L	Thread JIS,DIN(Rc) PVC ℓ	Thread JIS,DIN(Rc) PVDF L	Thread JIS,DIN(Rc) PVDF ℓ	Thread ANSI(NPT) PVC L	Thread ANSI(NPT) PVC ℓ	Thread ANSI(NPT) PVDF L	Thread ANSI(NPT) PVDF ℓ	Thread DIN(Rp) PVC L	Thread DIN(Rp) PVC ℓ	Thread DIN(Rp) PVDF L	Thread DIN(Rp) PVDF ℓ
15	1/2	109	22	103	22.22	92	16	97	18	99	20	97	18	99	99	97	18	99	99
20	3/4	132	25	119	25.4	107	19	117	18	116	22	117	18	116	116	117	18	116	116
25	1	143	29	133	28.58	121	22	128	23	136	24	128	23	136	136	128	23	136	136
32	1 1/4	166	32	147	31.75	137	26	146	23	148	25	146	23	148	148	146	23	148	148
40	1 1/2	175	35	171	34.93	161	31	163	25	169	28	163	25	169	169	163	25	169	169
50	2	203	38	188	38.1	189	38	188	30	196	30	188	30	196	196	188	30	196	196
65	2 1/2	259	61	211	44.45	211	44	227	32	227	32	212	32	212	227	212	32	212	227
80	3	311	64	262	47.63	263	51	278	37	278	37	261	37	261	278	261	37	261	278
100	4	390	84	315	57.15	315	61	330	45	330	45	315	45	315	330	315	45	315	330

Size A	Size B	Butt Spigot DIN PP,PVDF L	Butt Spigot DIN PP,PVDF ℓ	Butt Spigot DIN PE L	Butt Spigot DIN PE ℓ	Socket welding DIN PP L	Socket welding DIN PP ℓ1	Socket welding DIN PP ℓ2	Weight(kg/unit) Flange PVC	Flange HT,CPVC	Flange PP	Flange PVDF	Socket PVC	Socket HT,CPVC	Thread PVC	Thread PVDF	Spigot PP	Spigot PVDF
15	1/2	143	30	210	65	103	17.5	12.0	0.4	0.4	0.3	0.5	0.2	0.2	0.2	0.2	0.1	0.2
20	3/4	152	24	220	65	114	19.0	13.0	0.6	0.6	0.4	0.7	0.3	0.3	0.3	0.3	0.2	0.4
25	1	161	24	237	70	126	21.0	14.5	0.9	0.9	0.5	1.0	0.4	0.4	0.4	0.5	0.3	0.5
32	1 1/4	167	25	258	75	141	23.5	18.0	1.2	1.2	0.7	1.3	0.6	0.6	0.6	0.6	0.4	0.7
40	1 1/2	190	24	292	80	162	26.5	16.0	1.8	1.8	1.2	2.0	1.2	1.2	1.2	1.3	0.7	1.3
50	2	216	28	325	90	185	30.5	20.0	2.7	2.7	1.7	3.1	1.7	1.8	1.7	2.0	1.1	1.9
65	2 1/2	208	23	363	100	204	34.0	21.0	4.7	4.7	3.2	5.7	3.5	3.7	3.5	4.1	2.3	4.0
80	3	301	45	424	105	264	37.0	26.5	7.3	7.6	5.0	9.1	6.2	6.8	6.2	7.5	4.3	7.6
100	4	340	43	478	110	317	41.0	31.5	12.5	13.0	8.1	15.5	11.5	12.3	11.5	13.5	7.2	13.3

Flange | TS Socket | Thread | Butt

JIS

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50

ESLON COMPACT BALL VALVE

Feature

- Compact body and short face to face dimension enable installation even in narrow space.
- Usable even in the condition with vibration or thermal expansion as unified body with connection end.
- Six colors of handle enable easier management of application and fluid classification.

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure -Temperature Rating

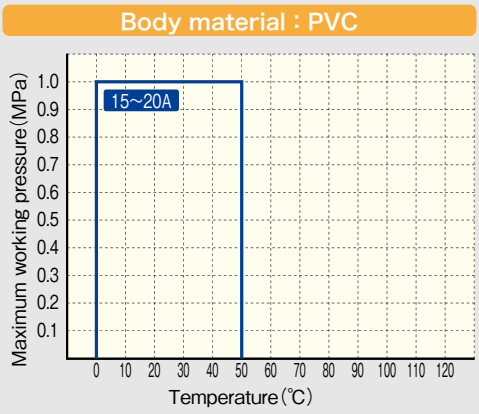
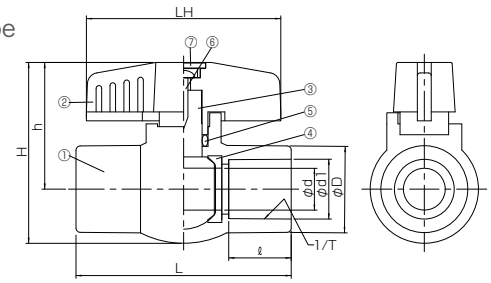
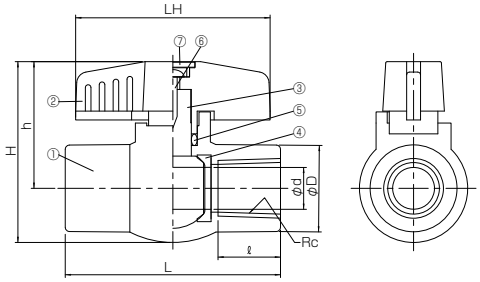


Figure (TS Socket Type・Thread Type)

● TS Socket Type



● Thread Type



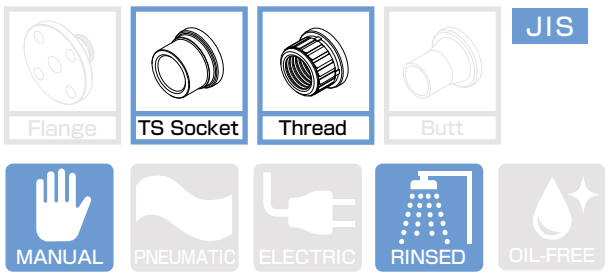
Parts List

No.	Part Name	Q'TY	Material
1	Body	1	PVC
2	Handle	1	ABS
3	Stem	1	CPVC
4	Ball Seat	2	TPO
5	O-Ring	1	● EPDM ● FKM
6	Screw	1	SUS304
7	Cap	2	ABS

Size

Unit : ㎜

Size		d	L	H	h	LH	TS Socket			Thread		Weight(kg/unit)	
A	B						d1	1/T	ℓ	Rc	ℓ	TS Socket	Thread
15	1/2	15	77.5	65	45.5	70	22.3	1/37	22.4	Rc 1/2	18	0.08	0.08
20	3/4	20	90.0	75	52.0	79	26.3	1/42	25.6	Rc 3/4	18	0.14	0.14



Operating Temperature(℃)

PVC	0～50

ESLON LOCK BALL VALVE

Feature

- Usable even in the condition with vibration or thermal expansion as unified body with connection end.
- Six colors of handle enable easier management of application and fluid classification.

6 Colors Handle for Easy Maintenance

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure -Temperature Rating

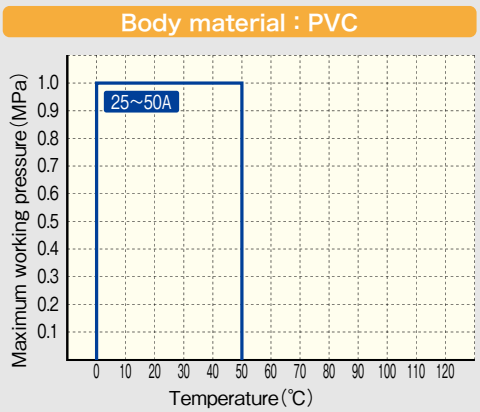
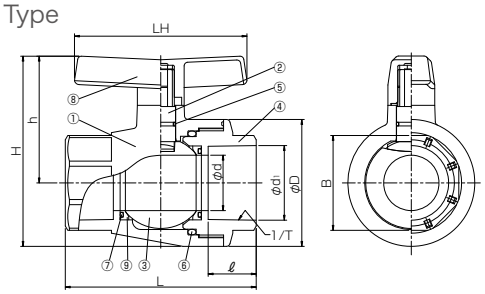
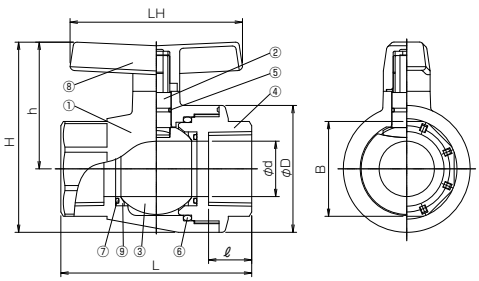


Figure (TS Socket Type・Thread Type)

● TS Socket Type



● Thread Type



Parts List

No.	Part Name	Q'TY	Material
1	Body	1	PVC
2	Stem	1	PVC
3	Ball	1	PVC
4	Body Cap	1	PVC
5	Stem O-Ring	1	● EPDM ● FKM
6	Body O-Ring	1	
7	BackUp O-Ring	2	
8	Handle	1	ABS
9	Ball Seat	2	PTFE

Size

TS Socket・Thread

Unit : ㎜

Size A	Size B	d	L	H	h	ϕ D	LH	B	TS Socket d1	TS Socket 1/T	TS Socket ℓ	Thread Rc	Thread ℓ	Weight(kg/unit) TS Socket	Weight(kg/unit) Thread
25	1	25	113.0	96	64.0	66.0	95	46	32.3	1/43	29.0	Rc 1	23	0.3	0.3
32	1 1/4	29	114.0	119	82.0	74.0	110	60(54)	38.4	1/37	32.0	Rc 1 1/4	28	0.4	0.4
40	1 1/2	35	130.0	133	91.0	85.0	110	65	48.5	1/38	35.0	Rc 1 1/2	30	0.6	0.6
50	2	45	155.0	154	103.0	103.0	140	77	60.6	1/35	39.0	Rc 2	35	1.0	1.0

*The octagonal part of 32A differs by the Body and Bodycap side.The value of body side is indicated by ( ) .

Flange | TS Socket | Thread | Butt

JIS

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50

13、15A

6A

ESLON MINI BALL VALVE

Feature

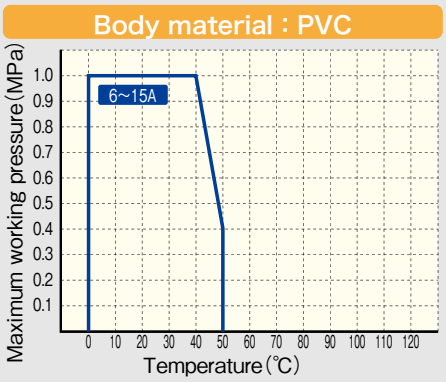
- Low stem torque and reliable sealing performance.
- Position indicator at handle enable easier flow rate regulation.
- Five types of end connections and their combination of both end connection available.

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

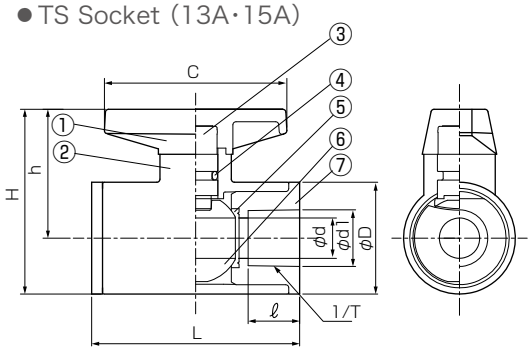
Maximum Working Pressure - Temperature Rating

Body material : PVC

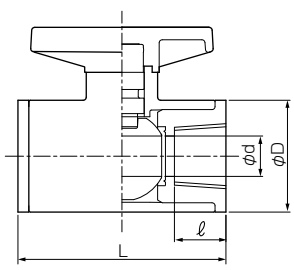


Figure,Parts List,Size(TS Socket Type and Thread Type,13A・15A)

● TS Socket (13A・15A)



● Thread(15A)



(13A、15A)

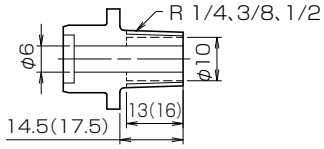
No.	Part Name	Q'TY	Material
1	Handle	1	ABS
2	Body	1	PVC
3	Stem	1	PVC
4	O-Ring	1	● EPDM ● FKM
5	Ball Seat	2	PTFE
6	Ball	1	PVC
7	Socket	2	PVC

Unit : mm

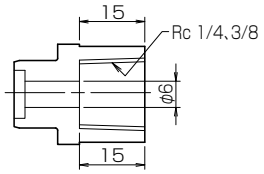
Size		d	L	H	h	D	C	TS Socket				Thread		
A	B							d1	1/T	ℓ	Weight (g/unit)	Rc	ℓ	Weight (g/unit)
13	3/8	13	67	60	42	35	60	18.3	1/33	16.5	90	—	—	—
15	1/2	13	67	60	42	35	60	22.3	1/33	16.5	80	Rc1/2	16	90

Figure (6A)

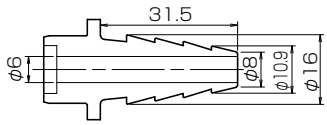
● Male thread



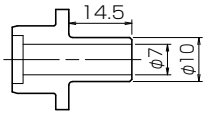
● Female thread



● Hose

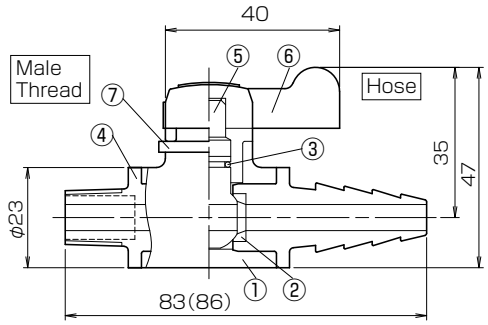


● Spigot

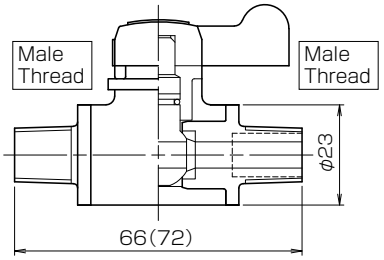


※Dashed line,()dimensions:Rc 1/2

● Male Thread×Hose

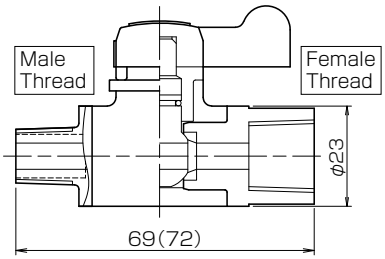


● Male Thread×Male Thread

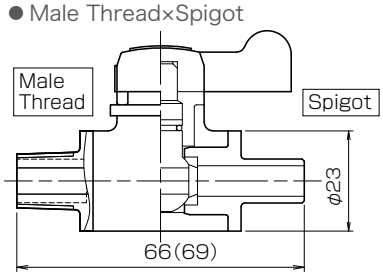


※Dashed line,()dimensions:Rc 1/2

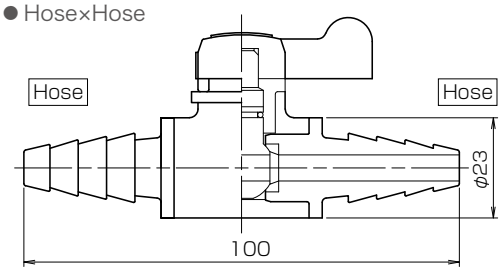
● Male Thread×Female Thread



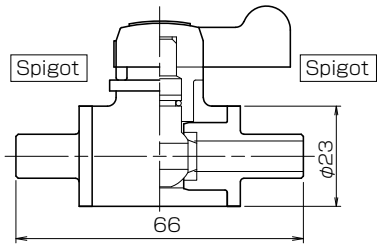
● Male Thread×Spigot



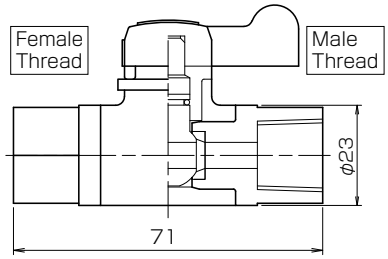
● Hose×Hose



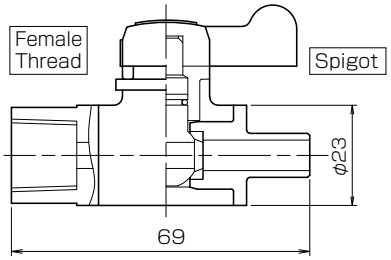
● Spigot×Spigot



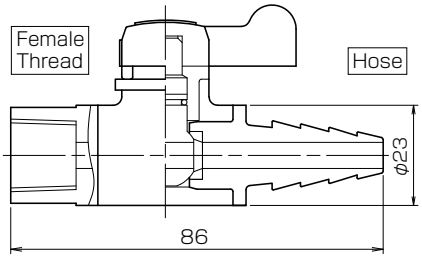
● Female Thread×Female Thread



● Female Thread×Spigot



● Female Thread×Hose



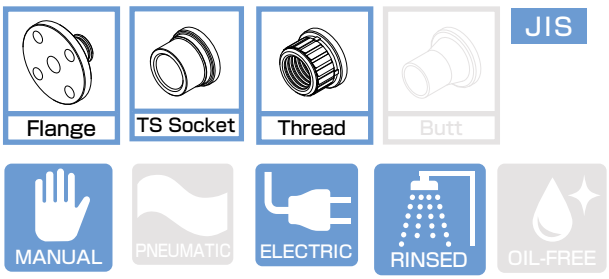
Parts List

(6A)

No.	Part Name	Q'TY	Material
1	Body	1	PVC
2	Ball Seat	2	● EPDM ● FKM
3	O-ring	1	● EPDM ● FKM
4	Socket	1	PVC
5	Ball	1	PVC
6	Handle	1	ABS
7	Stem Stopper	1	PVC

Combination of End Connection, Weight

Size	Part Name	Weight(g/unit)
6A	Male Thread×Male Thread	30
	Male Thread×Female Thread	40
	Male Thread×Hose	40
	Male Thread×Spigot	30
	Female Thread×Female Thread	40
	Female Thread×Hose	40
	Female Thread×Spigot	40
	Hose×Hose	40
	Spigot×Spigot	30



Operating Temperature(℃)

PVC	0～50

Flange

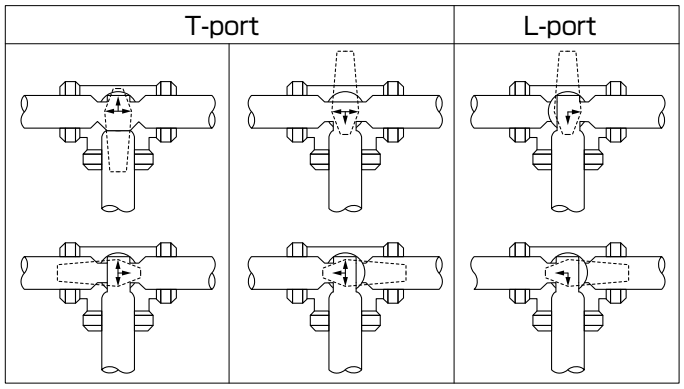
TS Socket･Thread

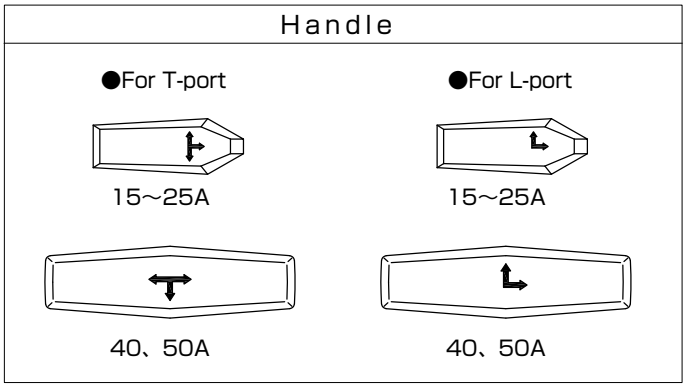
ESLON 3-WAY BALL VALVE

Feature

- Lock mechanism of ball stopper prevents popping out of the ball when Unit Nut of downstream side is loosened.
- Arrow marks on handle and body ensure flow direction.
- Two patterns of flow directional control available, T-Port and L-Port.

Flow Control Pattern by Handle Position





⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC

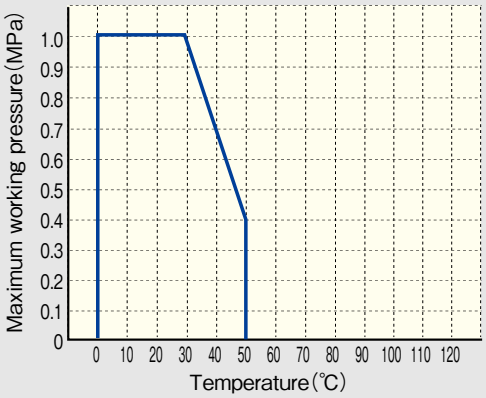
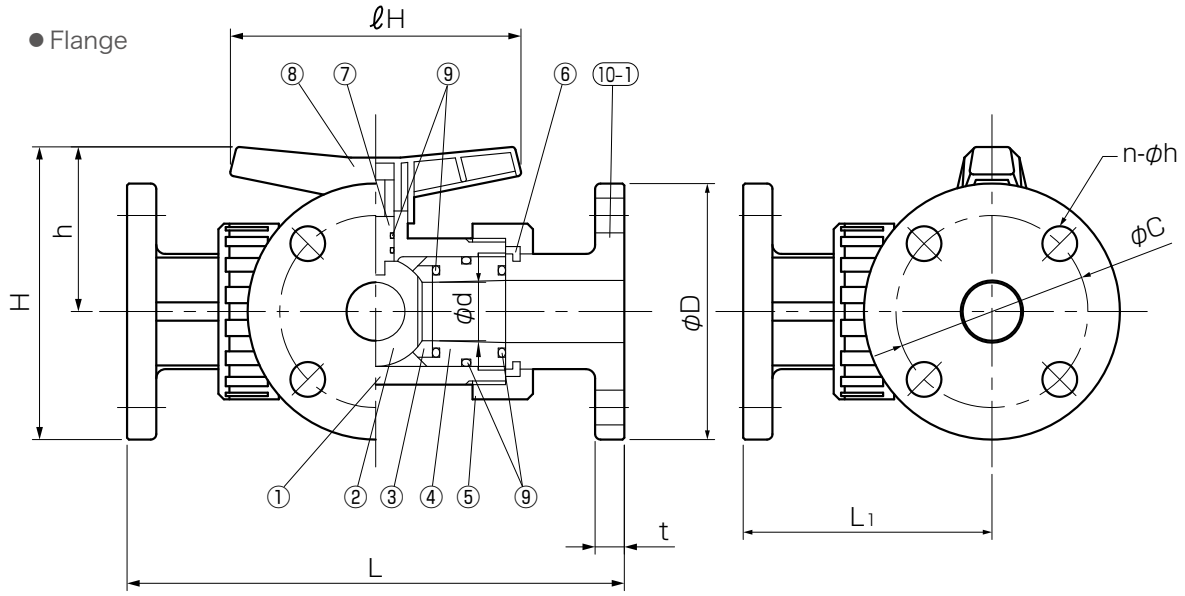
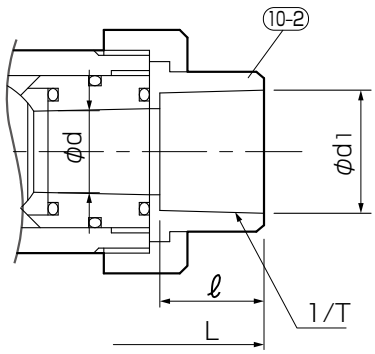


Figure (Flange Type・TS Socket Type・Thread Type)

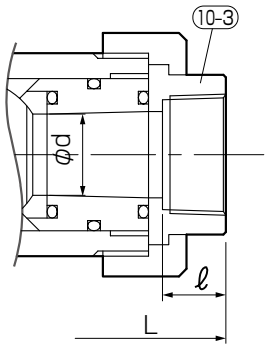
● Flange



● TS Socket



● Thread



Parts List

No.	Part Name	Q'TY	Material
1	Body	1	PVC
2	Ball	1	PVC
3	Seat	4	PTFE
4	Ball Stopper	2	PVC
5	Union Nut	3	PVC
6	Set Ring	3	PVC
7	Stem	1	PVC
8	Handle	1	PVC
9	O-ring	11	● EPDM ● FKM
10-1	Flange	3	PVC
10-2	TS socket	3	PVC
10-3	Thread	3	PVC

Size

Flange Type

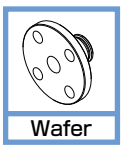
Unit : mm

Size		d	L	L1	H	h	ℓH	Flange(JIS 10K)				Weight (kg/unit)
A	B							D	C	n-φh	t	PVC
15	1/2	11	163	82	95	48	73	95	70	4-15	14	0.8
20	3/4	16	200	100	102	52	85	100	75	4-15	14	0.9
25	1	20	221	111	126	64	94	125	90	4-19	16	1.5
40	1 1/2	32	272	136	160	90	160	140	105	4-19	18	2.5
50	2	38	306	153	176	98	160	155	120	4-19	20	4.0

TS Socket Type・Thread Type

Unit : mm

Size		d	L		L1		H	h	ℓH	TS Socket			Thread		Weight(kg/unit)	
A	B		TS	Thread	TS	Thread				d1	1/T	ℓ	Size	ℓ	PVC TS	PVC Thread
15	1/2	11	129	118	65	59	73	48	73	22.3	1/34	24	Rc 1/2	13	0.3	0.3
20	3/4	16	151	134	76	67	81	52	85	26.3	1/34	28	Rc 3/4	15	0.4	0.4
25	1	20	175	156	88	78	98	64	94	32.4	1/34	32	Rc 1	17	0.6	0.6
40	1 1/2	32	232	203	116	102	138	90	160	48.5	1/37	41	Rc 1 1/2	19	1.5	1.5
50	2	38	260	225	130	113	154	98	160	60.6	1/37	47	Rc 2	23	2.3	2.2



JIS ANSI/ASME DIN

Operating Temperature(℃)

PVC	0～50
PP	0～80
PVDF	0～120

ESLON BUTTERFLY VALVE LEVER TYPE

Feature

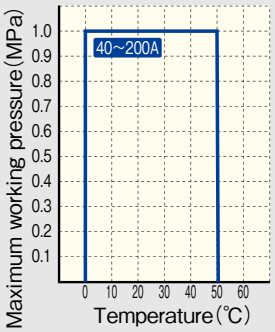
- Reliable sealing performance as spherical disc and preventive flange design against over-tightening.
- Changeable operating direction of lever handle into opposite even after installation.
- Exchangeable into gear type or automatic type by dismounting lever handle and indicator plate.
- Positioning pin for easy piping work (JIS10K)
- Controllable flow in 12 levels. Lockable lever type which has key hole available.

⚠ Important Notes

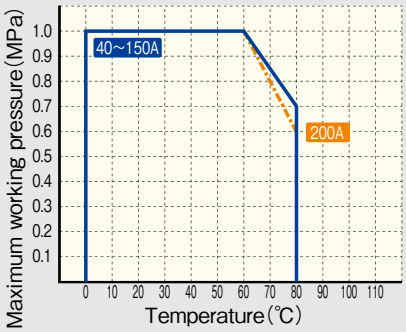
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

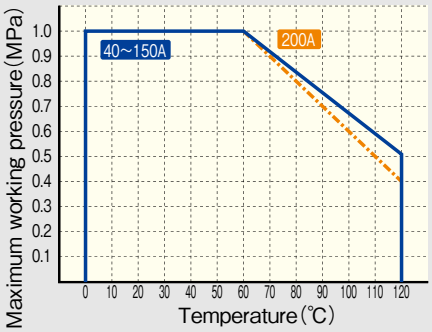
Body material : PVC



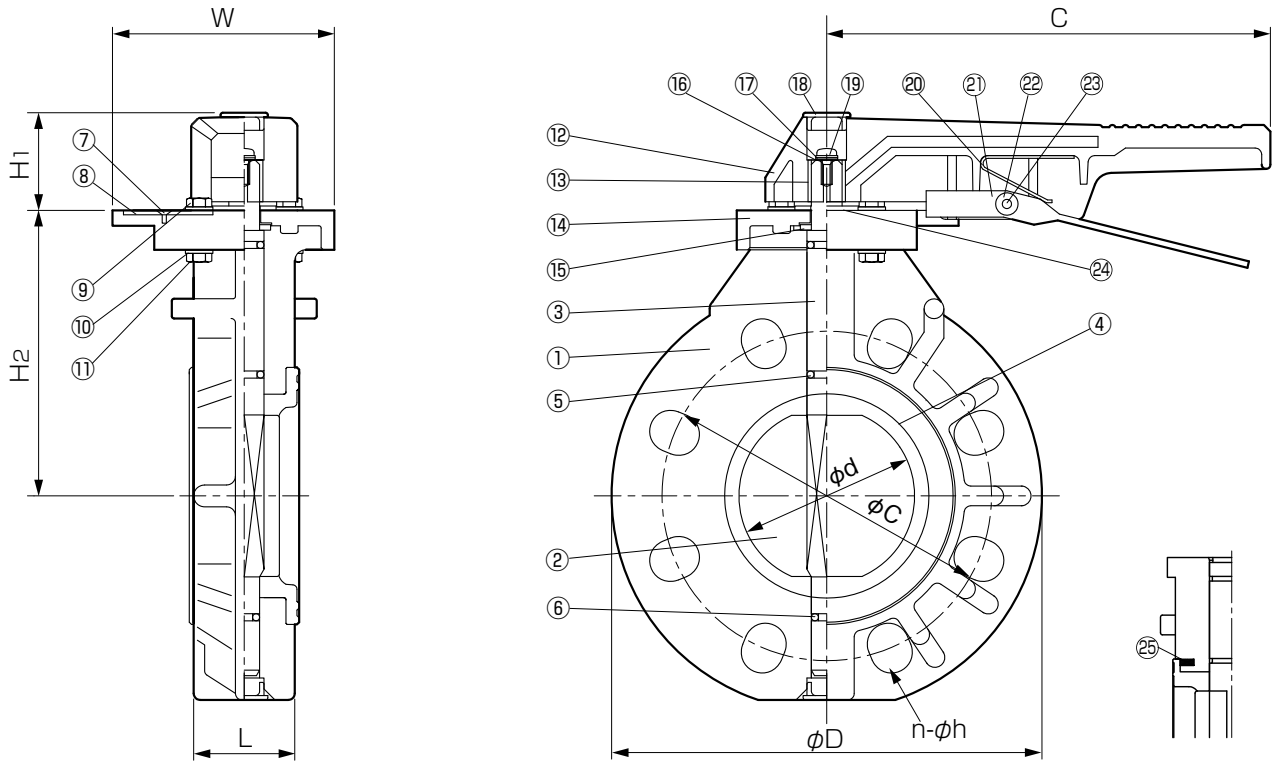
Body material : PP



Body material : PVDF



Figure



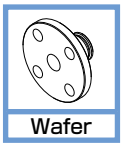
Parts List

No.	Part Name	Q'TY	Material	No.	Part Name	Q'TY	Material
1	Body	1	Body/Disc ● PVC/PP ● PP/PP ● PVDF/PVDF	12	Handle	1	ABS
2	Disc	1		13	Handle insert	1	SUS304
3	Shaft	1	● SUS420J2 ● SUS316	14	Indicator plate	1	PVC
4	Seat ring	1	● EPDM ● FKM	15	Thrust ring	1	SUS304
5	O-Ring	2		16	Washer	1	SUS304
6	O-Ring	1		17	Spring washer	1	SUS304
7	Tapping screw	3	SUS304	18	Cap	1	PP
8	Lock plate	1	SUS304	19	Machine screw	1	SUS304
9	Hexagonal bolt	2	SUS304	20	Flat spring	1	SUS304-CSP
10	Washer	4	SUS304	21	Lever	1	SUS304
11	Hexagonal nut	1	SUS304	22	Pin cover	1	PP
				23	Spring pin	1	SUS304
				24	Handle washer	1	PP
				25	Reinforced Ring(200A Body:PP)	2	S45C+Painting

Size

Unit : mm

Size		d	L	H_1	H_2	C	W	D	Flange						Weight(kg/unit)		
									JIS10K		ANSI		DIN				
A	B								ϕ C	n-ϕh	ϕ C	n-ϕh	ϕ C	n-ϕh	PVC	PP	PVDF
40	1 1/2	45	33	44	112	202	101	140	105	4-19	98.5	4-16	110	4-18	1.2	1.1	1.3
50	2	57	43	44	119	202	101	155	120	4-19	120.5	4-19	125	4-18	1.4	1.2	1.6
65	2 1/2	71	46	44	130	202	101	178	140	4-19	139.5	4-19	145	4-18	1.7	1.5	1.9
80	3	80	46	44	137	202	101	196	150	8-19	152.5	4-19	160	8-18	2.0	1.8	2.3
100	4	100	52	44	161	245	123	229	175	8-19	190.5	8-19	180	8-18	3.0	2.7	3.4
125	5	125	56	54	179	310	155	254	210	8-23	216.0	8-22	210	8-18	4.6	4.1	5.3
150	6	150	60	54	188	310	155	286	240	8-23	241.5	8-22	240	8-22	5.5	4.8	6.5
200	8	198	71	68	240	400	200	343	290	12-23	298.5	8-22	295	8-22	8.9	8.0	10.5



JIS ANSI/ASME DIN

Operating Temperature(℃)

PVC	0～50
PP	0～80
PVDF	0～120


40-300A

ESLON BUTTERFLY VALVE GEAR TYPE


350-600A

Feature

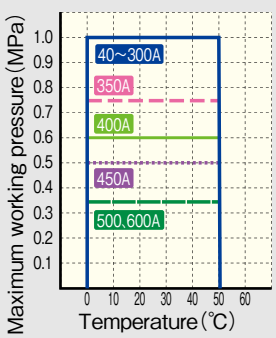
- Reliable sealing performance as spherical disc and preventive flange design against over-tightening.
- Changeable assembled direction of worm gear handle into opposite even after installation.
- Exchangeable into lever type or automatic type by dismounting worm gear.
- Positioning pin for easy piping work (JIS10K)
- Long Spindle Type, Chain Wheel Type, and Lockable handle type available.

⚠ Important Notes

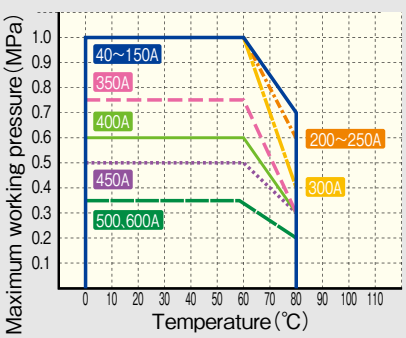
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

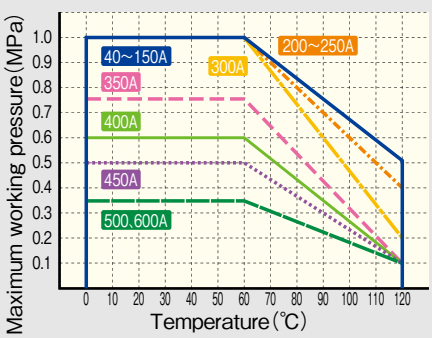
Body material : PVC



Body material : PP

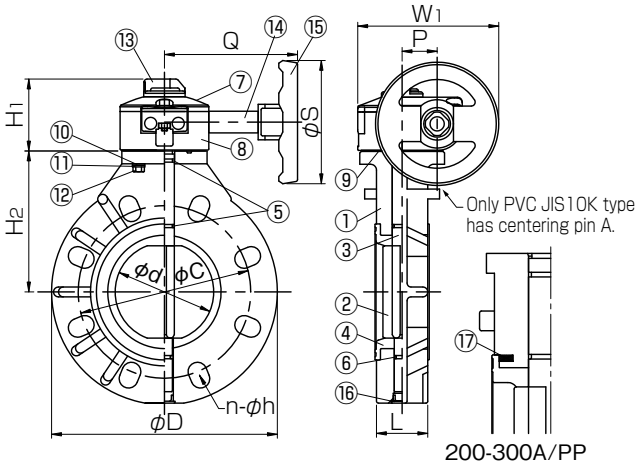


Body material : PVDF

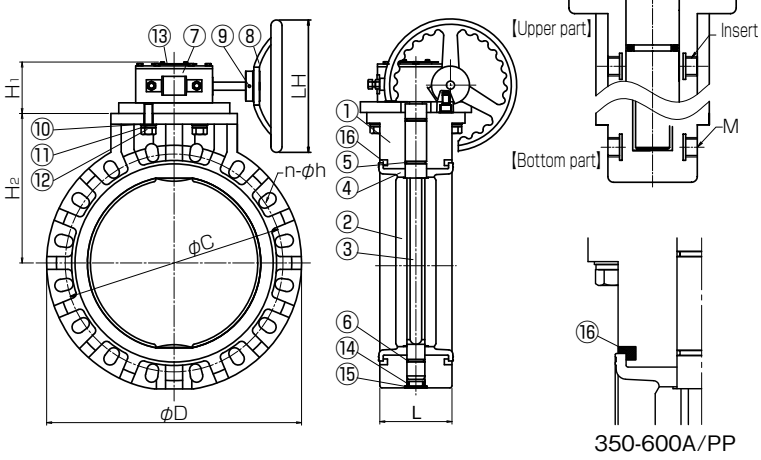


Figure

● Gear Type(40A～300A)



● Gear Type(350A～600A)



Parts List

Gear Type (40A～300A)

No.	Part Name	QTY	Material	No.	Part Name	QTY	Material
1	Body	1	● PVC ● PP ● PVDF	9	Packing	1	EPDM
				10	Washer	4	SUS304
2	Disc	1	● PP ● PVDF	11	Spring washer	1	SUS304
				12	Hexagonal bolt	1	SUS304
3	Shaft	1	● SUS420J2 ● SUS316	13	Indicator	1	ABS
				14	Shaft Cover	1	PVC
4	Seat Ring	1	● EPDM ● FKM	15	Handle	1	ABS
5	O-Ring	2		16	Cap	1	PP
6	O-Ring	1		17	Reinforced Ring (200-300A Body:PP)	2	S45C+Painting
7	Housing Cover	1	GFPP				
8	Housing	1	GFPP				

Gear Type (350A～600A)

No.	Part Name	QTY	Material	No.	Part Name	QTY	Material
1	Body	1	● PVC ● PP ● PVDF	9	Spring Pin	1	SUS304
				10	Washer	4	SUS304
2	Disc	1	● PP ● PVDF	11	Spring Washer	4	SUS304
				12	Hexagonal bolt	4	SUS304
3	Shaft	1	● SUS420J2 ● SUS316	13	Indcator	1	SUS304
				14	O-Ring	1	EPDM
4	Seat Ring	1	● EPDM ● FKM	15	Cap	1	PP
5	O-Ring	2		16	Reinforced Ring (Body:PP)	2	S45C+Painting
6	O-Ring	1					
7	Gear Box	1	FC+Painting	17	Insert (450-600A)	8	C3604
8	Handle	1	FC+Painting				

· For sea water application, the stem material must be SUS316.
Please contact us in advance.

Size

Gear Type (40A～300A)

Unit : mm

Size A	Size B	L	ϕ D	Flange(JIS 10K) JIS10K ϕ C	JIS10K n-ϕh	ANSI ϕC	ANSI n-ϕh	DIN ϕC	DIN n-ϕh	H1	H2	W1	P	Q	ϕS	Weight(kg/unit) PVC	PP	PVDF
40	1 1/2	33	140	105	4-19	98.5	4-16	110	4-18	72	105	143	36	135	125	2.1	2.0	2.2
50	2	43	155	120	4-19	120.5	4-19	125	4-18	72	112	143	36	135	125	2.3	2.1	2.5
65	2 1/2	46	178	140	4-19	139.5	4-19	145	4-18	72	123	143	36	135	125	2.7	2.5	2.9
80	3	46	196	150	8-19	152.5	4-19	160	8-18	72	130	143	36	135	125	3.0	2.8	3.3
100	4	52	229	175	8-19	190.5	8-19	180	8-18	72	152	143	36	135	125	3.8	3.6	4.2
125	5	56	254	210	8-23	216.0	8-22	210	8-18	84	169	235	68	178	210	5.9	5.4	6.6
150	6	60	286	240	8-23	241.5	8-22	240	8-22	84	178	235	68	178	210	7.5	6.8	8.5
200	8	71	343	290	12-23	298.5	8-22	295	8-22	84	230	235	68	178	210	9.3	8.4	10.9
250	10	78	410	355	12-25	362.0	12-25	350	12-22	115	250	353	88	270	350	19.3	17.8	21.9
300	12	114	485	400	16-25	432.0	12-25	400	12-22	115	280	353	88	270	350	26.4	24.5	30.8

· Only PVC JIS10K type has centering pin A.
· Disc full-open/full close by 5 times of handle rotation for 40-100A,10 times of handle rotation for 125-300A.
· Valve flange is universal type and bolt holes conform to JIS-10K, ANSI & DIN standards.

Gear Type (350A～600A)

Unit : mm

Size A	Size B	L	ϕ D	H1	H2	LH	Flange JIS10K ϕ C	JIS10K n-ϕh	JIS10K Insert	ANSI ϕ C	ANSI n-ϕh	ANSI Insert	DIN ϕ C	DIN n-ϕh	DIN Insert	Weight(kg/unit) PVC	PP	PVDF
350	14	129	535	105	325	300	445	16-25	–	476.2	12-29	–	460	16-22	–	39.0	37.0	51.3
400	16	169	597	130	350	300	510	16-27	–	540.0	16-29	–	515	16-26	–	46.4	44.5	61.0
450	18	179	635	155	370	300	565	20-27	M24	578.0	16-32	UNC1-1/8	565	20-26	M24	81.3	78.4	104.0
500	20	190	700	155	410	407	620	20-27	M24	635.0	20-32	UNC1-1/8	620	20-26	M24	98.1	95.0	125.0
600	24	209	815	155	465	407	730	24-33	M30	749.0	20-35	UNC1-1/4	725	20-30	M27	144.0	140.0	181.0

· Handle will be full-open/full close by 12.5 times for 350-400A,16 times for 450-600A.
· Valve flange in sizes 350A & 400A is universal type and bolt holes conform to JIS-10K, ANSI & DIN standards.

Flange | TS Socket | Thread | Butt

JIS | ANSI / ASME | DIN

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0 ~ 50
PP	0 ~ 80
PVDF	0 ~ 100

ESLON CHECK VALVE SWING TYPE

Feature

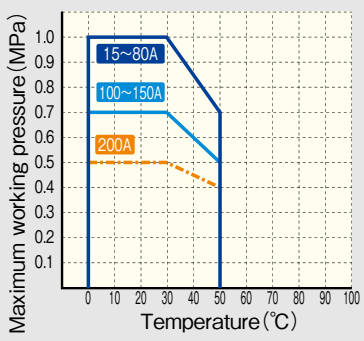
- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior durability and high pressure resistance.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Light weight in 1/4 - 1/5 of cast-iron valve provides easier handling and installation.

⚠ Important Notes

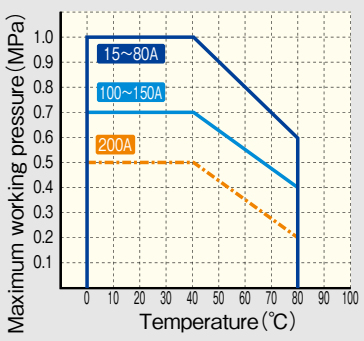
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.
- Match the arrow on the valve body to the flow direction when install the valve, For horizontal piping, install the valve with bonnet upward

Maximum Working Pressure - Temperature Rating

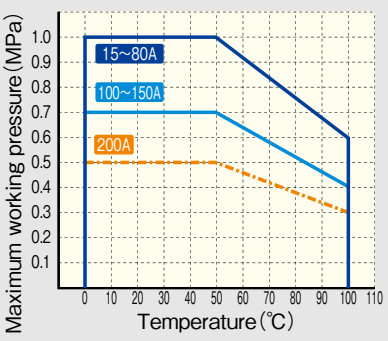
Body material : PVC



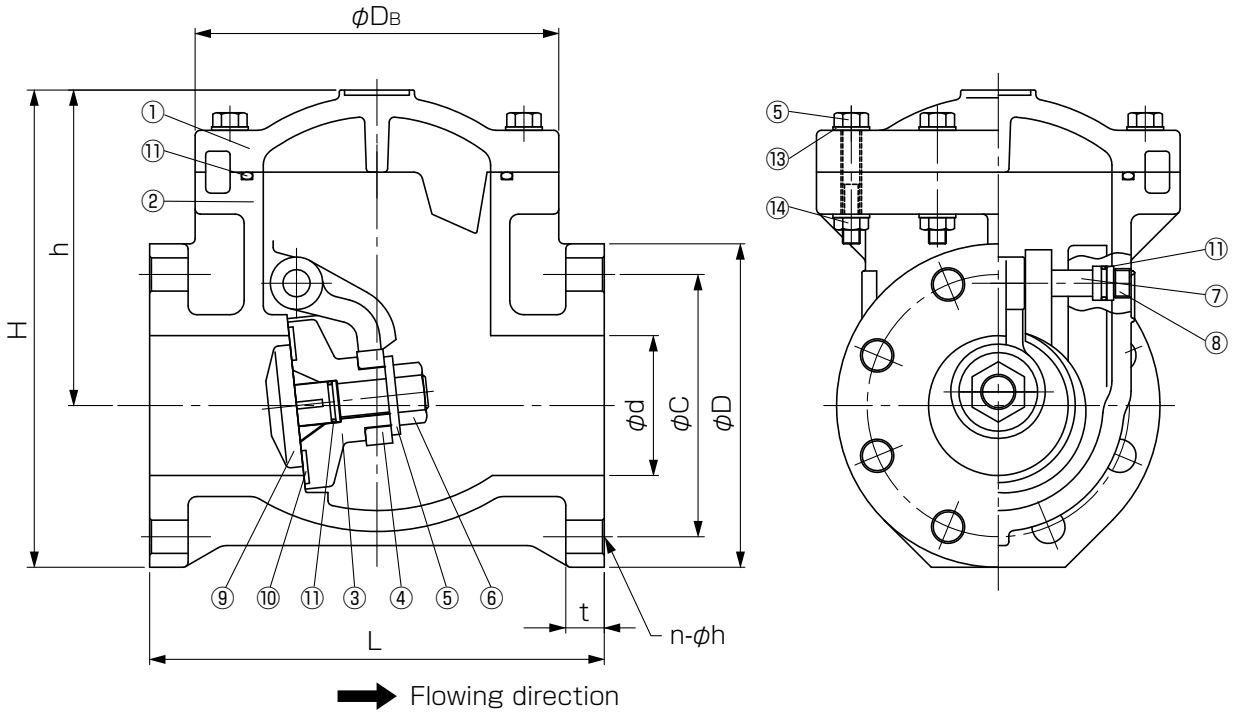
Body material : PP



Body material : PVDF



Figure



Parts List

No.	Part Name	Q'TY	Material	No.	Part Name	Q'TY	Material
1	Cover	1	● PVC ● PP ● PVDF	9	Gasket Holder*	1	● PVC ● PP ● PVDF
2	Body	1		10	Gasket	1	● EPDM ● PTFE
3	Disc	1		11	O-Ring	1	● EPDM ● FKM
4	Arm	1		12	Hexagon Bolt	6	SUS304
5	Washer	1		13	Washer	12	SUS304
6	Hexagon Nut	1		14	Hexagon Nut	6	SUS304
7	Shaft	1					
8	Plug	1					

* PP body in sizes 15-25A & 150A, 200A; Gasket Holder is PVDF

Size

Unit : ㎜

Size A	Size B	d	L	H	h	DB	FLANGE JIS10K φD	JIS10K φC	JIS10K n-φh	JIS10K t	ANSI φD	ANSI φC	ANSI n-φh	ANSI t	DIN φD	DIN φC	DIN n-φh	DIN t	Weight(kg/unit) PVC	PP	PVDF
15	1/2	21	140	143	93	112	100	70	4-15	14	–	–	–	–	–	–	–	–	1.0	0.8	1.3
20	3/4	21	140	143	93	112	100	75	4-15	14	100.0	70.0	4-16	14	105	75.0	4-14	14	1.0	0.8	1.3
25	1	25	160	180	118	132	125	90	4-19	14	108.0	79.5	4-16	14	115	85.0	4-14	14	1.6	1.3	2.2
32	1 1/4	40	180	206	136	148	140	100	4-19	18	127.0	89.5	4-16	18	140	100.0	4-18	18	2.7	1.9	3.3
40	1 1/2	40	180	206	136	148	140	105	4-19	18	127.0	98.5	4-16	18	140	110.0	4-18	18	2.7	1.9	3.3
50	2	51	200	229	152	180	155	120	4-19	20	152.0	120.5	4-19	20	165	125.0	4-18	20	3.6	3.0	4.5
65	2 1/2	67	240	254	166	200	175	140	4-19	22	178.0	139.5	4-19	22	185	145.0	4-18	22	4.8	3.8	6.0
80	3	80	260	270	178	208	185	150	8-19	22	190.5	152.5	4-19	22	200	160.0	8-18	22	5.8	4.3	7.5
100	4	100	300	318	213	265	210	175	8-19	24	229.0	190.5	8-19	24	220	180.0	8-18	24	9.4	7.3	11.8
125	5	125	350	372	247	330	250	210	8-23	24	254.0	216.0	8-23	24	250	210.0	8-18	24	16.4	12.7	21.0
150	6	150	400	420	280	375	280	240	8-23	26	280.0	241.5	8-23	26	285	240.7	8-22	26	20.1	16.0	26.0
200	8	200	500	494	329	425	330	290	12-23	30	343.0	298.5	8-23	30	340	295.0	8-22	30	31.7	27.0	44.0

1. Size 15A is same as 20A and Size 32A is same as 40A,it is fabricated to long bolt hole of the flange.

■ Minimum operating pressure(Gasket:EPDM)

Unit : kPa

Size(A)		15	20	25	32	40	50	65	80	100	125	150	200
Vertical piping	Min.opened pressure	10											
	Min.closed pressure	30										40	
Horizontal piping	Min.opened pressure	10											
	Min.closed pressure	30					40					50	

※ The pressure in the above table has tolerance.

Flange | TS Socket | Thread | Butt

JIS | ANSI / ASME / ASTM | DIN※

※ DIN:TS/Threaded Socket available

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50
HT·CPVC	0～80

Flange

TS Socket·Thread

ESLON CHECK VALVE BALL TYPE

Feature

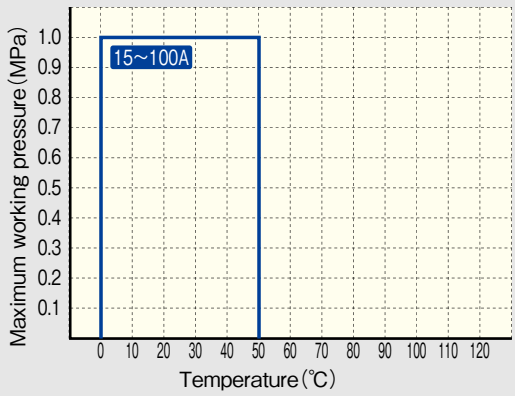
- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Easy maintenance by detaching union nut.

⚠ Important Notes

- In the condition of low flow rate or frequent flow rate fluctuation, the ball might vibrate in the body, and might cause sound or damage of valve. Eslon check valve swing type or lift type may be usable in those cases.
- Turbulent flow might disable checking by irregular ball bouncing.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.
- Valve can be installed both vertically and horizontally. Match the arrow on the valve body to the flow direction when install the valve with bonnet upward.

Maximum Working Pressure - Temperature Rating

Body material : PVC



Body material : HT・CPVC

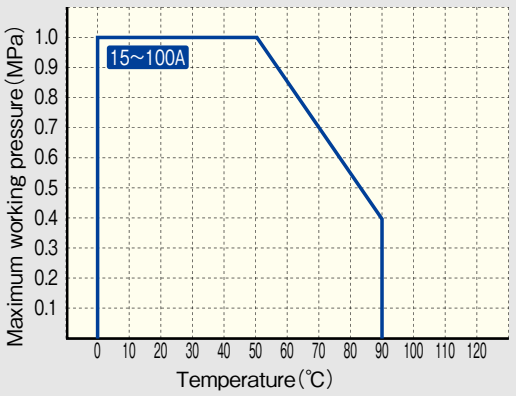
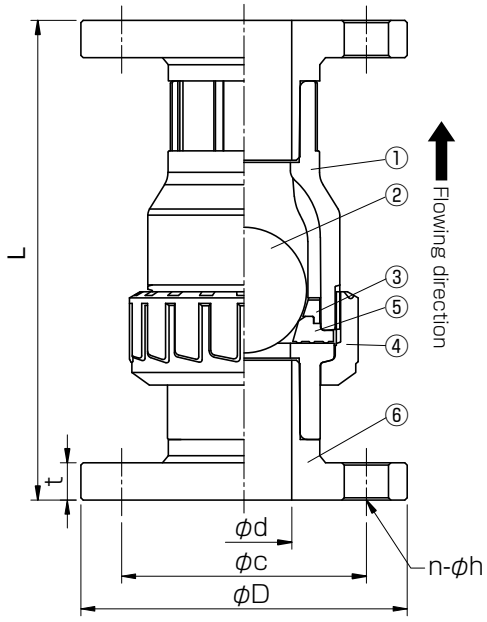
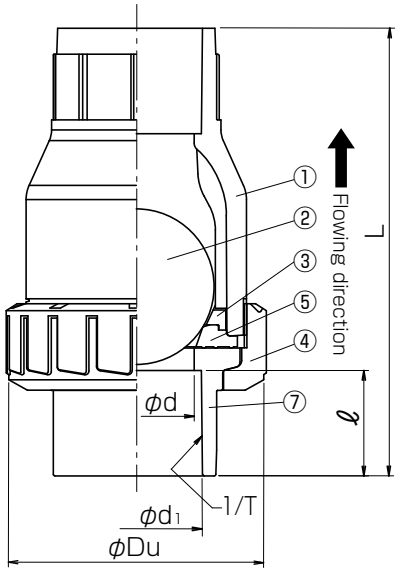


Figure (Flange Type・TS Socket Type・Thread Type)

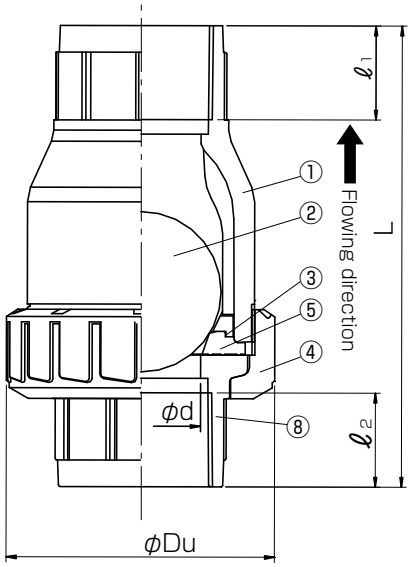
● Flange



● TS Socket



● Thread



Parts List

No.	Part Name	Q'TY	Material
1	Body	1	●PVC ●HT(JIS:Brown) ●CPVC (ASTM・DIN:Gray)
2	Ball	1	
3	Ring	1	
4	Union nut	1	
5	Seat	1	● EPDM ● FKM
6	Flange	2	●PVC ●HT(JIS:Brown) ●CPVC(ASTM・DIN:Gray)
7	TS socket	1	●PVC ●HT(JIS:Brown) ●CPVC(ASTM・DIN:Gray)
8	Thread	1	●PVC

Size

Flange Type・TS Socket Type・Thread Type

Unit : ㎜

Size A	Size B	d	Flange JIS10K L	JIS10K ϕD	JIS10K ϕC	JIS10K n-ϕh	JIS10K t	ANSI L	ANSI ϕD	ANSI ϕC	ANSI n-ϕh	ANSI t
15	1/2	16	135	95	70	4-15	14	145	89	60.5	4-16	11.5
20	3/4	20	160	100	75	4-15	14	169	98	70.0	4-16	13.0
25	1	25	170	125	90	4-19	14	183	108	79.5	4-16	14.5
32	1 1/4	32	205	135	100	4-19	16	231	119	89.0	4-16	17.6
40	1 1/2	40	205	140	105	4-19	16	232	127	98.5	4-16	17.5
50	2	50	230	155	120	4-19	20	264	152	120.5	4-19	19.5
65	2 1/2	65	398	175	140	4-19	22	319	178	139.5	4-19	22.5
80	3	78	425	185	150	8-19	22	352	191	152.5	4-19	24.0
100	4	102	584	210	175	8-19	24	461	229	190.5	8-19	24.0

■ Minimum operating pressure (Gasket:EPDM)

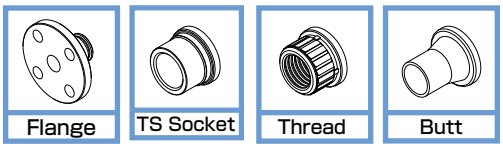
Unit : kPa

Size(A)		15	20	25	32	40	50	65	80	100
Vertical piping	Min.opened pressure	5			10					
	Min.closed pressure	30								50
Horizontal piping	Min.opened pressure	1			2					
	Min.closed pressure	30								50

※ The pressure in the above table has tolerance.

Unit : ㎜

TS socket JIS L	JIS ϕd1	JIS ℓ	ASTM L	ASTM ϕd1	ASTM ℓ	DIN L	DIN ϕd1	DIN ℓ	Thread JIS : Rc ℓ1	JIS : Rc ℓ2	JIS : Rc L	ANSI : NPT ℓ1,ℓ2	ANSI : NPT L	DIN:Rc、Rp ℓ1,ℓ2	DIN:Rc、Rp L	ϕDu	Weight(kg/unit) PVC Flange	PVC TS,Thread	HT(CPVC) Flange	HT(CPVC) TS
98	22.3	22	95	21.54	22.2	83	20.3	16	18.0	18	88	16.5	88	15.0	88	49	0.5	0.1	0.5	0.1
118	26.3	25	110	26.87	25.4	99	25.3	19	21.0	18	106	17.0	106	16.5	106	59	0.6	0.2	0.6	0.2
124	32.3	29	119	33.65	28.6	106	32.3	22	24.0	23	112	21.0	112	19.0	112	67	1.0	0.3	1.0	0.3
153	38.4	32	153	42.42	31.8	149	40.3	26	30.8	31	152	22.0	149	22.0	149	98	1.6	0.6	1.6	0.6
153	48.5	35	151	48.56	35	142	50.3	31	31.0	25	144	22.0	144	22.0	144	98	1.6	0.5	1.6	0.5
180	60.6	38	172	60.63	38.1	173	63.3	38	38.0	30	172	23.0	172	26.0	172	120	2.4	0.8	2.4	0.8
259	76.6	61	218	73.38	44.5	218	75.3	44	44.5	32	226	31.0	218	31.0	218	150	4.6	2.2	4.6	2.2
281	89.6	64	242	89.31	47.6	243	90.3	51	37.0	37	251	37.0	242	37.0	243	150	5.0	2.4	5.0	2.5
404	114.7	84	340	114.76	57.2	344	110.4	61	55.0	45	346	35.0	335	40.0	335	228	13.0	6.8	13.0	6.8



JIS | ANSI / ASME / ASTM | DIN

Operating Temperature(℃)

PVC	0～50	PP	0～80
HT	0～90	PVDF	0～100

Flange　　TS Socket

ESLON TRUE UNION CHECK VALVE BALL TYPE

Feature

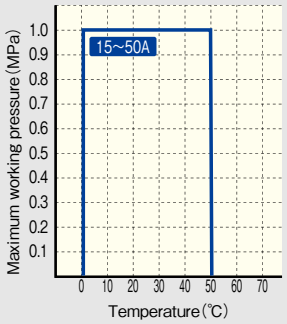
- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Easy maintenance by detaching union nut.
- Able to dismount the valves from the connected pipe by screwed off the both side of union nut.

⚠ Important Notes

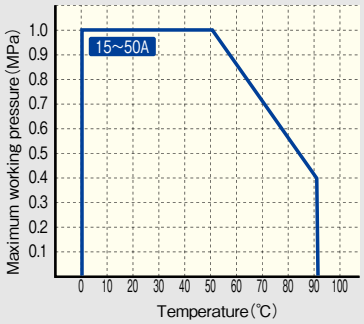
- In the condition of low flow rate or frequent flow rate fluctuation, the ball might vibrate in the body, and might cause sound or damage of valve. Eslon check valve swing type or lift type may be usable in those cases.
- Turbulent flow might disable checking by irregular ball bouncing.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.
- Valve can be installed both vertically and horizontally. Match the arrow on the valve body to the flow direction when install the valve with bonnet upward.

Maximum Working Pressure - Temperature Rating

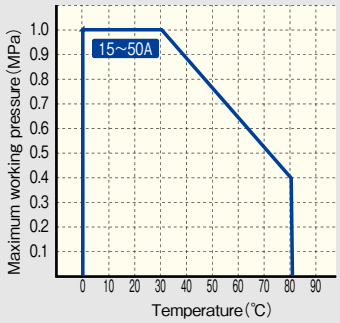
Body material : PVC



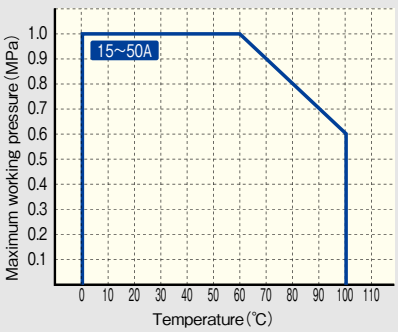
Body material : HT



Body material : PP



Body material : PVDF



■ Minimum operating pressure (Gasket:EPDM)

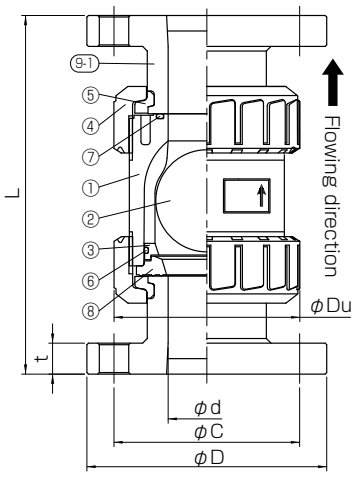
Unit : kPa

Size(A)		15	20	25	32	40	50
Vertical piping	Min.opened pressure	5			10		
	Min.closed pressure	30					
Horizontal piping	Min.opened pressure	1			2		
	Min.closed pressure	30					

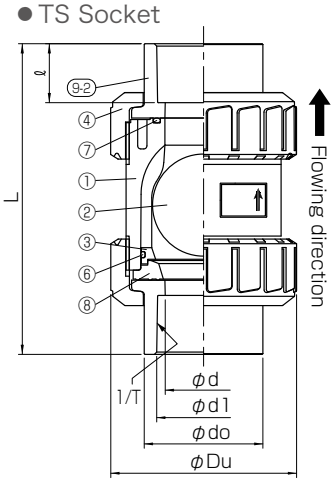
※ The pressure in the above table has tolerance. It's available for PVC,HT and PVDF only.

Figure(Flange Type·TS Socket Type·Thread Type·Butt Type·Socket Welding Type)

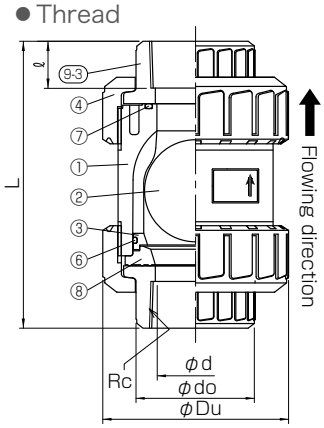
● Flange



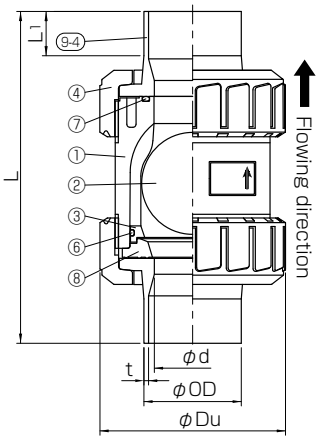
● TS Socket



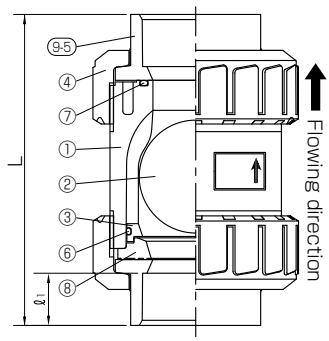
● Thread



● Butt type



● Socket Welding



■ Parts List

No.	Part Name	Q'TY	Material
1	Body	1	●PVC ●HT(JIS:Brown) ●PP ●PVDF
2	Ball	1	
3	Seat Carrier	1	
4	Union nut	2	
5	Set ring	2	
6	Seat Carrier O-Ring	1	●EPDM ●FKM
7	Union O-ring	1	
8	Seat	1	
9-1	Flange	2	●PVC ●HT(JIS:Brown) ●PP ●PVDF
9-2	Socket	2	●PVC ●HT(JIS:Brown)
9-3	Threaded Socket	2	●PVC ●PVDF
9-4	Butt Spigot Type	2	●PP ●PVDF
9-5	Socket Welding	2	●PP

Flange Type · TS Socket Type · Butt Type · Thread Type · Socket Welding Type

Unit : mm

Size		d	Flange													
A	B		φDu	L	JIS10K				ANSI				DIN			
					φD	φC	n-φh	t	φD	φC	n-φh	t	φD	φC	n-φh	t
15	1/2	16	49	135	95	70	4-15	14	89.0	60.5	4-16	11.5	95	65	4-14	11
20	3/4	20	59	160	100	75	4-15	14	98.0	70.0	4-16	13.0	105	75	4-14	12
25	1	25	67	170	125	90	4-19	14	108.0	79.5	4-16	14.5	115	85	4-14	14
32	1 1/4	32	81	177	135	100	4-19	16	117.5	89.0	4-16	16.0	140	100	4-18	15
40	1 1/2	40	98	205	140	105	4-19	16	127.0	98.5	4-16	17.5	150	110	4-18	16
50	2	50	120	230	155	120	4-19	20	152.0	120.5	4-19	19.5	165	125	4-18	18

Unit : mm

TS Socket																Butt Spigot					
φDu	JIS					ASTM					DIN					φDu	L	L1	φOD	t	
	L	φd1	1/T	ℓ	do	L	φd1	1/T	ℓ	do	L	φd1	1/T	ℓ	do					PP	PVDF
49	101	22.3	1/37	22	33	95	21.54	1/72	22.22	33	84	20.3	1/65	16	33	48	135	30	20	1.9	1.9
59	121	26.3	1/42	25	35	108	26.87	1/85	25.40	35	96	25.3	1/80	19	35	59	141	24	25	2.3	1.9
67	125	32.3	1/43	29	44	115	33.65	1/75	28.58	44	103	32.3	1/95	22	44	65	143	24	32	2.9	2.4
81	153	38.4	1/37	32	54	134	42.42	1/84	31.75	54	124	40.3	1/115	26	54	80	154	25	40	3.7	2.4
98	169	48.5	1/38	35	66	165	48.56	1/78	34.93	66	155	50.3	1/140	31	66	96	184	24	50	4.6	3.0
120	200	60.6	1/34	38	77	185	60.63	1/83	38.10	77	186	63.3	1/175	38	77	119	213	28	63	5.8	3.0

Unit : mm

Thread									Socket Welding		Weight (kg/unit)								
φDu	L		ℓ		do	Thread			L	ℓ1	PVC		HT		PP			PVDF	
	PVC	PVDF	PVC	PVDF		JIS,DIN	ANSI	DIN			Flange	TS,Thread	Flange	TS	Flange	Socket Welding	Butt	Flange	TS,Butt
						Rc	NPT	Rp											
49	90	92	18	20	30	1/2	1/2	1/2	98	17.5	0.4	0.2	0.5	0.2	0.3	0.1	0.1	0.5	0.2
59	106	105	18	22	35	3/4	3/4	3/4	103	19.0	0.5	0.2	0.6	0.3	0.4	0.3	0.2	0.7	0.3
67	112	120	23	24	44	1	1	1	109	21.0	0.8	0.3	0.9	0.4	0.5	0.3	0.2	1.0	0.5
81	132	134	23	25	54	1 1/4	1 1/4	1 1/4	127	23.5	1.0	0.4	1.2	0.6	0.7	0.4	0.3	1.4	0.7
98	158	164	25	28	65	1 1/2	1 1/2	1 1/2	155	26.5	1.7	1.1	1.8	1.2	1.1	0.8	0.7	2.2	1.5
120	186	194	30	30	77	2	2	2	181	30.5	2.4	1.4	2.6	1.7	1.5	1.1	0.9	3.0	1.9

Flange | TS Socket | Thread | Butt

JIS | ANSI / ASME / ASTM | DIN

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50

ESLON CHECK VALVE LIFT TYPE

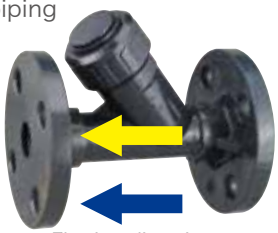
Feature

- Reliable checking performance in both horizontal and vertical direction as angle type.
- Easy maintenance by detaching union nut.
- Superior chemical & pressure resistance and durability.

⚠ Important Notes

- Valve can be installed both vertically and horizontally. Match the arrow on the valve body to the flow direction when install the valve with bonnet upward.

Horizontal piping



Vertical piping

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC

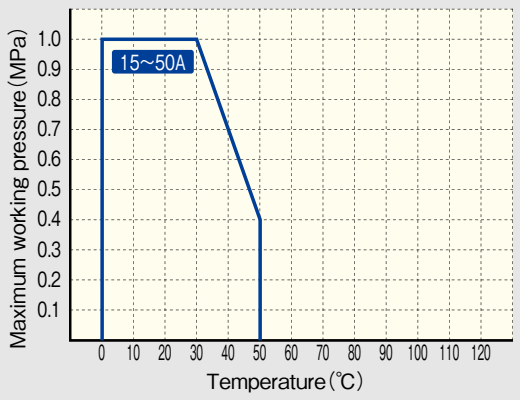
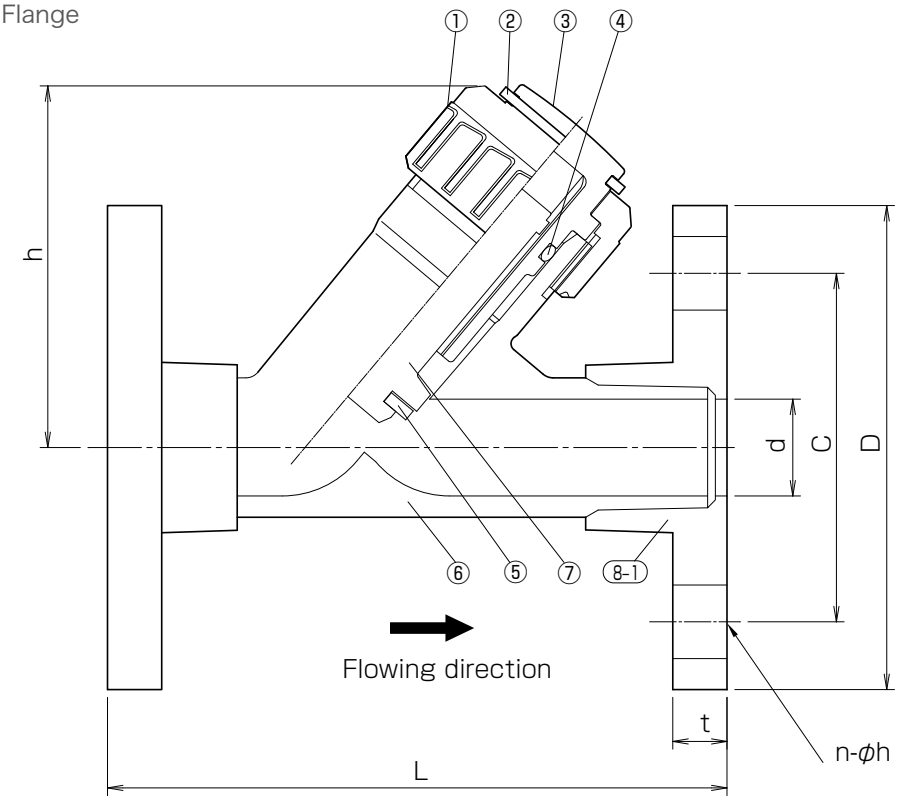


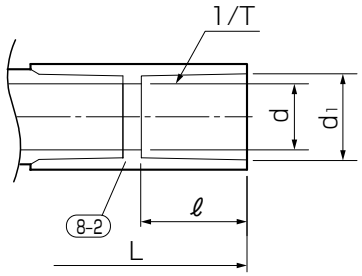
Figure (Flange Type・TS Socket Type・Thread Type)

● Flange

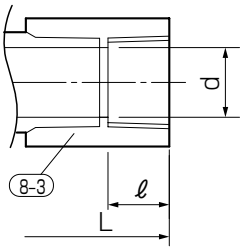


※Install the valve as bonnet upward.

● TS Socket



● Thread



Parts List

No.	Part Name	Q'TY	Material
1	Union Nut	1	PVC
2	Split Ring	1	PVC
3	Bonnet	1	PVC
4	Piston O-ring	1	● EPDM ● FKM
5	O-ring	1	
6	Body	1	PVC
7	Piston	1	PVC+SS
8-1	Flange	2	PVC
8-2	TS socket	2	PVC
8-3	Threaded	2	PVC

Size

Unit : ㎜

Size		d	h	Flange												Weight(kg/unit)	
A	B			L	JIS10K				ANSI				DIN				Flange	TS Socket Thread
					φ D	φ C	n-φh	t	φ D	φ C	n-φ h	t	φ D	φ C	n-φ h	t		
15	1/2	15	71	130	95	70	4-15	14	89	60.5	4-16	14	95	65	4-14	14	0.4	0.3
20	3/4	20	81	150	100	75	4-15	14	98	69.0	4-16	14	105	75	4-14	14	0.5	0.5
25	1	25	94	160	125	90	4-19	14	108	79.5	4-16	14	115	85	4-16	14	0.8	0.8
32	1 1/4	32	94	180	135	100	4-19	16	117	89.0	4-16	16	140	100	4-18	16	1.0	0.8
40	1 1/2	40	118	200	140	105	4-19	16	127	98.5	4-16	16	150	110	4-18	16	1.4	1.0
50	2	50	137	234	155	120	4-19	20	152	120.5	4-20	20	165	125	4-18	20	2.2	1.2

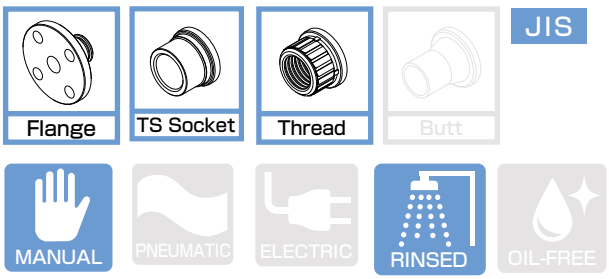
Unit : ㎜

Size		TS socket					Thread		Union	
A	B	JIS					JIS:Rc		JIS	
		L	φ d1	1／T	ℓ	φ D	L	ℓ	L	ℓ
15	1/2	194	22.4	1／34	30	29	146	16	192	22
20	3/4	219	26.5	1／34	35	33	169	19	212	25
25	1	243	32.6	1／34	40	40	192	22	248	29
32	1 1/4	270	38.6	1／34	44	46	230	26	287	32
40	1 1/2	312	48.7	1／37	55	57	250	27	302	35
50	2	363	60.8	1／37	63	70	290	30	364	38

■ Minimum operating pressure(Gasket:EPDM) Unit : kPa

Size(A)		15	20	25	32	40	50
Vertical piping	Min.opened pressure	2.0				3.0	
	Min.closed pressure	50					
Horizontal piping	Min.opened pressure	2.0				3.0	
	Min.closed pressure	50					

※ The pressure in the above table has tolerance.



Operating Temperature(℃)

PVC	0～50

(15A～50A)

(65A～100A)

ESLON GLOBE VALVE

Feature

- Superior chemical resistance and durability as unique plug sealing and non-contact stem with medium.
- Built in indicator for open-close position and preventive mechanism for over-tightening (15～50A)
- Flat at the bottom of flange for prevention of tumbling and for better workability in plumbing.

⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC

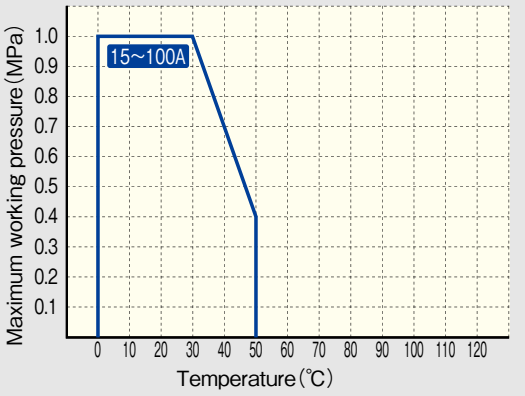
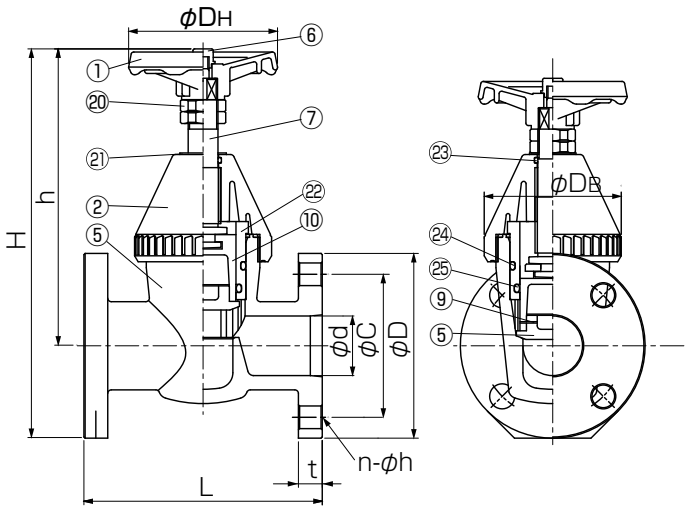


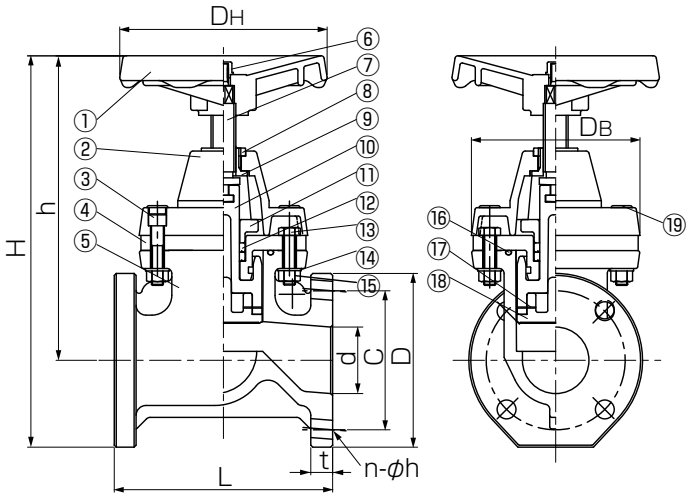
Figure (Flange Type・TS Socket Type・Thread Type)

● Flange(15A～50A)

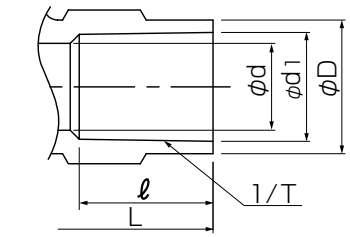
[Full Opened] [Full Closed]



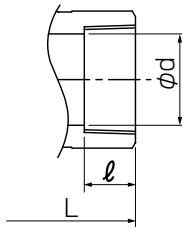
● Flange(65A～100A)



● TS Socket



● Thread



Parts List

No.	Part Name	Q'TY	Material	No.	Part Name	Q'TY	Material
1	Handle	1	ABS	13	Hexagon Bolt	4	Ni plated SCM
2	Bonnet	1	PVC	14	Washer	8	SUS304
3	Bolt	4	Ni plated SCM	15	Hexagon Nut	8	SUS304
4	Bonnet	1	PVC	16	O-ring	1	EPDM
5	Body	1	PVC	17	Set Pin	—	PVC
6	Handle Nut	1	PVC	18	Disc	1	PP
7	Stem	1	C3601	19	Bolt Cap	1	PP
8	Set Nut	1	C3601	20	Stopper Nut	2	PVC
9	Sleeve	1	C3601	21	Thrust Washer	1	PTFE
10	Disk Holder	1	PVC	22	Bush	1	PVC
11	Gasket Stopper	1	PP	23	O-ring	1	NBR
12	Y Gasket	2	EPDM	24,25	O-ring	1	● EPDM ● FKM

・Thrust washer is assembled for size 40A and 50A.

Size

Flange Type

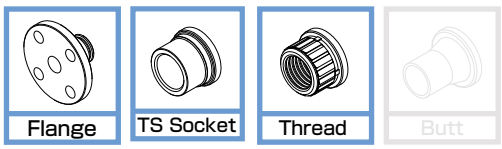
Unit : mm

Size A	Size B	d	L	H (max)	h (max)	D_H	D_B	Flange(JIS10K) D	C	n-φh	t	Weight (kg/unit)
15	1/2	15	85	199	152	65	52	95	70	4-15	14	0.5
20	3/4	20	95	215	165	65	62	100	75	4-15	14	0.6
25	1	25	110	239	177	80	72	125	90	4-19	14	0.9
32	1 1/4	30	135	272	205	80	83	140	100	4-19	16	1.3
40	1 1/2	40	190	304	234	125	105	140	105	4-19	16	1.9
50	2	50	200	327	249	125	115	155	120	4-19	20	2.6
65	2 1/2	65	220	390	303	150	170	175	140	4-19	22	5.5
80	3	80	240	442	350	210	189	185	150	8-19	22	7.5
100	4	100	290	500	395	210	231	210	175	8-19	24	11.0

TS Socket Type・Thread Type

Unit : mm

Size A	Size B	d	L TS	L Thread	H (max) TS	H (max) Thread	h (max) TS	h (max) Thread	D_H	D_B	TS Socket d_1	TS Socket 1/T Taper	TS Socket ℓ	Thread Size	Thread ℓ	Weight(kg/unit) TS	Weight(kg/unit) Thread
15	1/2	16	110	85	169	169	152	152	65	52	22.4	1/34	30	Rc 1/2	15	0.3	0.3
20	3/4	21	130	95	186	186	165	165	65	62	26.5	1/34	35	Rc 3/4	17	0.4	0.4
25	1	26	150	110	201	201	177	177	80	72	32.6	1/34	40	Rc 1	20	0.5	0.5
32	1 1/4	32	–	135	–	234	–	205	80	83	–	–	–	Rc 1 1/4	22	–	0.8
40	1 1/2	41	–	140	–	257	–	234	125	105	–	–	–	Rc 1 1/2	25	–	1.3
50	2	50	–	180	–	298	–	249	125	115	–	–	–	Rc 2	28	–	1.8



JIS | ANSI / ASME / ASTM | DIN

Operating Temperature(℃)

PVC	0～50

6 Colors Handle for Easy Maintenance

ESLON YP BALL VALVE

Feature

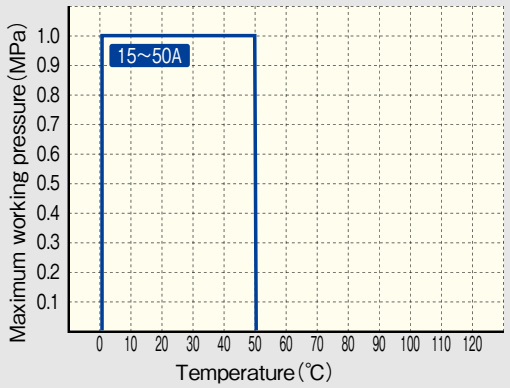
- Unique flow channel design of the ball enables precise flow rate control.
- High rangeability over 200 and equal percentage flow characteristic.
- Large visual indicator for flow rate control.

⚠ Important Notes

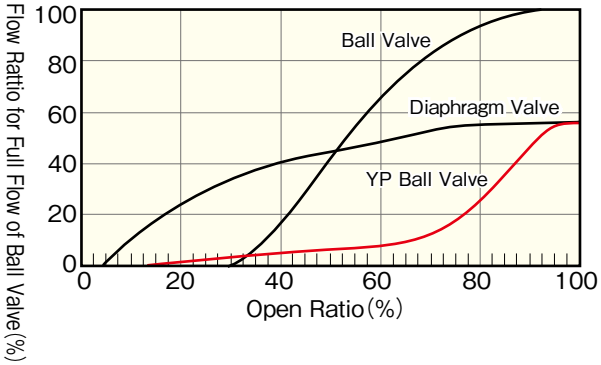
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC



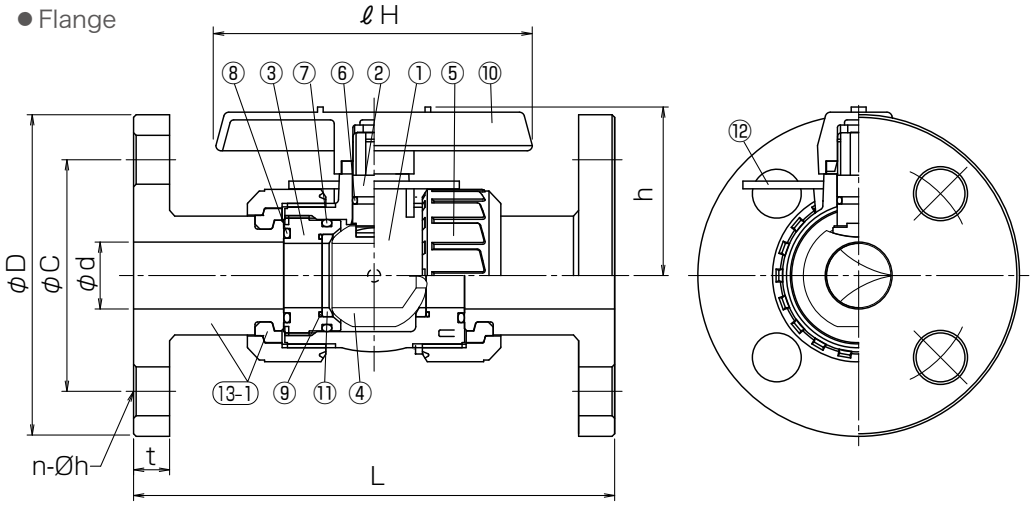
Flow Characteristic of YP Ball Valve



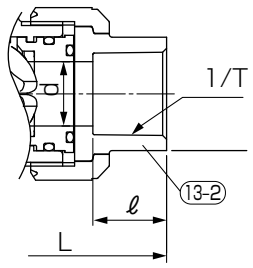
※Comparison of Cv Values at various opening degree when that of 15A Ball Valve at full opened as 100.

Figure (Flange Type・TS Socket Type・Thread Type)

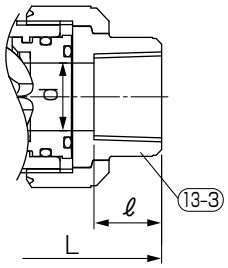
● Flange



● TS Socket



● Thread



Parts List

No.	Part Name		Q'TY	材　質
1	Body		1	● PVC
2	Stem		1	
3	Ball Stopper		1	
4	Ball		1	
5	Union Nut		2	
6	Stem O-Ring	15-32A	1	● EPDM ● FKM
		40,50A	2	
7	Ball Stopper O-Ring		1	
8	Union O-ring		2	
9	Ball Seat O-Ring		2	
10	Handle		1	ABS
11	Ball Seat		2	PTFE
12	Open position display plate		1	PVC
13-1	Flange		2	PVC
13-2	TS socket		2	PVC
13-3	Threaded		2	PVC

Size

Flange Type

Unit : ㎜

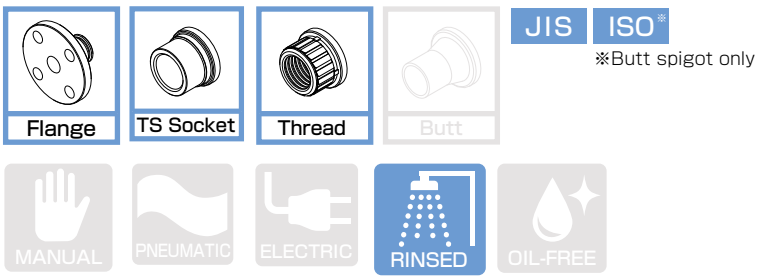
Size		φ d	h	LH	φ Du	Flange												
A	B					L	JIS10K				ANSI				DIN			
							φ D	φ C	n-φ h	t	φ D	φ C	n-φ h	t	φ D	φ C	n-φ h	t
15	1/2	15	50	95	49	143	95	70	4-15	14	89.0	60.5	4-16	11.5	95	65	4-14	11
20	3/4	20	53	95	59	172	100	75	4-15	14	98.0	70.0	4-16	13.0	105	75	4-14	12
25	1	25	66	123	67	187	125	90	4-19	14	108.0	79.5	4-16	14.5	115	85	4-14	14
32	1 1/4	32	74	123	81	190	135	100	4-19	16	117.5	89.0	4-16	16.0	140	100	4-18	15
40	1 1/2	40	100	152	98	212	140	105	4-19	16	127.0	98.5	4-16	17.5	150	110	4-18	16
50	2	50	107	152	120	234	155	120	4-19	20	152.0	120.5	4-19	19.5	165	125	4-18	18

TS Socket Type・Thread Type

Unit : ㎜

Size		TS Socket						Female Thread						Weight(kg/unit)	
A	B	JIS		ASTM		DIN		JIS,DIN(Rc)		ANSI(NPT)		DIN(Rp)		Flange	Socket,Thread
		L	ℓ	L	ℓ	L	ℓ	L	ℓ	L	ℓ	L	ℓ		
15	1/2	109	22	103	22.22	92	16	97	18	97	18	97	18	0.4	0.2
20	3/4	132	25	119	25.40	107	19	117	18	117	18	117	18	0.6	0.3
25	1	143	29	133	28.58	121	22	128	23	128	23	128	23	0.9	0.4
32	1 1/4	166	32	147	31.75	137	26	146	23	146	23	146	23	1.2	0.6
40	1 1/2	175	35	171	34.93	161	31	163	25	163	25	163	25	1.7	1.1
50	2	203	38	188	38.10	189	38	188	30	188	30	188	30	2.6	1.6

※ The valve should be installed in correct flow direction according to the arrow marked on open position display plate.



JIS ISO※

※Butt spigot only

Operating Temperature(℃)

PVC	0～50
PP	10～70
PVDF	−30～100

ESLON RELIEF VALVE Type712

Feature

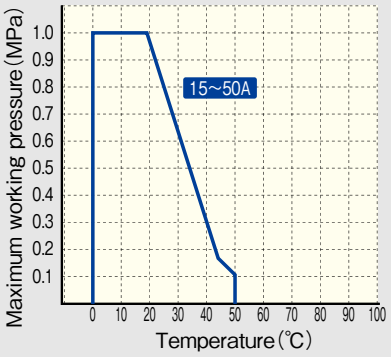
- De-pressure and prevent from the damage of piping line by excess pressure
- Pressure adjustment range of 0.03 - 1.0 MPa
- Reliable relief performance in both horizontal and vertical direction of pipe line
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.

⚠ Important Notes

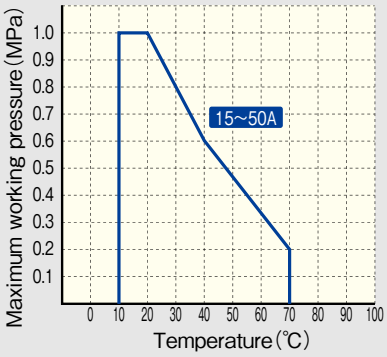
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

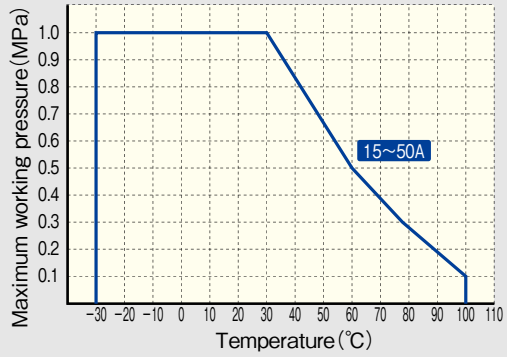
Body material : PVC



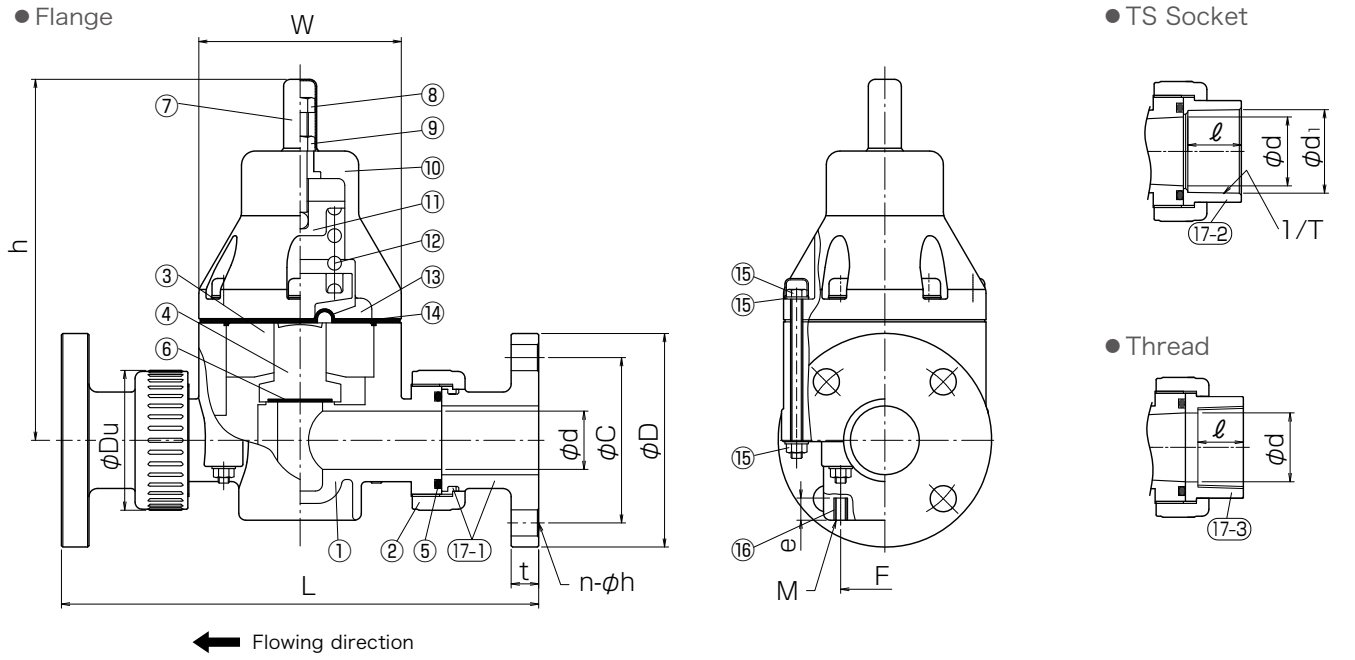
Body material : PP



Body material : PVDF



Figure（Flange Type・TS Socket Type・Thread Type）



Parts List

No.	Part Name	Q'TY	Material	No.	Part Name	Q'TY	Material
1	Body	1	● PVC ● PP ● PVDF	10	Bonnet	1	GF-PP
2	Union nut	2		11	Pressure plate	1	SS400+Ni plating
3	Separate disc	1	PVC	12	Pressure spring	1	Spring steel
4	Piston	1	PVC	13	Pressure disc	1	SUS304
5	O-ring	2	● EPDM ● FKM	14	Diaphragm	1	PTFE + EPDM
6	Gasket	1		15	Bolt,Nut,Washer	–	SUS304
7	Cover	1	PE	16	Fixing insert nut	1	SUS304
8	Adjust bolt	1	SUS304	17-1	Flange end,Set ring	2	● PVC ● PP ● PVDF
9	Lock nut	1	SUS304	17-2	TS socket	2	● PVC
				17-3	Threaded	2	● PVC ● PVDF

· For PVDF body type, sealing material is FKM.
· For PVDF body type, butt spigot is available,too. Contact us for more information.

Size

Flange Type

Unit : ㎜

Size		d	h	W	Fixing Insert Nut		Flange JIS10K						Weight(kg/unit)		
A	B				F	Mxe	L	ϕ D PVC	ϕ D PP,PVDF	C	n-ϕh	t	PVC	PP	PVDF
15	1/2	15	174	81	40	M6×16	224	95	92	70	4-15	14	1.2	0.9	1.5
20	3/4	20	202	107	46	M6×16	255	100	97	75	4-15	14	1.3	1.8	1.6
25	1	26	202	107	46	M6×16	269	125	122	90	4-19	14	2.5	2.0	2.9
32	1 1/4	32	262	147	65	M8×16	323	135	132	100	4-19	16	5.8	4.6	6.4
40	1 1/2	40	262	147	65	M8×16	338	140	137	105	4-19	16	6.0	4.7	6.6
50	2	50	262	147	65	M8×16	346	155	152	120	4-19	20	6.4	5.1	7.1

*ANSI,DIN:Please contact us

TS Socket Type・Thread Type

Unit : ㎜

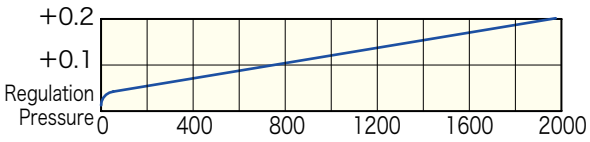
Size		d	h	W	Fixing Insert Nut		TS socket JIS				Thread JIS			Weight(kg/unit)	
A	B				F	Mxe	L	ϕ d1	1／T	ℓ	L	Rc	ℓ	PVC	PVDF
13	3/8	10	172	81	40	M6×16	172	18.3	1／31	19	158	Rc3／8	15	0.9	1.1
15	1/2	15	172	81	40	M6×16	174	22.3	1／37	22	161	Rc1／2	17	1.0	1.2
20	3/4	20	202	107	46	M6×16	213	26.3	1／42	25	195	Rc3／4	18	2.0	2.2
25	1	26	202	107	46	M6×16	220	32.3	1／43	29	201	Rc1	18	2.0	2.3
32	1 1/4	32	262	147	65	M8×16	278	38.4	1／37	32	267	Rc1·1／4	23	5.1	5.6
40	1 1/2	40	262	147	65	M8×16	284	48.5	1／38	35	277	Rc1·1／2	23	5.2	5.7
50	2	50※	262	147	65	M8×16	293	60.6	1／34	38	292	Rc2	28	5.3	5.8

*TS socket:54 *ASTM,ANSI,DIN:Please contact us

Pressure characteristic at Inlet Side

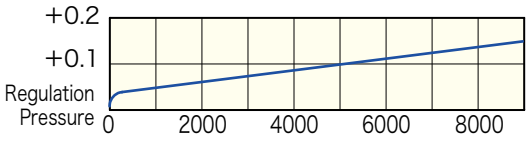
The below diagram show the relation of flow rate and pressure increase at inlet. Pressure at inlet increase with increasing flow rate.

Pressure increase at inlet(MPa)



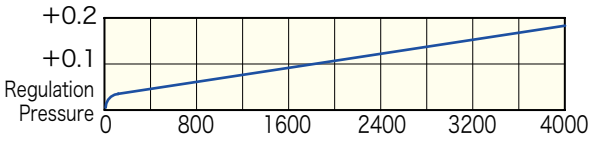
15A:Flow Rate(ℓ/h)

Pressure increase at inlet(MPa)



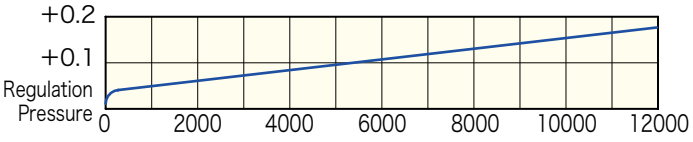
32A:Flow Rate(ℓ/h)

Pressure increase at inlet(MPa)



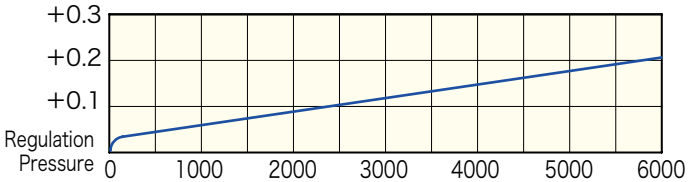
20A:Flow Rate(ℓ/h)

Pressure increase at inlet(MPa)



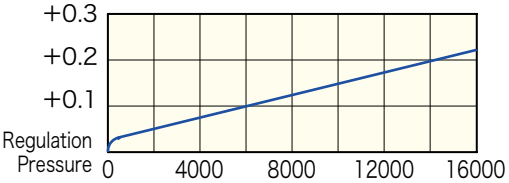
40A:Flow Rate(ℓ/h)

Pressure increase at inlet(MPa)

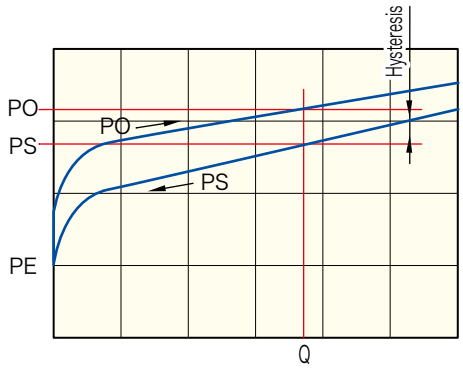


25A:Flow Rate(ℓ/h)

Pressure increase at inlet(MPa)



50A:Flow Rate(ℓ/h)

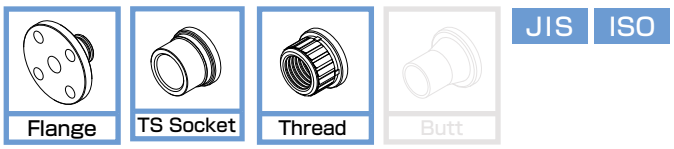


PE: Regulation pressure

PS: Pressure at closed point

PO: Pressure at opened point

Q : Flow Rate



JIS ISO

Operating Temperature(℃)

PVC	0～50
PP	10～70
PVDF	−30～100

with pressure gauge

ESLON PRESSURE REGULATION VALVE Type 755

Feature

- Diaphragm type of pressure regulation valve adjusts outlet pressure in high accuracy(±0.02MPa)
- Pressure adjustment range of 0.1-0.9 MPa.
- Reliable pressure relief performance in both horizontal and vertical pipe line.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Integrated pressure gauge type available.

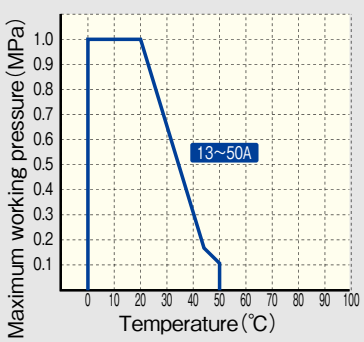
Pressure gauge(Display/Connection thread)
- Standard(SPC/C3604BD)
- Filled with glycerin (SUS304/C3604BD)
- SUS(SPC/SUS304)
- SUS+Glycerin(SUS304/SUS304)

⚠ Important Notes

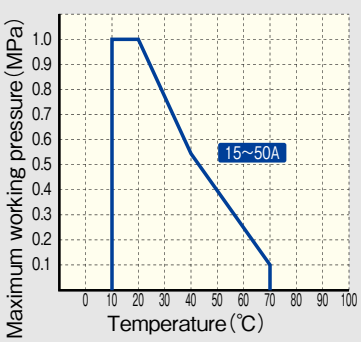
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

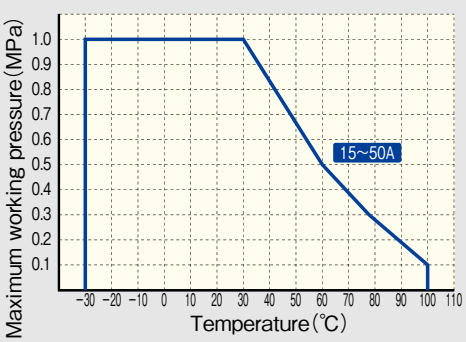
Body material : PVC



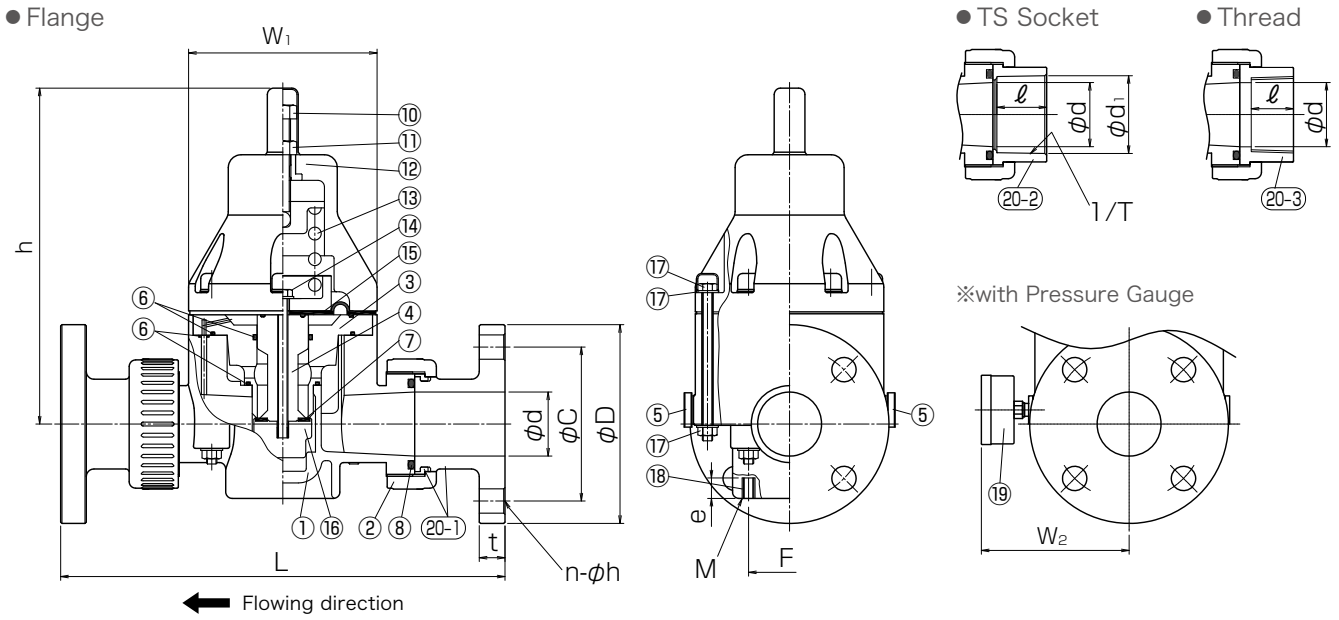
Body material : PP



Body material : PVDF



Figure（Flange Type・TS Socket Type・Thread Type）



Parts List

No.	Part Name	Q'TY	Material	No.	Part Name	Q'TY	Material
1	Body	1	● PVC ● PP ● PVDF	12	Bonnet	1	GF-PP
2	Union nut	2		13	Adjust spring	1	Spring steel
3	Separate disc	1		14	Hexagonal bolt	1	SUS304
4	Piston	1		15	Diaphragm	1	PTFE + EPDM
5	Plug	2		16	Piston head	1	PVDF
6	O-ring	4	● EPDM ● FKM	17	Bolt,Nut,Washer	–	SUS304
7	Packing	1		18	Fixing insert nut	2	SUS304
8	Union O-ring	2		19	Pressure gauge	1	–
9	Cover	1	PE	20-1	Flange end,Set ring	2	● PVC ● PP ● PVDF
10	Adjust bolt	1	SUS304	20-2	TS socket	2	● PVC
11	Lock nut	1	SUS304	20-3	Threaded	2	● PVC ● PVDF

・For PVDF body type, sealing material is FKM.
・For PVDF body type, butt spigot is available,too. Contact us for more information.

Size

Flange Type

Unit : ㎜

Size A	Size B	d	L	H	h	W1	W2	Fixing Insert Nut F	Fixing Insert Nut M×e	Flange (JIS10K) D	Flange (JIS10K) φc	Flange (JIS10K) n-φh	Flange (JIS10K) t	Weight(kg/unit) PVC	Weight(kg/unit) PP	Weight(kg/unit) PVDF
15	1/2	15	224	220	172	81	92	40	M6×16	95	70	4-15	14	1.3	1.0	1.5
20	3/4	20	255	252	202	107	92	46	M6×16	100	75	4-15	14	2.3	1.9	2.6
25	1	26	269	265	202	107	92	46	M6×16	125	90	4-19	14	2.6	2.1	2.8
32	1 1/4	32	323	330	262	147	112	65	M8×16	135	100	4-19	16	5.8	4.7	6.4
40	1 1/2	40	338	332	262	147	112	65	M8×16	140	105	4-19	16	6.0	4.8	6.6
50	2	50	346	340	262	147	112	65	M8×16	155	120	4-19	20	6.4	5.1	7.1

*ANSI,DIN:Please contact us

TS Socket Type・Thread Type

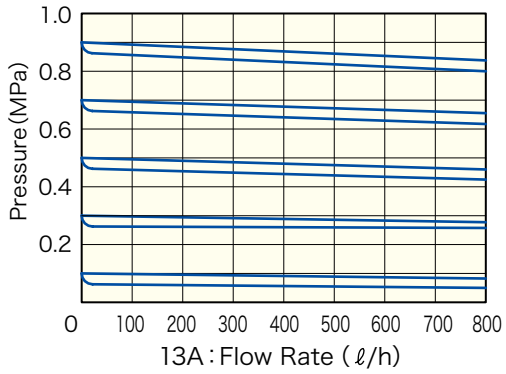
Unit : ㎜

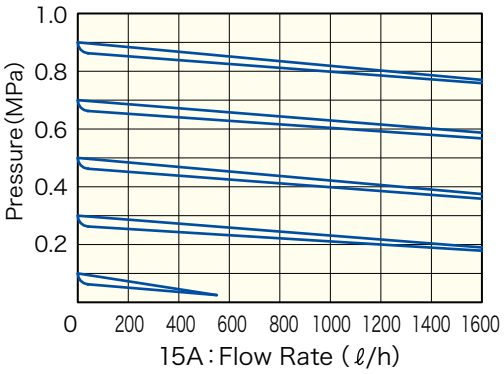
Size A	Size B	d	H	h	W1	W2	Fixing Insert Nut F	Fixing Insert Nut M×e	TS Socket L	TS Socket JIS d1	TS Socket JIS 1/T	TS Socket JIS ℓ	Thread JIS L	Thread JIS Rp	Thread JIS ℓ	Weight(kg/unit) PVC, PVDF
13	3/8	10	197	172	81	77	40	M6×16	172	18.3	1/31	19	158	Rp1/4	15	0.9
15	1/2	15	197	172	81	92	40	M6×16	174	22.3	1/37	22	161	Rp1/2	17	1.0
20	3/4	20	240	202	107	92	46	M6×16	213	26.3	1/42	25	195	Rp3/4	18	2.0
25	1	26	240	202	107	92	46	M6×16	220	32.3	1/43	29	201	Rp1	18	2.0
32	1 1/4	32	320	262	147	112	65	M8×16	278	38.4	1/37	32	267	Rp1・1/4	23	5.1
40	1 1/2	40	320	262	147	112	65	M8×16	284	48.5	1/38	35	277	Rp1・1/2	23	5.2
50	2	50	320	262	147	112	65	M8×16	293	60.6	1/34	38	292	Rp2	28	5.3

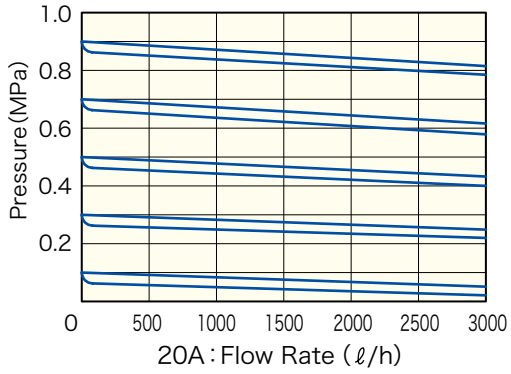
*ASTM,ANSI,DIN:Please contact us

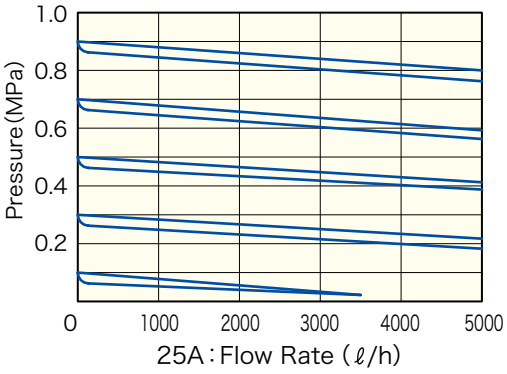
Pressure charactristic at outlet side

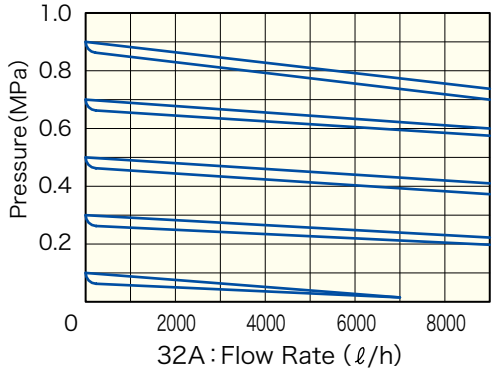
The below diagram show the relation of flow rate and pressure at outlet by each set pressure(0.1 / 0.3 / 0.5 / 0.7 / 0.9MPa). Pressure at outlet decrease with increasing flow rate.

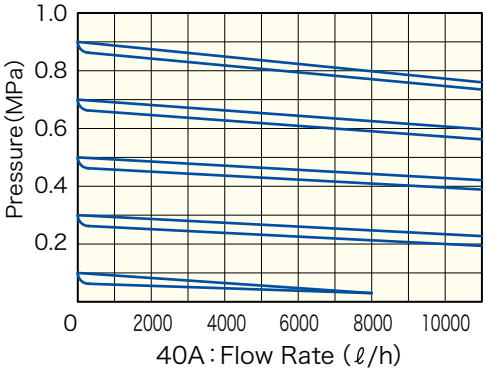


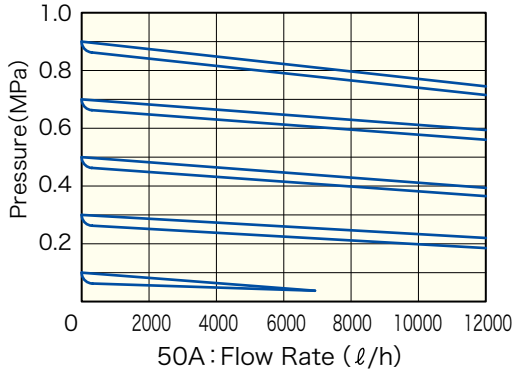


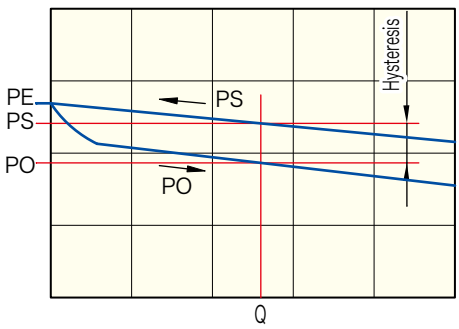












PE: Regulation pressure

PS: Pressure at closed point

PO: Pressure at opened point

Q : Flow Rate

Flange | TS Socket | Thread | Butt

JIS | ANSI / ASME / ASTM | DIN※

※ DIN: Flange type not available.

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50
HT·CPVC	0～90

Flange

TS Socket·Thread

ESLON FOOT VALVE

Feature

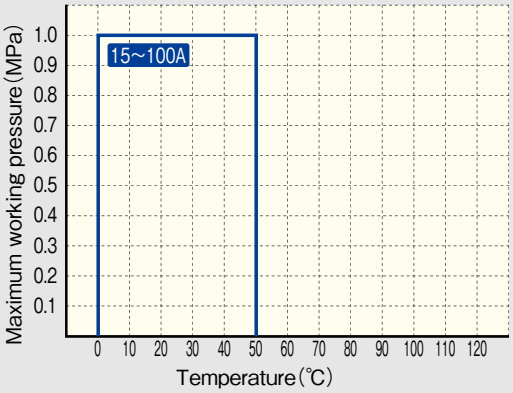
- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Easy maintenance by detaching union nut.

⚠ Important Notes

- In the condition of low flow rate or frequent flow rate fluctuation, the ball might vibrate in the body, and might cause sound or damage of valve.
- Turbulent flow might disable checking by irregular ball bouncing.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

Body material : PVC



Body material : HT・CPVC

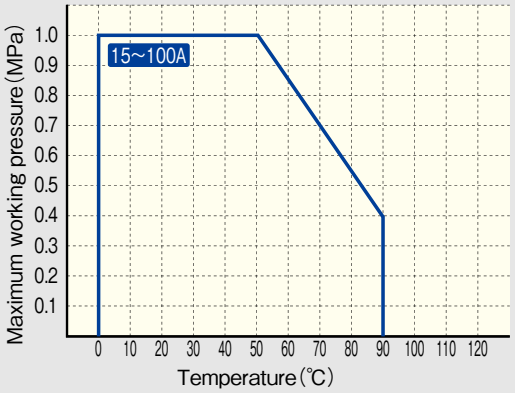
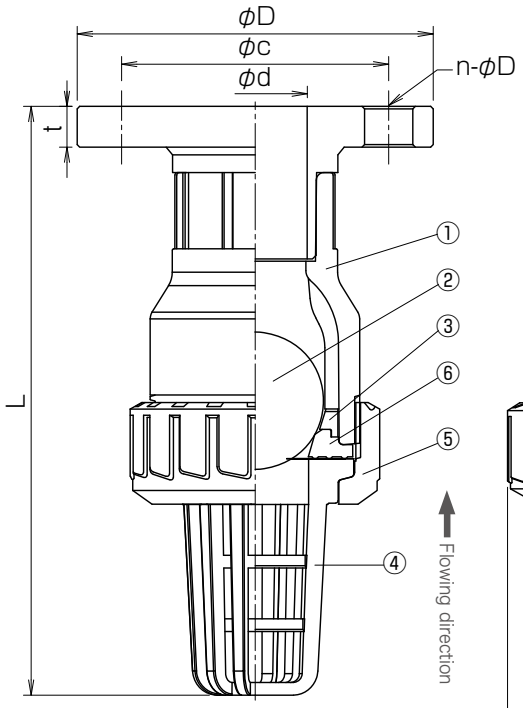
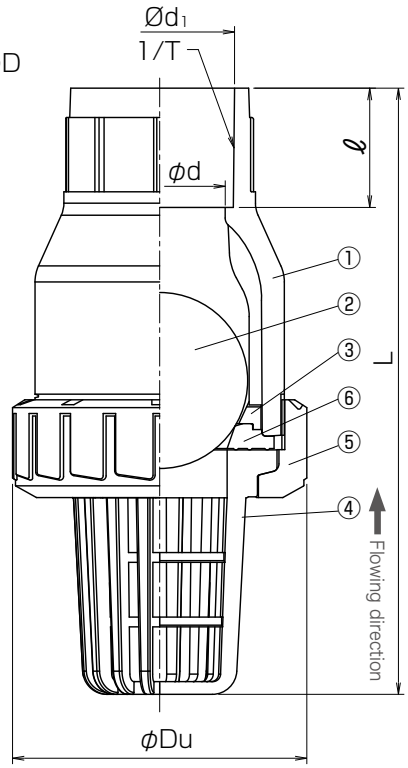


Figure (Flange Type・TS Socket Type・Thread Type)

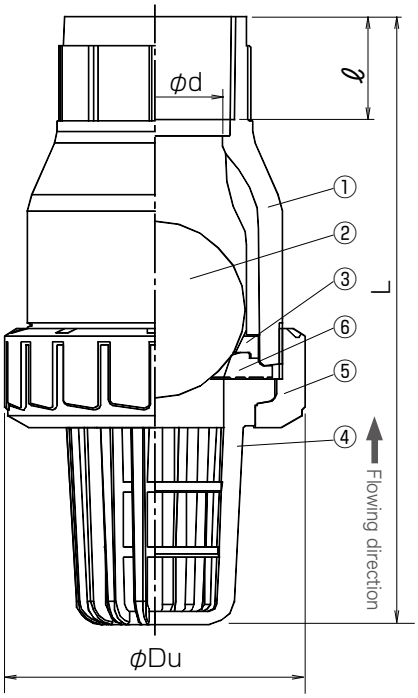
● Flange



● TS Socket



● Thread



Parts List

No.	Part Name	Q'TY	Material
1	Body	1	
2	Ball	1	● PVC
3	Ring	1	● HT
4	Screen	1	● CPVC
5	Union Nut	1	
6	Seat	1	● EPDM ● FKM

Size

Flange Type・TS Socket Type・Thread Type

Unit : ㎜

Size		ϕd	ϕDu	Flange										TS socket								
A	B			JIS10K					ANSI					JIS			ASTM			DIN		
				L	ϕD	ϕC	n-ϕh	t	L	ϕD	ϕC	n-ϕh	t	L	ϕd1	ℓ	L	ϕd1	ℓ	L	ϕd1	ℓ
15	1/2	16	49	139	95	70	4-15	14	145	89	60.3	4-16	11.5	119	22.3	22	116	21.54	22.2	104	20.3	16
20	3/4	20	59	161	100	75	4-15	14	170	99	69	4-16	13	140	26.3	25	132	26.87	25.4	121	25.3	19
25	1	25	67	175	125	90	4-19	14	183	108	79.5	4-16	14.5	151	32.3	29	146	33.65	28.6	133	32.3	22
32	1 1/4	32	98	231	135	100	4-19	16	-	-	-	-	-	205	38.4	32	205	42.42	31.8	201	40.3	26
40	1 1/2	40	98	232	140	105	4-19	16	246	128	98.4	4-16	19	205	48.5	35	203	48.56	35.0	194	50.3	31
50	2	50	120	260	155	120	4-19	20	279	152	120.6	4-19	19.5	235	60.6	38	227	60.63	38.1	228	63.3	38
65	2 1/2	65	150	379	175	140	4-19	22	344	177	139.5	4-19	22.5	309	76.6	61	272	73.38	44.5	272	75.3	44
80	3	78	150	407	185	150	8-19	22	401	193	152.4	4-19	27.1	335	89.6	64	296	89.31	47.6	297	90.3	51
100	4	102	228	570	210	175	8-19	24	524	230	190.5	8-19	29.3	480	114.7	84	424	114.76	57.2	428	110.4	61

Unit : ㎜

Thread						ϕDu	Weight(kg/unit)			
JIS:Rc		ANSI:NPT		DIN:Rp,Rc			PVC		HT(CPVC)	
ℓ	L	ℓ	L	ℓ	L		Flange	TS Socket Thread	Flange	TS Socket
13	117	16.5	117	15.0	117	49	0.4	0.1	0.4	0.1
15	137	17.0	137	16.5	137	59	0.5	0.2	0.5	0.2
17	148	21.0	148	19.0	148	67	0.7	0.3	0.8	0.3
19	208	22.0	208	22.0	208	98	1.2	0.8	1.3	0.8
19	203	22.0	203	22.0	203	98	1.2	0.7	1.3	0.7
23	237	23.0	237	26.0	237	120	1.9	1.2	2.0	1.2
27	294	31.0	286	31.0	286	150	3.7	2.5	3.9	2.6
37	320	37.0	319	37.0	320	150	3.8	2.2	4.1	2.3
36	452	35.0	447	40.0	447	228	11.0	8.3	11.7	8.6

■ Minimum operating pressure(Gasket:EPDM)

Unit : kPa

Size(A)		15	20	25	32	40	50	65	80	100
Vertical piping	Min.opened pressure	5			10					
	Min.closed pressure	30								50
Horizontal piping	Min.opened pressure	1			2					
	Min.closed pressure	30								50

※ The pressure in the above table has tolerance.

Flange | TS Socket | Thread | Butt

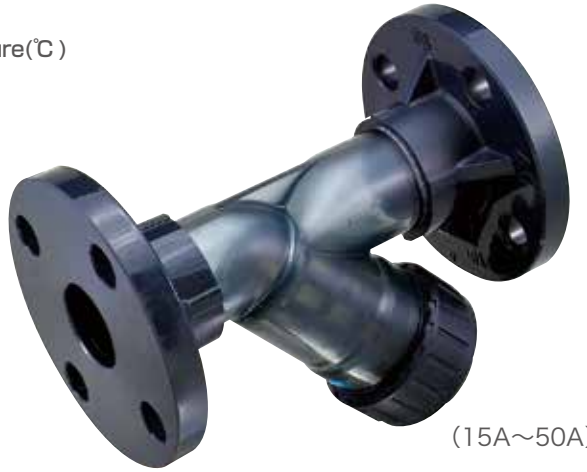
JIS | ANSI / ASME / ASTM | DIN

※ For size 65-100A, only JIS type is available.

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50



(15A～50A)

(65A～100A)

ESLON STRAINER

Feature

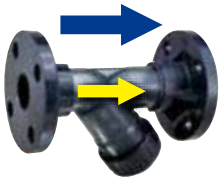
- Transparency body enables easy monitoring medium and screen (15-50A)
- Easy maintenance such as exchange or cleaning up screen by detaching cap nut.
- Superior chemical & pressure resistance and durability.

⚠ Important Notes

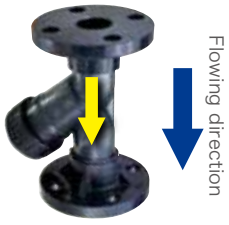
- Install strainer as bonnet down flowing direction and the arrow marking on body in the same direction.

【15～50A】

Flowing direction



Horizontal piping

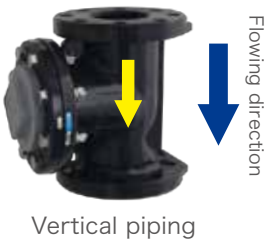


Vertical piping

【65～100A】

Flowing direction

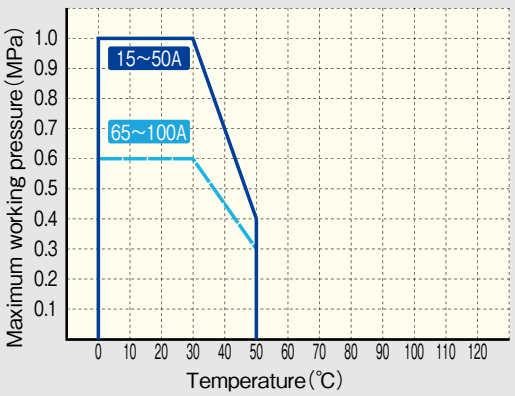
Horizontal piping



Vertical piping

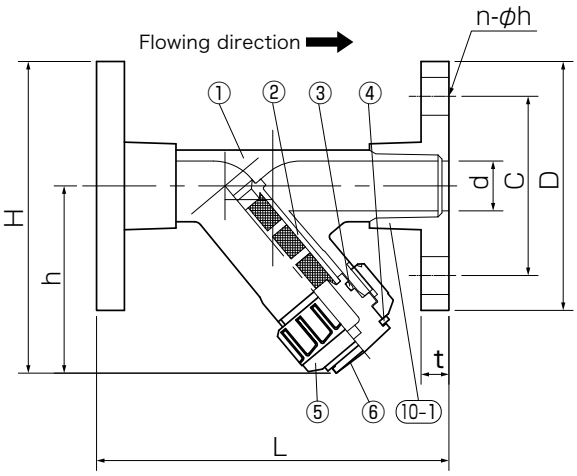
Maximum Working Pressure - Temperature Rating

Body material : PVC



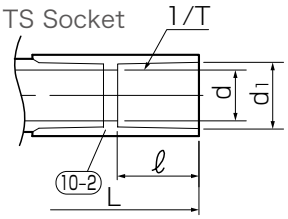
Figure(Flange Type·TS Socket Type·Thread Type· True Union with TS Socket)

● Flange(15A～50A)

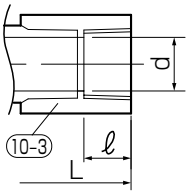


※Install strainer as bonnet bottom up.

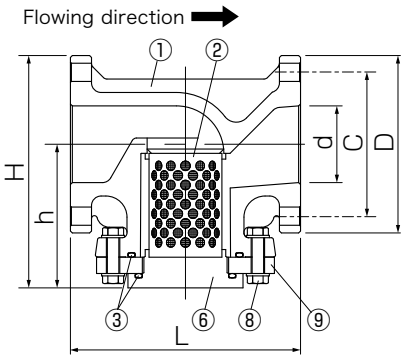
● TS Socket



● Thread

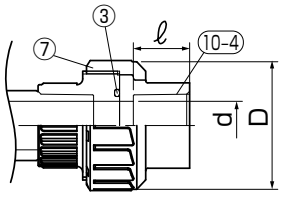


● Flange(65A～100A)



※For size 65-100A,
only flange type is available.

● True Union with TS Socket



Parts List

No.	Part Name		Q'TY	材　質
1	Body		1	PVC
2	Screen holder		1	PVC
3	O-ring	15～50A	1	● EPDM ● FKM
		Open ring	2	
4	Open Ring		1	PVC
5	Cap nut		1	PVC
6	Bonnet		1	PVC
7	Union nut		2	PVC
8	Hexagon bolt,nut		8	SUS304
9	Valve lid		1	PVC
10-1	Flange end		2	PVC
10-2	TS socket		2	PVC
10-3	Threaded socket		2	PVC
10-4	Union TS Socket		2	PVC

Screen Type and Mesh Size

Mesh Size		10	20	30	40	50	60	70	80	100	120
15A·20A	PVDC	–	–	○	○	○	○	–	–	–	–
	SUS304	○	○	○	○	○	○	○	○	○	–
	SUS316	–	–	–	–	–	–	–	–	–	○
25A～100A	PVDC	○	○	○	○	○	○	–	–	–	–
	SUS304	○	○	○	○	○	○	○	○	○	–
	SUS316	–	–	–	–	–	–	–	–	–	○
Clear Opening	PVDC	1.62	0.98	0.54	0.42	0.32	0.26	–	–	–	–
	SUS	2.07	0.93	0.57	0.42	0.33	0.28	0.24	0.20	0.15	0.13

※ Standard Mesh : PVDC30#

Size

Flange Type

Unit : mm

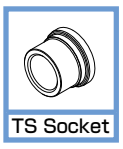
Size A	Size B	d	L	h	Flange JIS10K φD	JIS10K φC	JIS10K n-φh	JIS10K t	ANSI φD	ANSI φC	ANSI n-φh	ANSI t	DIN φD	DIN φC	DIN n-φh	DIN t	Weight (kg/unit) PVC
15	1/2	15	150	71	95	70	4-15	14	89.0	60.5	4-16	14	95	65	4-14	14	0.4
20	3/4	20	158	81	100	75	4-15	14	98.0	70.0	4-16	14	105	75	4-14	14	0.5
25	1	25	177	94	125	90	4-19	14	108.0	79.5	4-16	14	115	85	4-16	14	0.7
32	1 1/4	30	197	94	135	100	4-19	16	117.5	89.0	4-16	16	140	100	4-18	16	1.0
40	1 1/2	40	220	118	140	105	4-19	16	127.0	98.5	4-16	16	150	110	4-18	16	1.2
50	2	50	264	137	155	120	4-19	20	152.0	120.5	4-20	20	165	125	4-18	20	2.0
65	2 1/2	65	220	153	175	140	4-19	22	–	–	–	–	–	–	–	–	3.6
80	3	80	240	161	185	150	8-19	22	–	–	–	–	–	–	–	–	4.4
100	4	100	290	178	210	175	8-19	24	–	–	–	–	–	–	–	–	6.8

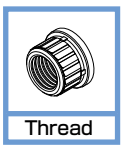
TS Socket Type · Thread Type

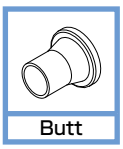
Unit : mm

Size A	Size B	d	h	TS socket JIS10K L	TS socket JIS10K φd1	TS socket JIS10K 1/T	TS socket JIS10K ℓ	Thread JIS10K L	Thread JIS10K ℓ	Union TS Socket JIS10K L	Union TS Socket JIS10K ℓ	Weight(kg/unit) TS socket	Weight(kg/unit) Thread	Weight(kg/unit) Union TS socket
15	1/2	15	71	190	22.4	1/34	30	153	16	201	22	0.2	0.2	0.3
20	3/4	20	81	210	26.5	1/34	35	176	19	214	25	0.2	0.2	0.4
25	1	25	94	243	32.6	1/34	40	200	22	254	29	0.4	0.4	0.6
32	1 1/4	32	94	274	38.6	1/34	44	232	26	287	32	0.6	0.6	0.8
40	1 1/2	40	118	332	48.7	1/37	55	271	31	301	35	0.9	0.9	1.3
50	2	50	137	390	60.8	1/37	63	321	38	370	38	1.4	1.4	2.1

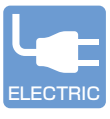
*ASTM,ANSI,DIN:Please contact us







JIS ANSI/ASME/ASTM DIN/ISO



Operating Temperature(℃)

	Flange Type	Union Type
PVC	0～60	0～50
HT·CPVC	0～90	0～90
PP	0～90	
PVDF	0～120	0～100


15～50A


65～100A

ESLON PNEUMATIC DIAPHRAGM VALVE TYPE F

Feature

- High pressure rating and excellent sealing performance with optimized diaphragm design.
  2 types of maximum working pressure, 1.0MPa / 0.7MPa for Normal Close Action.
- Standard optional accessories available on the top mount on request.
- Excellent chemical and corrosion resistance, light weight, and compact.
- Flat at the bottom of flange and insert nuts for prevention of tumbling and for better workability in plumbing.
  ※Union type

⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Max. Working Press. at R.T.

Size	Air Pressure		
	Double Action Air To Close	Air To Open 7k	Air To Open 10k
15-50A	1.0	0.7	1.0
65-100A	0.7		—

Air Supply Port

Double Action	Rc 1/4
Air To Open&Close	Rc 1/4

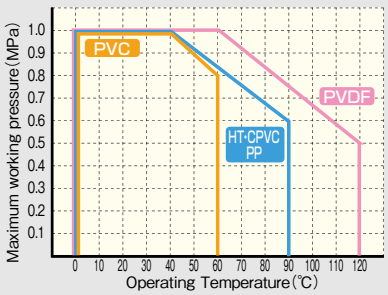
Actuator Specifications

Size	Double Action		Air to Open 7K		Air to Open 10K		Air to Close	
	Standard Operating Pressure	Air consumption (ℓ/time)	Standard Operating Pressure	Air consumption (ℓ/time)	Standard Operating Pressure	Air consumption (ℓ/time)	Standard Operating Pressure	Air consumption (ℓ/time)
15-32A	0.4	2.0	0.4	1.0	0.6	1.4	0.5	1.2
40,50A	0.4	9.0	0.5	4.8	0.6	5.6	0.5	6.0
65A	0.3	24.2	0.5	10.7	—	—	0.5	13.1
80A	0.3	25.0	0.5	11.9	—	—	0.5	13.1
100A	0.4	38.6	0.5	17.3	—	—	0.5	23.2

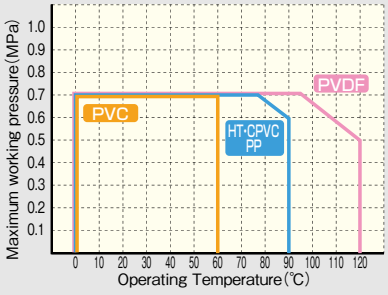
Maximum Working Pressure - Temperature Rating

■ Flange Type
EPDM·FKM·PTFE

●Double Action, Air To Close, Air To Open10K

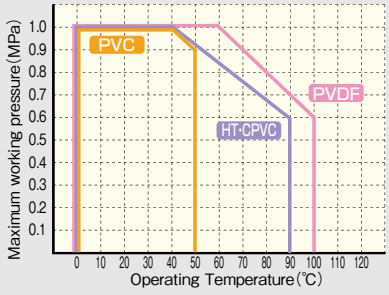


●Air To Open7K



■ Union Type
EPDM·FKM·PTFE

●Double Action, Air To Close, Air To Open10K



●Air To Open7K

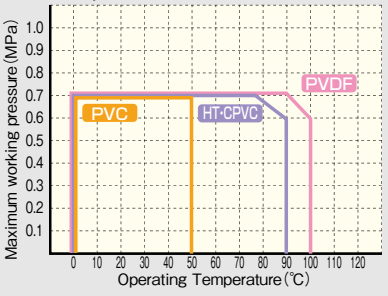
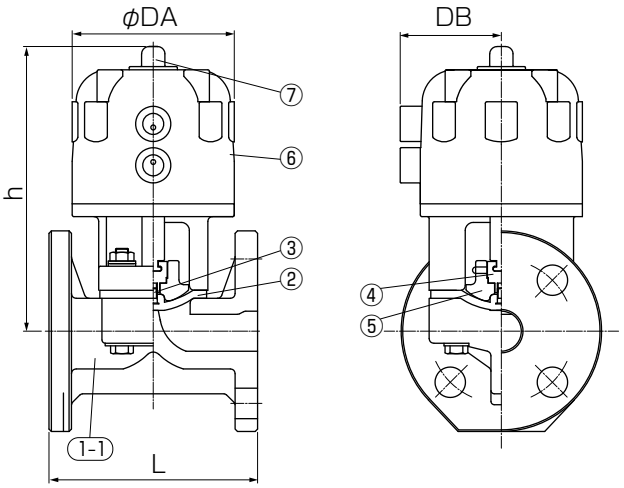


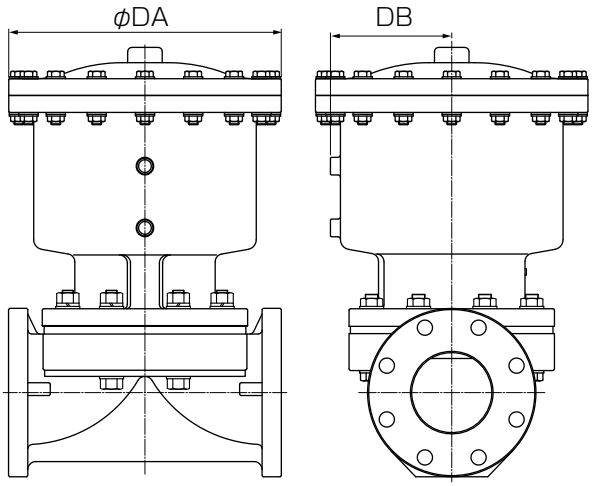
Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

● Flange Type

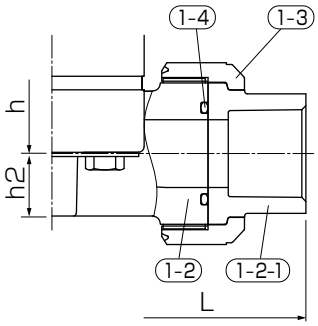
15A～50A



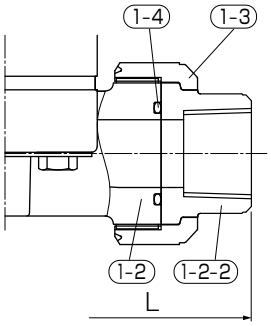
65～100A



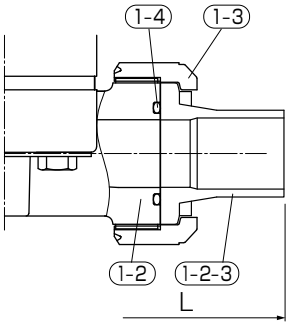
● TS Socket Type



● Thread Type



● Butt Type



Parts List

No.	Part Name	Q'TY	Material ／ Type
1-1	Body(Flange type)	1	● PVC ● HT (JIS : Brown) ● CPVC (ANSI·DIN : Gray) ● PP ● PVDF
1-2	Body(Union type)	1	● PVC ● HT (JIS : Brown) ● CPVC (ANSI·DIN : Gray) ● PVDF
1-2-1	TS Socket	2	●PVC ●HT ●CPVC
1-2-2	Threaded socket	2	●PVC ●PVDF
1-2-3	Butt Spigot Type	2	●PP ●PVDF ●PE
1-2-4	Socket welding	2	PP
1-3	Union nut	2	● PVC ● HT ● CPVC ● PVDF
1-4	O-ring	2	● EPDM ● FKM
2	Diaphragm	1	●EPDM ●FKM ●PTFE+EPDM
3	Diaphragm Stud Bolt	1	SUS304
4	Connecting Nut	1	C3604
5	Compressor	1	GF-PP
6	Actuator	1	GF-PP
7	Cap Cover	1	PC

Option

● Opening control unit

● Closing control unit (15～50A)

● Limit switch

● Solenoid valve

● Electro pneumatic positioner

● Speed controller

● Regulator with filter

※ Other options: Please contact us.

Size

Flange type・Thread type・TS socket type・Butt type

Unit : ㎜

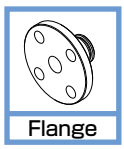
Size A	Size B	h	φ DA	DB	Flange JIS10K,ANSI,DIN L	Weight (kg/unit) (Air to open)
15	1／2	176	101	63	110	1.6
20	3／4	176	101	63	120	1.7
25	1	183	101	63	130	1.8
32	1 1／4	183	101	63	142	2.1
40	1 1／2	303	155	90	180	8.0
50	2	307	155	90	210	8.9
65	2 1／2	386	235	124	250	15.9
80	3	392	285	124	280	17.5
100	4	430	340	151	340	27.3

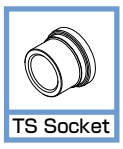
Unit : ㎜

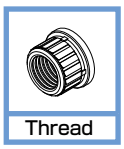
Size A	Size B	h	h2	TS Socket JIS L	TS Socket ASTM L	TS Socket DIN L	Thread JIS/DIN:Rc PVC L	Thread JIS/DIN:Rc PVDF L	Thread ANSI:NPT PVC,PVDF L	Thread DIN:Rp PVC,PVDF L	Weight (kg/unit) (Air to open) TS socket	Weight (kg/unit) (Air to open) Thread
15	1／2	176	15.0	144	137	126	133	134	133	133	1.4	1.4
20	3／4	176	18.0	172	158	146	157	157	157	157	1.5	1.5
25	1	183	23.0	187	177	165	173	180	173	173	1.6	1.6
32	1 1／4	183	23.0	210	190	179	188	181	188	188	1.9	1.9
40	1 1／2	307	32.5	262	258	247	248	254	248	248	8.0	8.0
50	2	308	37.5	298	283	284	280	290	280	280	8.9	8.9

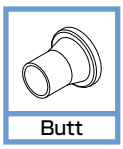
Unit : ㎜

Size A	Size B	Butt Spigot DIN PP,PVDF L	Butt Spigot DIN PE L	Butt Spigot JIS PE L	Socket welding DIN PP L	Socket welding DIN PP ℓ
15	1／2	176	246	–	137	12.0
20	3／4	189	259	–	153	13.0
25	1	203	283	293	171	14.5
32	1 1／4	210	301	–	183	18.0
40	1 1／2	272	376	376	245	16.0
50	2	306	419	409	278	20.0


Flange


TS Socket


Thread


Butt

JIS | ANSI/ASME/ASTM | DIN/ISO


MANUAL


PNEUMATIC


ELECTRIC

RINSED


OIL-FREE

Operating Temperature(℃)

PVC	0～50	PP	−20～80
HT·CPVC	0～90	PVDF	−20～100


Single Action
(Air to open,Air to close)


Double Action

ESLON PNEUMATIC BALL VALVE TYPE S

Feature

- Light weight and compact aluminum actuator.
- Excellent chemical & corrosion resistance.
- High durability.
- Operating air pressure : 0.4MPa.
- Manual override wheel handle for open/close is available.
- Box type of Limit switch is available as an option.
- Conformity with NAMUR standard.

Actuator Specifications

Size	Double Action		Single Action	
	Model	Air consumption (ℓ/time)	Model	Air consumption (ℓ/time)
15-25A	RD40	1.0	RS50	1.0
32,40A	AD50	2.0	AS50	1.0
50A	AD50	2.0	AS65	1.5
65,80A	AD65	3.0	AS80	3.0
100A	AD80	5.5	AS100	6.0

Standard Operating Air Pressure

Double Action	0.4MPa
Air To Open·Air To Close	0.4MPa

Air Supply Port

Operation type	Size	Air intake port
Double Action	15-25A	Rc 1/8
	32-100A	Rc 1/4
Air To Open·Air To Close	15-100A	Rc 1/4

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

■Double Action,Air To Close,Air To Open

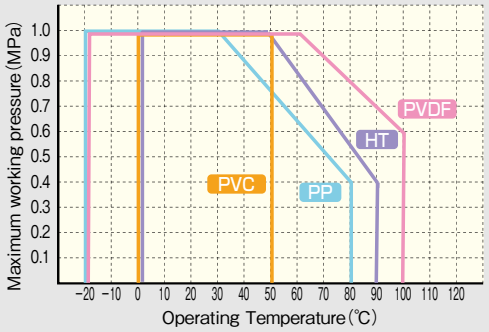
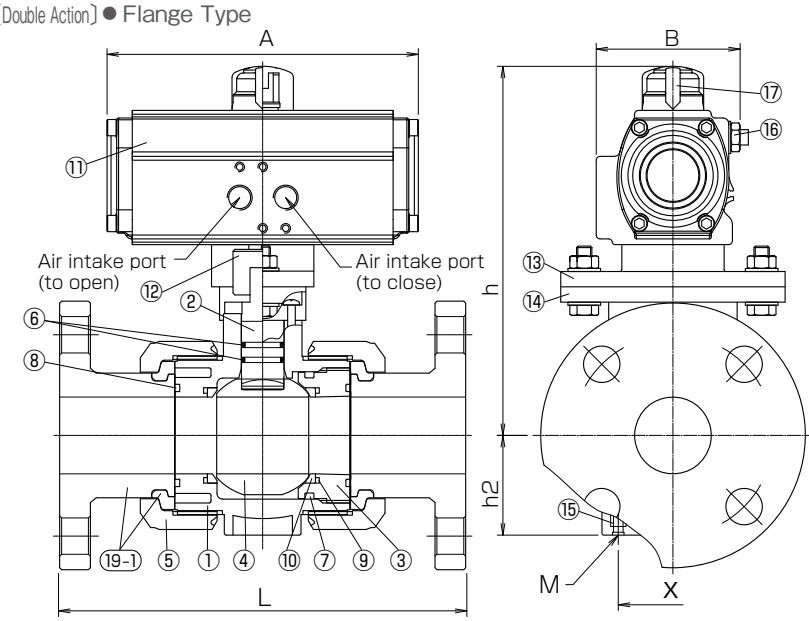
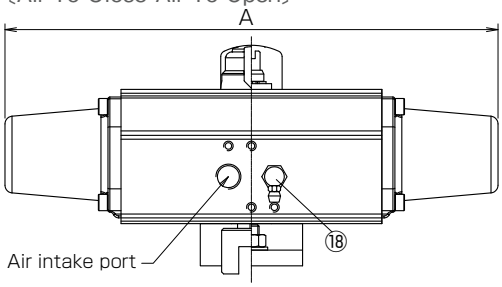


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

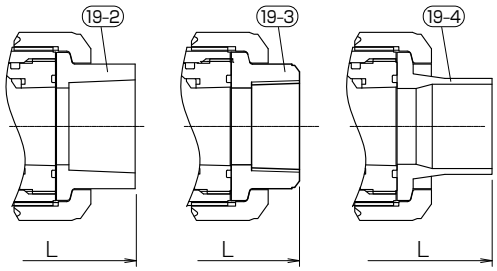
〔Double Action〕● Flange Type



〔Air To Close・Air To Open〕



● TS Socket Type ● Thread Type ● Butt Type



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	● PVC ● HT (JIS : Brown) ● CPVC (ANSI・DIN : Gray) ● PP ● PVDF
2	Stem	1	
3	Ball holder	1	
4	Ball	1	
5	Union nut	2	
6	Stem O-ring※	2	● EPDM ● FKM
7	Ball holder O-ring	1	
8	Union O-ring	2	
9	Ball seat O-ring	2	
10	Ball Seat	2	PTFE
11	Cylinder	1	AL6063
12	Connector	1	AL6061
13	Yoke	1	GF-PP
14	Yoke	1	GF-PP
15	Insert Nut	2	C3601
16	Adjust Bolt	2	SUS304
17	Indicator	1	PA+PE
18	Air Exhaust Port	1	C3601+Cr Coated
19	Flange,Set ring	2	● PVC ● HT ● CPVC ● PP ● PVDF
20	TS Socket	2	● PVC ● HT ● CPVC
21	Threaded socket	2	● PVC ● PVDF
22	Butt Spigot Type	2	● PP ● PVDF ● PE
23	Socket welding	2	PP

Option

● Solenoid valve

● Solenoid valve (Explosion proof)

● Limit switch (Drip proof type, Explosion proof type)

● Regulator with filter

● Electro pneumatic positioner

● Speed controller

● Manual Override Handle

● Sodium resistance coating, Acid resistance coating

● Support plate (15～65A)

※ Other options: Please contact us.

Size

Flange type · Thread type · TS socket type · Butt type

Unit : ㎜

Size		φ d	h		A		B		Fixing Insert x000D_ Nut		Flange	
A	B		Double Action	Air to open Air to close	Double Action	Air to open Air to close	Double Action	Air to open Air to close			JIS10K,ANSI,DIN	
									X	M	L	
15	1/2	15	132	147	97	133	60	75	27.0	M5	143	
20	3/4	20	137	152	97	133	60	75	32.0	M5	172	
25	1	25	146	162	97	133	60	75	37.0	M5	187	
32	11/4	32	170	170	162	257	75	75	42.0	M5	190	
40	11/2	40	193	193	162	257	75	75	57.0	M6	212	
50	2	50	199	216	162	314	75	89	67.0	M6	234	
65	21/2	65	245	264	202	430	89	101	81.0	M6	259	257
80	3	80	258	275	202	430	89	101	99.7	M8	304	301
100	4	100	319	341	262	500	101	129	119.7	M8	372	367

Size		TS Socket			Thread					
		JIS	ASTM	DIN	JIS,DIN (Rc)		ANSI (NPT)		DIN (Rp)	
A	B	PVC,HT,CPVC	PVC,HT,CPVC	PVC,HT,CPVC	PVC	PVDF	PVC	PVDF	PVC	PVDF
		L	L	L	L		L		L	
15	1/2	109	103	92	97	99	97	99	97	99
20	3/4	132	119	107	117	116	117	116	117	116
25	1	143	133	121	128	136	128	136	128	136
32	11/4	166	147	137	146	148	146	148	146	148
40	11/2	175	171	161	163	169	163	169	163	169
50	2	203	188	189	188	196	188	196	188	196
65	21/2	259	211	211	227	227	212	212	212	212
80	3	311	262	263	278	278	261	261	261	261
100	4	390	315	315	330	330	315	315	315	315

Size		Butt Spigot			Socket welding	Ref.Weight Body:PVC (kg/unit)			
		DIN	DIN	JIS	DIN	Double Action		Air to open Air to close	
A	B	PP,PVDF	PE	PE	PP				
		L	L	L	L	Flange	Socket	Flange	Socket
15	1/2	143	210	-	103	0.7	0.5	1.6	1.3
20	3/4	152	220	-	114	0.9	0.6	1.7	1.4
25	1	161	237	247	126	1.6	1.1	2	1.6
32	11/4	167	258	-	141	2.6	2.1	2.9	2.3
40	11/2	190	292	291	162	3.2	2.6	3.5	2.8
50	2	216	325	314	185	0.9	0.6	5.6	4.7
65	21/2	208	363	-	204	1.6	1.1	9.5	8.5
80	3	301	424	424	264	2.6	2.1	11.9	11.0
100	4	340	478	498	317	18.4	17.5	21.1	20.2

Wafer | TS Socket | Thread | Butt

JIS | ANSI / ASME | DIN

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50
PP	0～80
PVDF	0～120

Single Action
(Air to open,Air to close)

Double Action

ESLON PNEUMATIC BUTTERFLY VALVE TYPE S

Feature

- Light weight and compact of aluminum actuator.
- Excellent corrosion resistance.
- Changeable into automatic/manual operation.
- Operating air pressure : 0.4MPa
- Manual override wheel handle for open/close is available.
- Box type of Limit switch is available as an option.
- Conformity with NAMUR standard.

Actuator Specifications

Size	Double Action		Single Action	
	Model	Air consumption (ℓ/time)	Model	Air consumption (ℓ/time)
40A	AD50	2.0	AS50	1.0
50,65A	AD50	2.0	AS65	1.5
80A	AD65	3.0	AS80	3.0
100A	AD80	5.5	AS100	6.0
125A	AD100	11.5	AS125	12.5
150A	AD125	23.5	AS140	19.5
200,250A	AD125	23.5	AS160	24.0
300A	AD140	37.0	AS160	24.0
350,400A	AD160	45.5	AS210	31.0

Standard Operating Air Pressure

Air Pressure	Double Action	0.4MPa
	Air To Open&Close	0.4MPa

Air Supply Port

Double Action	Rc 1/4
Air To Open&Close	Rc 1/4

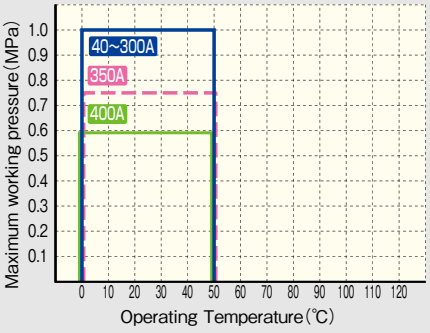
⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

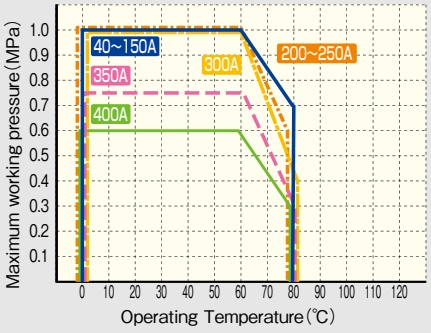
Body material : PVC

■Double Action,Air To Close,Air To Open



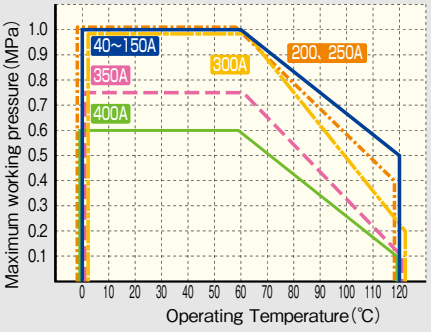
Body material : PP

■Double Action,Air To Close,Air To Open



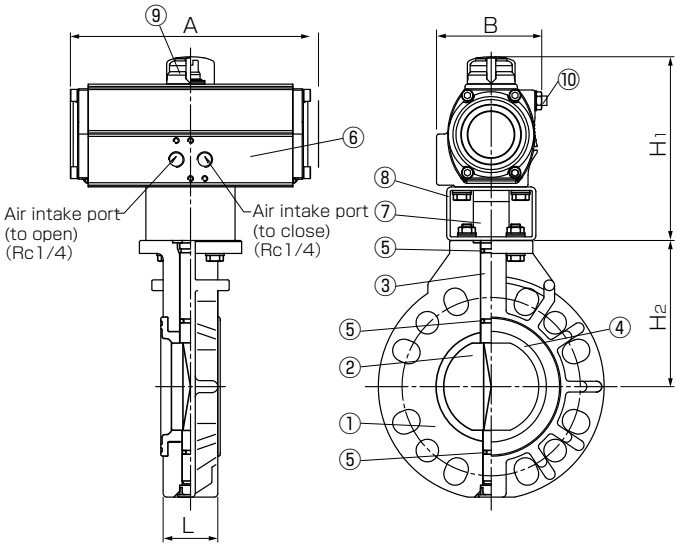
Body material : PVDF

■Double Action,Air To Close,Air To Open

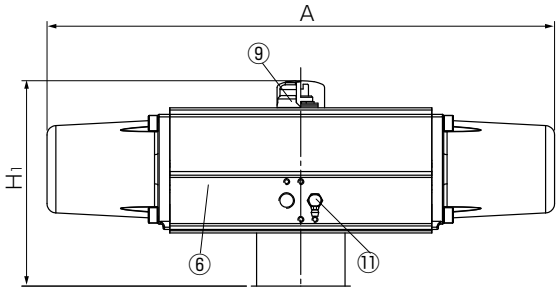


Figure

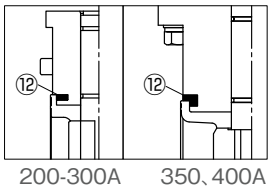
〔Double Action〕



〔Air To Open･Air To Close〕



200-400A(Body:PP)



Option

● Solenoid valve

● Solenoid valve (Explosion proof)

● Limit switch (Box type)

● Regulator with filter

● Electro pneumatic positioner

● Speed controller

● Manual Override Handle

● Sodium resistance coating, Acid resistance coating

※ Other options: Please contact us.

Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	Body/Disc ●PVC/PP ●PP/PP ●PVDF/PVDF
2	Disc	1	
3	Shaft	1	●SUS420J2 ●SUS316
4	Seat Ring	1	●EPDM ●FKM
5	O-Ring	3	
6	Cylinder	1	AL6063
7	Yoke	1	STKR+Resin Coating
8	Connector	1	SUS303
9	Indicator	1	PA+PE
10	Adjust Bolt	2	SUS304
11	Air Exhaust Port	1	C3601+Resin Coating
12	Reinforced Ring (200-400A Body:PP)	2	S45C+Plating

Size

Unit : ㎜

Size		L	φ d	Flange						H1		H2	Double Action		Air to open Air to close		Weight(kg/unit)	
A	B			JIS10K		ANSI		DIN		Double Action	Air to open Air to close		A	B	A	B	Double Action	Air to open Air to close
				φ C	n-φ h	φ C	n-φ h	φ C	n-φ h									
40	1 1／2	33	45	105	4-19	98.5	4-16	110	4-18	138	138	105	162	75	257	75	2.5	2.6
50	2	43	57	120	4-19	120.5	4-19	125	4-18	138	155	112	162	75	314	89	2.7	3.7
65	2 1／2	46	71	140	4-19	139.5	4-19	145	4-18	138	155	123	162	75	314	89	3.1	4.5
80	3	46	80	150	8-19	152.5	4-19	160	8-18	155	174	130	202	89	430	101	4.4	7.0
100	4	52	100	175	8-19	190.5	8-19	180	8-18	175	197	152	262	101	500	129	6.6	12.4
125	5	56	125	210	8-23	216	8-22	210	8-18	228	253	169	311	129	606	151	9.9	18.9
150	6	60	150	240	8-23	241.5	8-22	240	8-22	252	271	178	390	151	682	164	16.6	28.6
200	8	71	198	290	12-23	298.5	8-22	295	8-22	252	198	230	390	151	781	188	18.2	41.3
250	10	78	246	355	12-25	362	12-25	350	12-22	277	323	250	390	151	781	188	27.0	47.9
300	12	114	299	400	16-25	432	12-25	400	12-22	295	323	280	431	164	781	188	41.1	54.9
350	14	129	348	445	16-25	476.2	12-29	460	16-22	323	387	325	506	188	982	231	55.0	97.4
400	16	169	406	510	16-27	540.0	16-29	515	16-26	323	387	350	506	188	982	231	62.3	105.0

Flange | TS Socket | Thread | Butt

JIS ANSI DIN

MANUAL | PNEUMATIC | ELECTRIC | RINSED | OIL-FREE

Operating Temperature(℃)

PVC	0～50

ESLON AIR OPERATION VALVE

Feature

- Light weight and compact of plastic actuator.
- Excellent chemical and corrosion resistance.
- Excellent open-close durability.
- Water hammer prevention with optimized diaphragm design.
- By-pass on the valve body to avoid dead water while valve is shut is available as an option.

Standard Operating Air Pressure

Air Pressure	Double Action	0.4MPa
	Air To Open&Close	0.5MPa

Air Supply Port

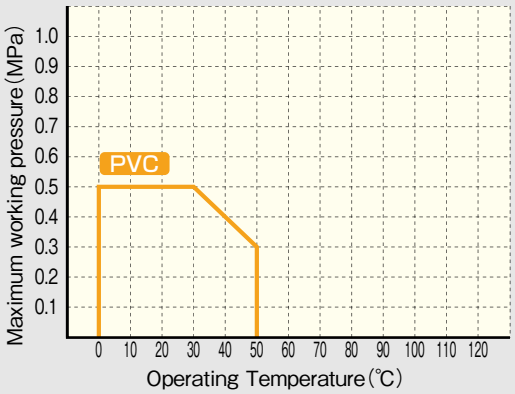
Double Action	Rc 1/8
Air To Open&Close	Rc 1/8

⚠ Important Notes

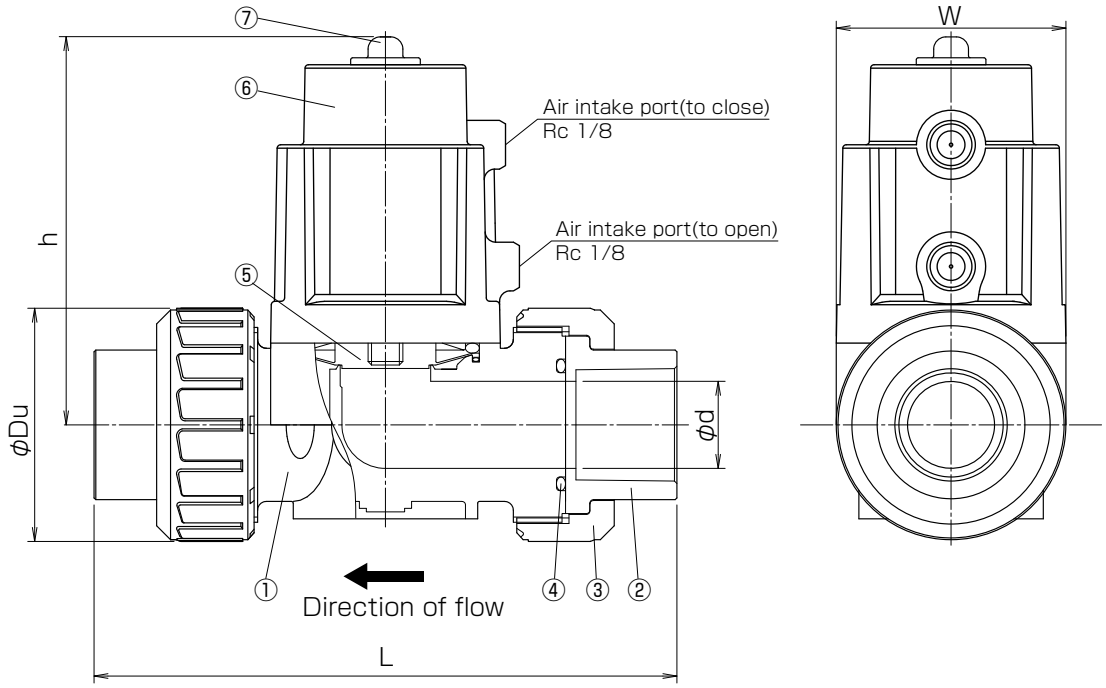
- Union nut is compatible only with Eslon True Union Fitting compact type. (Incompatible with Eslon Ball Valve, Diaphgram Valve, and True Union Fitting which is compatible with Ball Valve)

Maximum Working Pressure - Temperature Rating

■Double Action,Air To Close,Air To Open



Figure



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	PVC
2	TS Socket	2	PVC
3	Union nut	2	PVC
4	O-ring	2	●EPDM ●FKM
5	Diaphragm	1	PTFE
6	Actuator	1	PPS-GF
7	Indicator	1	PC

Option

● Opening controller

● By-pass

● Pedestal

● Speed controller

● Solenoid valve

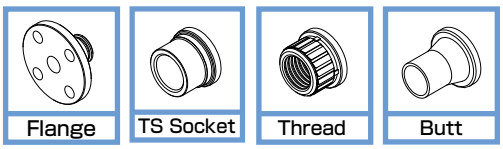
● Regulator with filter

※ Other options: Please contact us.

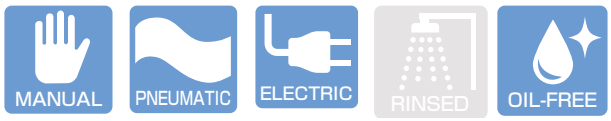
Size

Unit : ㎜

Size		d	L	h	W	Du	Air consumption(ℓ/time/unit)			Ref. Weight (kg/unit)		
A	B						Double Action	Air to close	Air to open	Double Action	Air to close	Air to open
15	1/2	15	145	113	66	54	0.06	0.04	0.02	0.6	0.6	0.7
20	3/4	20	149	113	66	54	0.06	0.04	0.02	0.6	0.6	0.7
25	1	25	168	113	66	67	0.06	0.04	0.02	0.7	0.8	0.8
32	1 1/4	31	242	149	97	87	0.23	0.13	0.05	1.9	2.1	2.3
40	1 1/2	40	238	149	97	87	0.23	0.13	0.05	1.9	2.1	2.3
50	2	51	275	200	117	107	0.45	0.26	0.09	3.3	3.6	4.1
65	2 1/2	65	321	246	149	128	1.03	0.65	0.21	6.0	6.6	8.4



JIS | ANSI/ASME/ASTM | DIN/ISO



Operating Temperature(℃)

	Flange Type	Union Type
PVC	0～60	0～50
HT·CPVC	0～90	0～90
PP	0～90	
PVDF	0～120	0～100

ESLON ELECTRIC DIAPHRAGM VALVE TYPE KS

Feature

- Excellent chemical and corrosion resistance with resin coated aluminum actuator.
- Compact and high durability motor onboard.
- Easy flow control and water hammer prevention by slow action.
- Visual position indicator on actuator.
- Manual open-close operation is available by attached box wrench.

⚠ Important Notes

- Fluid containing slurry, solid, sediment, or crystallized fluidmight disable sealing.

Time For Open-Close (50/60Hz)

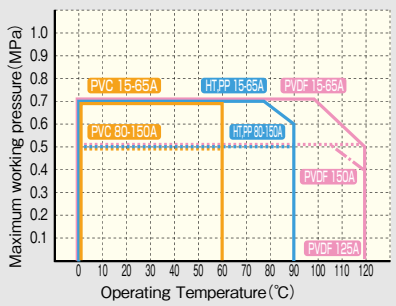
Size (A)	Time(Sec.)	Size (A)	Time(Sec.)
15	12/10	65	36/30
20	14/12	80	38/32
25,32	15/13	100	50/45
40	11/9	125	72/61
50	20/17	150	90/72

Specification of Actuator

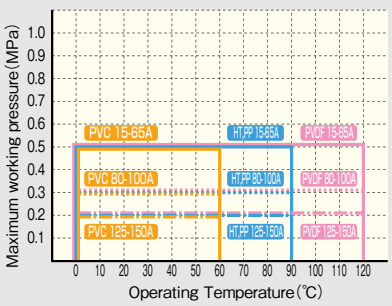
Nominal diameter(A)		15~32A	40~65A	80A	100A	125·150A
Input system		Power switching system				
Contact output		Power supply voltage				
Operating voltage		Single-phase AC100,200V(50/60Hz)				
Motor	Type	Reversible motor				
	Time rating	30 minutes rating				
Protect		15~32A :impedance protect inside 40~150A :Thermal protect inside				
Rated current	100V	0.3A	0.8A	1.0A	1.4A	2.0A
	200V	0.15A	0.4A	0.5A	0.7A	1.0A
Manual operation		Drive shaft direct operation				
Connector type		G1/2Conduit connector (max.φ10.5 Cabtire cable)				
Material		AC-4 Resin Coating				
Protection		IP63				

Maximum Working Pressure - Temperature Rating

■Diaphragm:EPDM／Flange



■Diaphragm:PTFE／Flange



■Diaphragm:EPDM·PTFE／TS·Thread·Butt Spigot

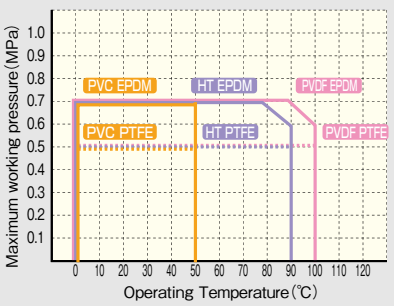
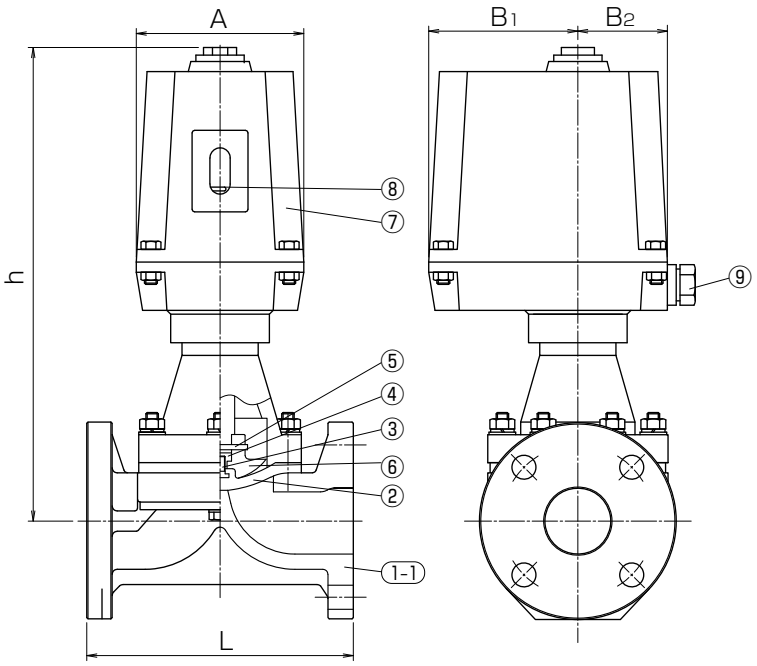
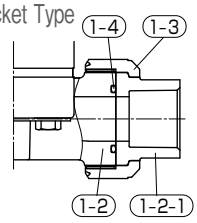


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

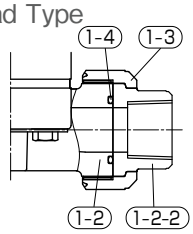
● Flange Type



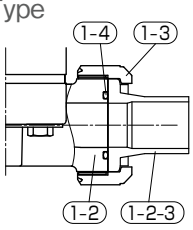
● TS Socket Type



● Thread Type



● Butt Type



Parts List

No.	Part Name	Q'TY	Material ／ Type
1-1	Flange Body	1	●PVC ●HT(JIS:Brown)●CPVC(ANSI·DIN:Gray)●PP ●PVDF
1-2	Union Body	1	●PVC ●HT(JIS:Brown)●CPVC(ANSI·DIN:Gray)●PVDF
1-2-1	TS Socket	2	●PVC ●HT(JIS:Brown)●CPVC(ANSI·DIN:Gray)
1-2-2	Thread Socket	2	●PVC ●PVDF
1-2-3	Butt Spigot	2	●PVDF
1-3	Union Nut	2	●PVC ●HT(JIS:Brown)●CPVC(ANSI·DIN:Gray)●PVDF
1-4	O-Ring	2	●EPDM ●FKM
2	Diaphragm	1	●EPDM ●PTFE+EPDM ●PTFE+PVDF+EPDM
3	Diaphragm Screw	1	SUS304※
4	Compressor Nut	1	C3604※
5	Pin	1	SUS304※
6	Compressor	1	GF-PP
7	Actuator	1	AC-4+Resin Coating
8	Indicator	1	C3604
9	Electric Conduit Gland	1	PP

※ Titanium Palladium is available on request.

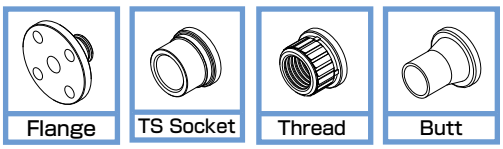
Option

- No-voltage limit switch
- Space heater
- Sodium resistance coating, Acid resistance coating

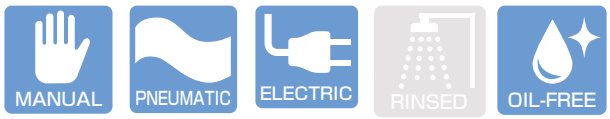
Size

Unit : mm

Size		L													h	Actuator			Ref. Weight (kg/unit)	Actuator
		Flange			TS Socket			Thread				Butt Spigot			Socket welding						
A	B	JIS10K	ANSI	DIN	JIS10K	ANSI	DIN	JIS(Rc)		ANSI(NPT)	DIN(Rp)	DIN	DIN	JIS	DIN		A	B1	B2		
		PVC,HT,CPVC,PP,PVDF			PVC,HT,CPVC			PVC	PVDF	PVC,PVDF	PVC,PVDF	PP,PVDF	PE	PE	PP						
15	1/2	110			144	137	126	133	134	133	133	176	246	–	137	266	112	93	57	5.0	ED-6
20	3/4	120			172	158	146	157	157	157	157	189	259	–	153	277	112	93	57	5.5	ED-6
25	1	130			187	177	165	173	180	173	173	203	283	293	171	285	112	93	57	6.0	ED-6
32	1 1/4	142			210	190	179	188	191	188	188	210	301	–	183	285	112	93	57	6.3	ED-6
40	1 1/2	180			262	258	247	248	254	248	248	272	376	376	245	349	132	118	70	9.5	ED-25
50	2	210			298	283	284	280	290	269	269	306	419	409	278	387	132	118	70	10.5	ED-25
65	2 1/2	250			–	–	–	–	–	–	–	–	–	–	–	435	132	118	70	12.5	ED-25
80	3	280			–	–	–	–	–	–	–	–	–	–	–	511	200	154	83	22.0	ED-40
100	4	340			–	–	–	–	–	–	–	–	–	–	–	562	200	154	83	27.5	ED-60
125	5	410			–	–	–	–	–	–	–	–	–	–	–	595	200	154	84	35.0	ED-90
150	6	480			–	–	–	–	–	–	–	–	–	–	–	601	200	154	84	43.0	ED-90



JIS | ANSI / ASME / ASTM | DIN / ISO



Operating Temperature(℃)

PVC	0～50	PP	−20～80
HT·CPVC	0～90	PVDF	−20～100

ESLON ELECTRIC BALL VALVE TYPE K

Feature

- Light weight and compact of actuator with aluminum die-cast housing.
- Excellent chemical and corrosion resistance.
- Visual position indicator on actuator.
- Easy flow control and water hammer prevention by slow action.
- Suitable for frequent operation with constant rating type of motor onboard.
- Conformity with CE.

Time For Open-Close (50/60Hz)

Size (A)	Time(Sec.)
15-25A	4/3.3
32-65A	15/12.5
80,100A	30/25

Specification of Actuator

Nominal diameter(A)		15～65A	80·100A
Input system		Power switching system	
Contact output		Power supply voltage	
Operating voltage		Single-phase AC100,200V(50/60Hz)	
Motor	Type	Reversible motor	
	Time rating	Continuous rating	
Protect		Thermal protect inside Adjustable mechanical stopper for open and close-side	
Rated current	100/110V	0.7/0.9A	0.65/0.70A
	200/220V	0.4/0.5A	0.35/0.40A
Manual operation		Drive shaft direct operation	
Connector type		G1/2 Condui(t t Cable OD ϕ9-11)	
Material		ADC12 Resin Coating	
Protection		IP66	

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

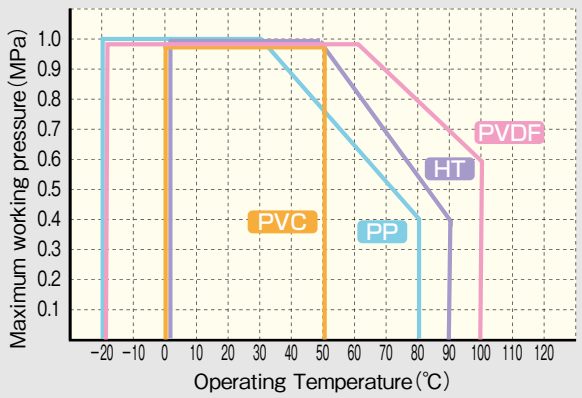
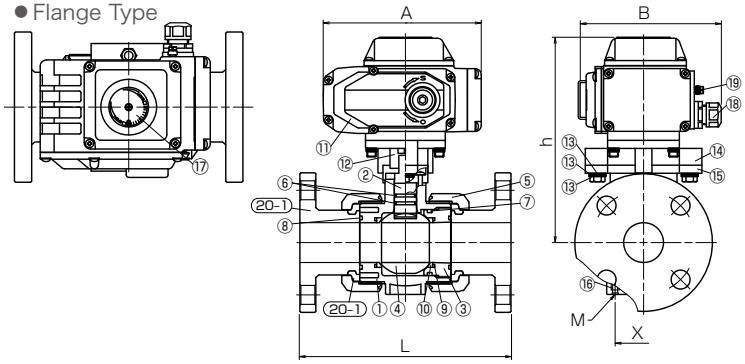
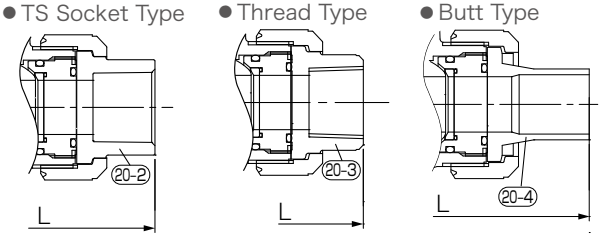


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

● Flange Type



● TS Socket Type ● Thread Type ● Butt Type



Parts List

No.	Part Name	Q'TY	Material / Type
1	Body	1	● PVC ● HT(JIS:Brown) ● CPVC(ANSI・DIN:Gray) ● PP ● PVDF
2	Stem	1	
3	Ball holder	1	
4	Ball	1	
5	Union nut	2	
6	Stem O-ring*1	2	● EPDM ● FKM
7	Ball holder O-ring	1	
8	Union O-ring	2	
9	Ball seat O-ring	2	
10	Ball Seat	2	PTFE
11	Actuator	1	ADC12(Resin Coating)
12	Connector	1	pvcZDC3

No.	Part Name	Q'TY	Material / Type
13	Bolt,Washer	–	SUS304
14	Upper mount	1	AC4A
15	Lower mount	1	GF-PP
16	Fixing Insert Nut	2	C3601
17	Valve Position Indicator	1	Tempered glass
18	Electric wire connector	1	PA、G1/2
19	Earth Terminal *2	1	SS400/Nickel Coated
20-1	Flange,Set ring	2	●PVC ●HT ●CPVC ●PP ●PVDF
20-2	TS Socket	2	●PVC ●HT ●CPVC
20-3	Threaded socket	2	●PVC ●PVDF
20-4	Butt Spigot Type	2	●PP ●PVDF ●PE
20-5	Socket welding	2	PP

*1 Stem O-Ring material will be FKM+PTFE in case of Oil Free *2 AC200 / 220V

Option

- No-voltage limit switch
- Potentiometer
- Space heater
- Proportional control (please contact us)
- Support Plate(15~65A)

Size

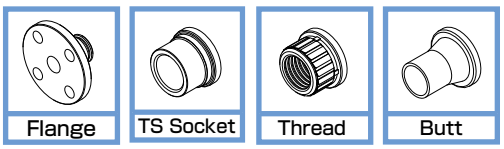
Flange type・Thread type・TS socket type・Butt type

Unit : mm

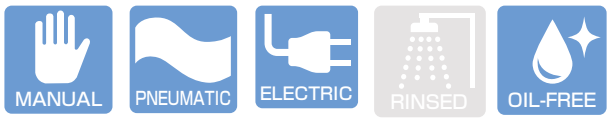
Size A	Size B	h	A	B	Fixing Insert X	Fixing Insert M	Flange L (JIS/ANSI/DIN) PVC,HT,CPVC	Flange L (JIS/ANSI/DIN) PP,PVDF
15	1/2	163	159	142	27.0	M5	143	
20	3/4	168	159	142	32	M5	172	
25	1	179	159	142	37	M5	187	
32	1 1/4	186	159	142	42	M5	190	
40	1 1/2	206	159	142	57	M6	212	
50	2	212	159	142	67	M6	234	
65	2 1/2	239	159	142	81	M6	259	257
80	3	285	207	148	99.7	M8	304	301
100	4	316	207	148	119.7	M8	372	367

Size A	Size B	TS Socket JIS PVC,HT,CPVC L	TS Socket ASTM PVC,HT,CPVC L	TS Socket DIN PVC,HT,CPVC L	Thread JIS,DIN (Rc) PVC L	Thread JIS,DIN (Rc) PVDF L	Thread ANSI (NPT) PVC L	Thread ANSI (NPT) PVDF L	Thread DIN (Rp) PVC L	Thread DIN (Rp) PVDF L
15	1/2	109	103	92	97	99	97	99	97	99
20	3/4	132	119	107	117	116	117	116	117	116
25	1	143	133	121	128	136	128	136	128	136
32	1 1/4	166	147	137	146	148	146	148	146	148
40	1 1/2	175	171	161	163	169	163	169	163	169
50	2	203	188	189	188	196	188	196	188	196
65	2 1/2	259	211	211	227	227	212	212	212	212
80	3	311	262	263	278	278	261	261	261	261
100	4	390	315	315	330	330	315	315	315	315

Size A	Size B	Butt Spigot DIN PP,PVDF L	Butt Spigot DIN PE L	Butt Spigot JIS PE L	Socket welding DIN PP L	Ref.Weight Body:PVC (kg/unit) Flange	Ref.Weight Body:PVC (kg/unit) TS Socket Thread
15	1/2	143	210	-	103	3.0	2.8
20	3/4	152	220	-	114	3.3	2.9
25	1	161	237	247	126	3.5	3.0
32	1 1/4	167	258	-	141	3.9	3.2
40	1 1/2	190	292	291	162	4.5	3.7
50	2	216	325	314	185	5.3	4.3
65	2 1/2	208	363	-	204	7.1	5.9
80	3	301	424	424	264	11.4	10.3
100	4	340	478	498	317	16.2	15.3



JIS ANSI/ASME/ASTM DIN/ISO



Operating Temperature(℃)

PVC	0～50	PP	−20～80
HT·CPVC	0～90	PVDF	−20～100

ESLON ELECTRIC BALL VALVE TYPE N

Feature

- Light weight and compact of actuator with aluminum die-cast housing.
- Excellent chemical and corrosion resistance.
- Available 2 type of rotation speed by motor, standard type and high speed type for open-close operation.
- Visually confirmable valve action and open-close position, available manual open-close operation.

Time For Open-Close (50/60Hz)

Size (A)	Time(Sec.)	
	Standard Type	Higher Speed Type
15A	5.4/4.5	3/2.5
20,25A	15.5/13	15/22.5
32,40A	16/13.5	6/5
50,65A	–	3～4
80,100A	–	6～10

Specification of Actuator

Type		Standard Type		High Speed Type	
Nominal diameter(A)		15～32A	40A	15～40A	50～100A
Input system		Power switching system			
Contact output		Power supply voltage			
Operating voltage		Single-Phase AC100/110,200/220V(50/60Hz)			
Motor	Type	Synchronous motor		Reversible motor	DC Motor
	Time rating	15 minutes rating under loading rate 20%			
Protect		Thermal protect inside		Thermal protect inside	Thermistor type
Power consumption		16VA	19VA	50VA	100VA max.
Manual operation		Release of the screw lock		Drive shaft direct operation	
Connector type		G3/8 wire connector (φ5～φ10.5Cabtire cable)			
Material		ADC Resin Coating			
Protection		IP65			
Condensation prevention		Built-in space heater			

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

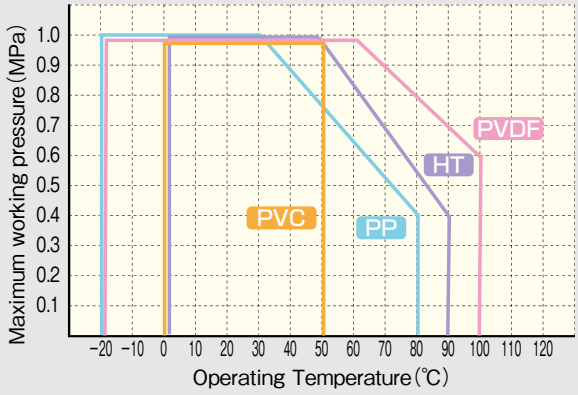
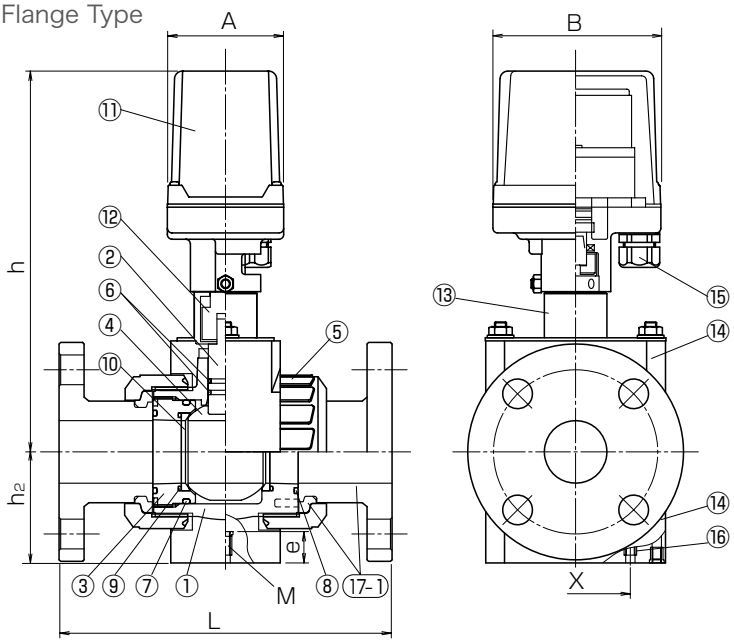
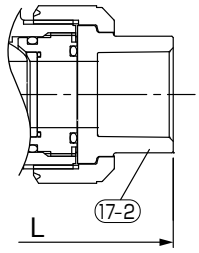


Figure (Flange Type・TS Socket Type・Thread Type・Butt Type)

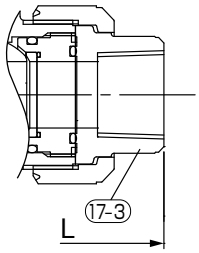
● Flange Type



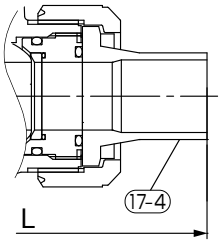
● TS Socket Type



● Thread Type



● Butt Type



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	● PVC ● HT(JIS:Brown) ● CPVC(ANSI･DIN:Gray) ● PP ● PVDF
2	Stem	1	
3	Ball holder	1	
4	Ball	1	
5	Union nut	2	
6	Stem O-ring*1	2	● EPDM ● FKM
7	Ball holder O-ring	1	
8	Union O-ring	2	
9	Ball seat O-ring	2	
10	Ball Seat	2	PTFE
11	Actuator	1	ADC+Resin Coating
12	Connector	1	C3604

No.	Part Name	Q'TY	Material ／ Type
13	Yoke	1	SUS304
14	Mount	2	FRP
15	Electric Conduit Gland	1	PA、G1/2
16	Fixing Insert Nut	–	C3601
17-1	Flange,Set ring	2	● PVC ● HT ● CPVC ● PP ● PVDF
17-2	TS Socket	2	● PVC ● HT ● CPVC
17-3	Threaded socket	2	●PP ●PVDF ●PE
17-4	Butt Spigot Type	2	PVDF

*1 Stem O-Ring material will be FKM+PTFE in case of Oil Free.

Option

- No-voltage limit switch
- Space heater(Standard)

Size

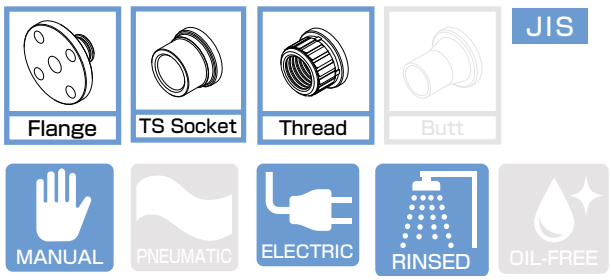
Flange Type・Thread Type・TS Socket Type・Butt Type

Unit : mm

Size		L						h		h2		Actuator		X	Y	M
A	B	Flange		TS Socket	Thread		Butt Spigot	Standard Type	Higher Speed Type	Flange	TS, Thread, Butt	A	B			
		PVC･HT	PP･PVDF	PVC･HT	PVC	PVDF	PVDF									
15	1/2	143	143	109	97	99	143	166	193	49	30	74	107	50	–	M6
20	3/4	172	172	132	117	116	152	168	195	52	34	74	107	50	–	M6
25	1	187	187	143	128	136	161	181	208	64	39	74	107	50	–	M6
32	1 1/4	190	190	166	146	148	167	228	228	69	49	74	107	55	–	M6
40	1 1/2	212	212	175	163	169	190	244	244	71	59	74	107	70	–	M8
50	2	234	234	203	188	196	216	–	331	79	74	160	175	85	–	M8
65	2 1/2	259	257	259	227	227	208	–	351	89	89	160	175	115	38	M8
80	3	304	301	311	278	278	301	–	377	110	110	160	175	140	48	M8
100	4	372	367	390	330	330	340	–	412	140	140	160	175	180	59	M8

Size		Ref. Weight (kg/unit)		Actuator	
A	B	Flange	TS,Thread	Standard Type	High Speed Type
15	1/2	2.0	1.7	AM-030	AH-070 ※
20	3/4	2.2	1.8	AM-070	AH-070 ※
25	1	2.5	2.0	AM-070	AH-070 ※
32	1 1/4	3.3	2.7	AM-180	AH-180 ※
40	1 1/2	3.9	3.4	AM-180	AH-180 ※
50	2	11.0	10.0	–	AD-300
65	2 1/2	14.0	13.0	–	AD-300
80	3	18.0	17.0	–	AD-700
100	4	24.5	24.0	–	AD-700

※ No-voltage limit switch is not available



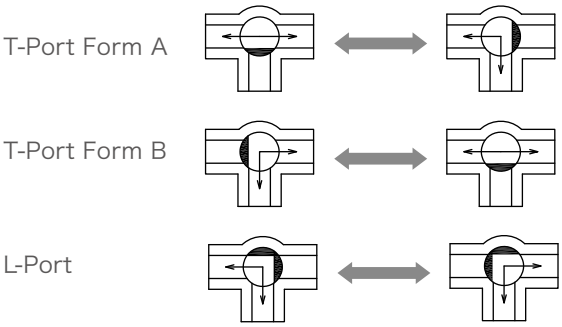
Operating Temperature(℃)

PVC	0～50

ESLON ELECTRIC 3-WAY BALL VALVE

Feature

- Open/close position and flow rate control in 3-way
- Light weight and compact of actuator with aluminum die-cast housing.
- Excellent chemical and corrosion resistance.
- Visually confirmable valve action and open-close position, available manual open-close operation.



Specification of Actuator

Nominal diameter(A)		15～25A	32～50A
Input system		Power switching system	
Contact output		Power supply voltage	
Operating voltage		Single-phase AC100/110,200/220V(50/60Hz)	
Motor	Type	Synchronous motor	Reversible motor
	Time rating	15 minutes rating under loading rate 20%	
Protect		Thermal protect inside	
Power consumption		19VA	60VA
Manual operation		Drive shaft direct operation	
Connector type		G1/2 conduit (Cable connector) (Φ6-12 cabtire cable)	
Material		ADC Resin Coating	
Protection		IP65	
Condensation prevention		Built-in space heater	

Time For Open-Close (50/60Hz)

Size (A)	Time(Sec.)
15-25A	9.5/8
40,50A	7.6/6

⚠ Important Notes

- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

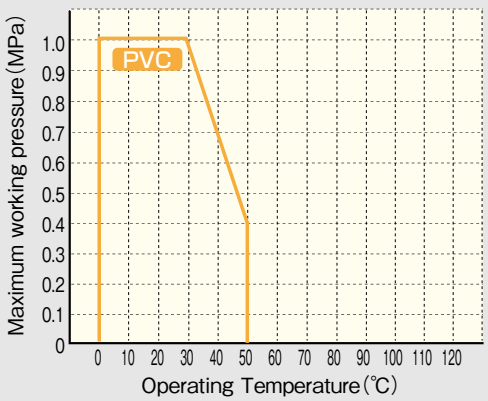
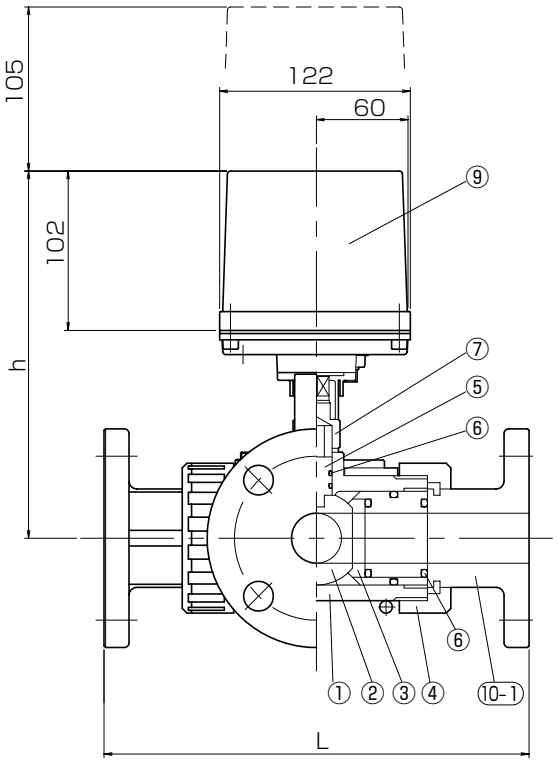
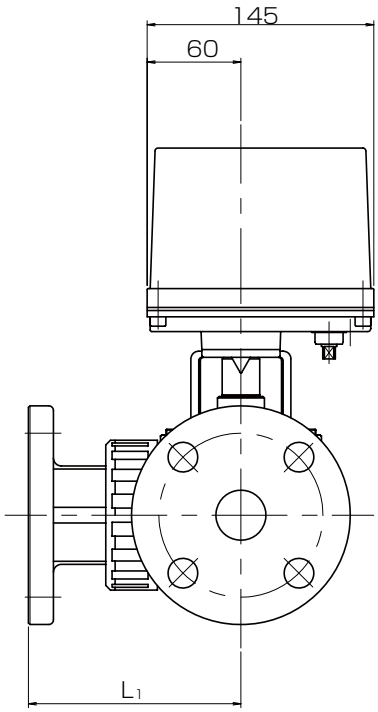


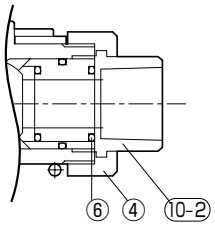
Figure (Flange Type・TS Socket Type・Thread Type)

● Flange Type

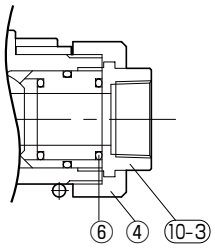




● TS Socket Type



● Thread Type



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	PVC
2	Ball	1	PVC
3	Ball holder	2	PVC
4	Union nut	3	PVC
5	Stem	2	PVC
6	O-ring	11	● EPDM ● FKM
7	Connector	1	C3604BD
8	Yoke	1	SCS13
9	Actuator	1	ADC+Resin Coating
10-1	Flange,Set ring	3	PVC
10-2	TS Socket	3	PVC
10-3	Threaded socket	3	PVC

Option

● No-voltage limit switch

● Space heater(Standard)

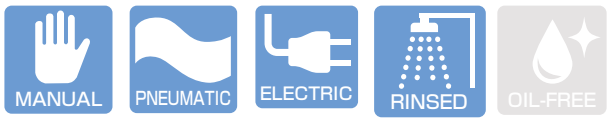
Size

Flange Type・Thread Type・TS Socket Type

Unit : ㎜

Size		L			L1			h	Actuator		Ref. Weight (kg/unit)		Actuator
A	B	Flange	TS Socket	Thread	Flange	TS Socket	Thread		A	B	Flange	TS, Thread, Butt	
15	1/2	163	129	118	82	65	59	202	145	122	3.7	3.2	AE-120
20	3/4	200	151	134	100	76	67	206	145	122	3.9	3.4	AE-120
25	1	221	175	156	111	88	78	221	145	122	4.5	3.6	AE-120
40	1 1/2	272	232	203	136	116	102	235	145	122	5.8	4.9	AE-300
50	2	306	260	225	153	130	113	246	145	122	7.3	5.7	AE-300

JIS ANSI/ASME DIN



Operating Temperature(℃)

PVC	0～50
PP	0～80
PVDF	0～120

ESLON ELECTRIC BUTTERFLY VALVE TYPE K

Feature

- Light weight and compact of actuator with aluminum die-cast housing.
- Excellent chemical and corrosion resistance.
- Visual position indicator built in the actuator.
- Easy flow control and water hammer prevention by slow action.
- Suitable for frequent operation with constant rating type of motor onboard.
- Manual open-close operation is available by attached handle.
- Conformity with CE.

Specification of Actuator

Nominal diameter(A)		40~65A	80·100A	125~200A	250·300A
Input system		Power switching system			
Contact output		Power supply voltage			
Operating voltage		Single-phase AC100/110,200/220V(50/60Hz)			
Motor	Type	Reversible motor			
	Time rating	Continuous rating			
Protect		Thermal protect inside Adjustable mechanical stopper for open-side and close-side			
Rated current	100/110V	0.7/0.9A	0.65/0.70A	1.1/1.2A	1.8/2.0A
	200/220V	0.4/0.5A	0.35/0.40A	0.55/0.60A	0.9/1.0A
Manual operation		with manual operation mechanism			
Connector type		G1/2 conduit (Cable ODΦ9~11)			
Material		ADC12 Resin coating			
Protection		IP66			

Time For Open-Close (50/60Hz)

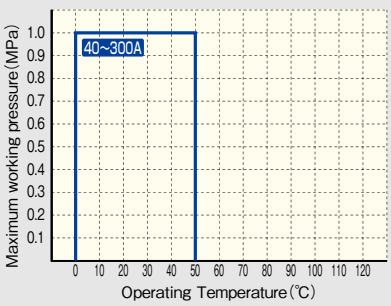
Size (A)	Time(Sec.)
40-65A	15/12.5
80-300A	30/25

⚠ Important Notes

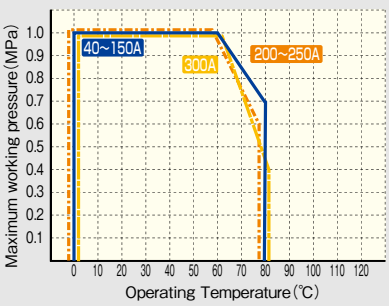
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Maximum Working Pressure - Temperature Rating

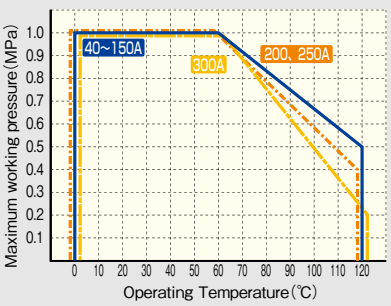
Body material : PVC



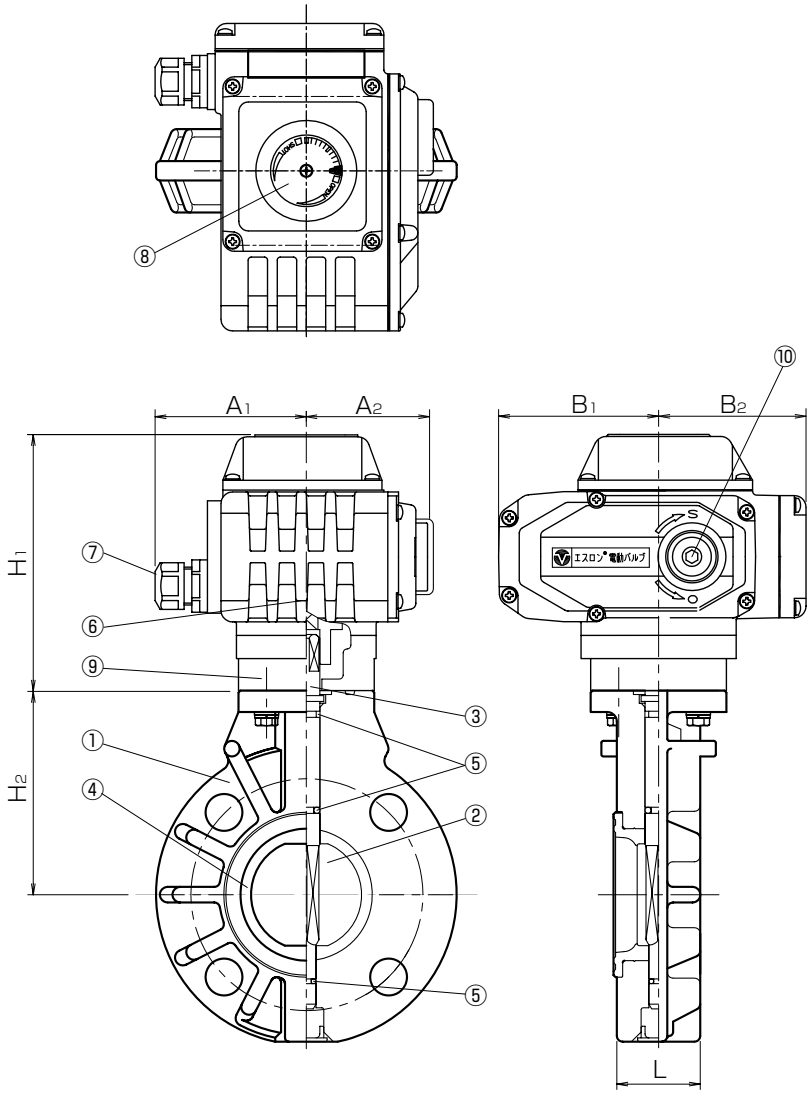
Body material : PP



Body material : PVDF



Figure



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	Body/Disc ● PVC／PP ● PP／PP ● PVDF／PVDF
2	Disc	1	
3	Shaft	1	● SUS420J2 ● SUS316
4	Seat Ring	1	● EPDM ● FKM
5	O-Ring	1	
6	Actuator	1	ADC12
7	Electric Conduit Gland	1	PA、G1/2
8	Indicator	1	—
9	Yoke	1	AC4A+Resin Coating
10	Handle shaft hole(Hex.)	1	S45C

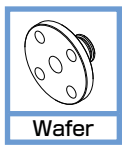
Option

- No-voltage limit switch
- Potentiometer
- Space heater
- Proportional control (please contact us)
- Sodium resistance coating, Acid resistance coating.

Size

Unit : mm

Size		L	h	H_1	H_2	A_1	A_2	Ref. Weight (kg/unit)	Actuator
A	B								
40	1 1/2	33	230	134	105	63.5	78.0	3.3	EF-05
50	2	43	237	134	112	63.5	78.0	3.5	EF-05
65	2 1/2	46	248	134	123	63.5	78.0	3.8	EF-05
80	3	46	282	160	130	67.0	80.5	6.1	EF-10
100	4	52	302	160	152	67.0	80.5	6.9	EF-10
125	5	56	348	191	169	94.0	88.5	11.8	EF-20
150	6	60	357	191	178	94.0	88.5	12.8	EF-20
200	8	71	409	191	230	94.0	88.5	15.1	EF-20
250	10	78	486	236	250	137.0	105.0	33.0	EF-60
300	12	114	516	236	280	137.0	105.0	40.1	EF-60



JIS ANSI/ASME DIN

Operating Temperature(℃)

PVC	0～50
PP	0～80
PVDF	0～120

ESLON ELECTRIC BUTTERFLY VALVE TYPE N

Feature

- Light weight and compact of actuator with aluminum die-cast housing.
- Excellent chemical and corrosion resistance.
- High speed of open-close operation for smaller sizes, easy flow control and water hammer prevention by slow action for larger sizes.

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Specification of Actuator

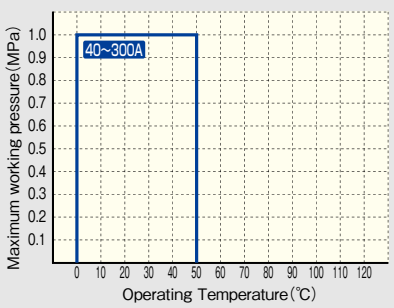
Nominal diameter(A)		40～100A	125～200A	250·300A
Input system		Power switching system		
Contact output		Power supply voltage		
Operating voltage		Single-phase AC100/110,200/220V(50/60Hz)		
Motor	Type	DC Motor		
	Time rating	15 minutes rating under loading rate 20%		
Protect		Thermistor type		
Power consumption		100VA max.	150VA max.	120VA max.
Manual operation		Drive shaft dired operation		Drive shaft manipulation
Connector type		G1/2 wire connector (φ6-12 Cabtire cable)		
Material		ADC Resin Coating		
Protection		IP65		
Condensation prevention		Built-in space heater		

Time For Open-Close (50/60Hz)

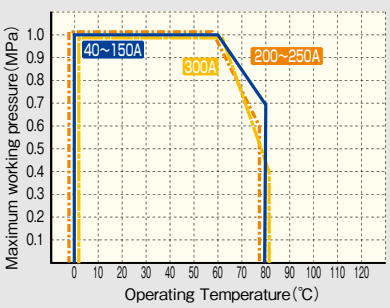
Size (A)	Time(Sec.)
40-65A	3～4
80-100A	6～10
125-200A	8～15
250-300A	24～45

Maximum Working Pressure - Temperature Rating

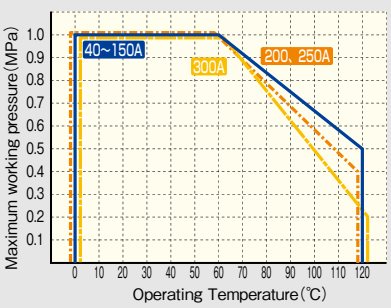
Body material : PVC



Body material : PP

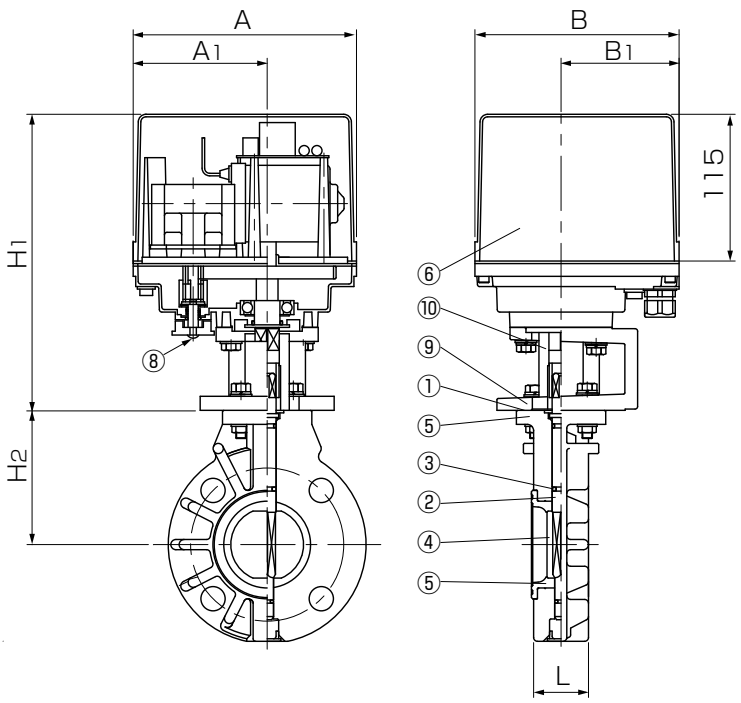


Body material : PVDF

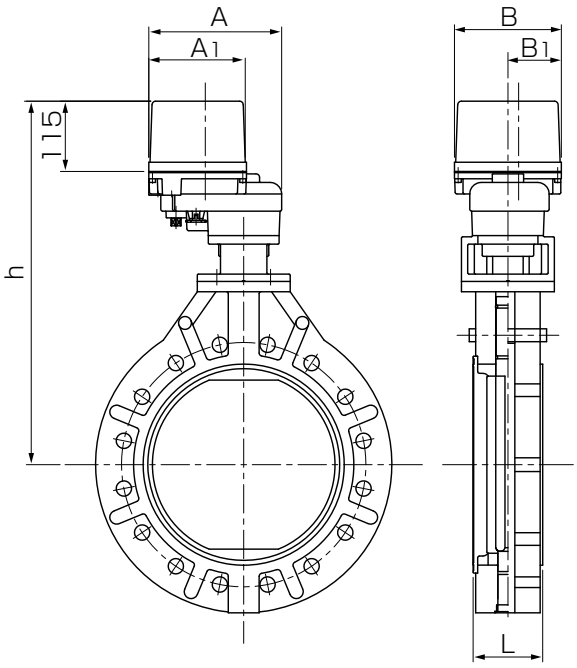


Figure

〔40A～200A〕



〔250・300A〕



Parts List

No.	Part Name	Q'TY	Material ／ Type
1	Body	1	Body/Disc ● PVC／PP ● PP／PP ● PVDF／PVDF
2	Disc	1	
3	Shaft	1	● SUS420J2 ●SUS316
4	Seat Ring	1	● EPDM ● FKM
5	O-Ring	3	
6	Actuator	1	ADC12
7	Electric Conduit Gland	1	PA、G1/2
8	Manual Handle	1	—
9	Yoke	1	AC4A
10	Connector	1	S45C+Ni Coated

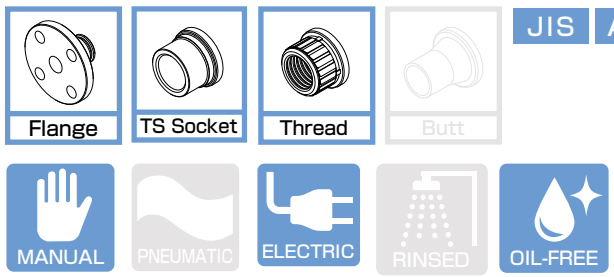
Option

- No-voltage limit switch
- Space heater(Standard)

Size

Unit : ㎜

Size		L	H_1	H_2	Actuator				Ref. Weight (kg/unit)	Actuator
A	B				A	A_1	B	B_1		
40	1 1/2	33	226	105	175	105	160	92.5	7.8	AD-300
50	2	43	226	112	175	105	160	92.5	8.0	AD-300
65	2 1/2	46	226	120	175	105	160	92.5	8.5	AD-300
80	3	46	226	130	175	105	160	92.5	9.0	AD-700
100	4	52	226	152	175	105	160	92.5	10.5	AD-700
125	5	56	256	169	175	105	160	92.5	14.0	HD-02K
150	6	60	256	178	175	105	160	92.5	15.0	HD-02K
200	8	71	256	230	175	105	160	92.5	18.0	HD-02K
250	10	78	315	250	217.5	158	175	87.5	27.0	HD-06K
300	12	114	315	280	217.5	158	175	87.5	34.0	HD-06K



JIS | ANSI / ASME / ASTM | DIN

Operating Temperature(℃)

PVC	0～50

ESLON ELECTRIC YP BALL VALVE

Feature

- Unique flow channel design of the ball enable precise flowrate control.
- Automatic open/close control with 4- 20mA signal input.
- Excellent chemical and corrosion resistance with epoxy resin coated aluminum actuator.
- Compact and high durability motor onboard.
- Visual position indicator built in the actuator.

Time For Open-Close (50/60Hz)

Size (A)	Time(Sec.)
15-25A	10
32-50A	13

Specification of Actuator

Nominal diameter(A)	15～32A	40·50A
Operating voltage	DC24V	
Power consumption	14.4W	
Motor type	Synchronous motor	
Protective function	·Overload (lock) protection function ·Re-starting limit timer	
Opening detection	Potentiometer	
Input signal	DC4-20mA (Input resistance250Ω)	
Output signal	DC1～5V (Allowable load resistance 5kΩ or more)	
Resolution	1/1000	
Manual operation	None.	Drive shaft operation
Connector type	G1/2 female screw with 1m-cable	
Material	ADC	
Protection class	IP55	

⚠ Important Notes

- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Maximum Working Pressure - Temperature Rating

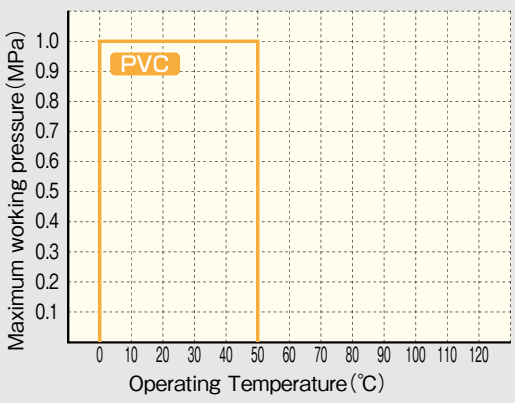
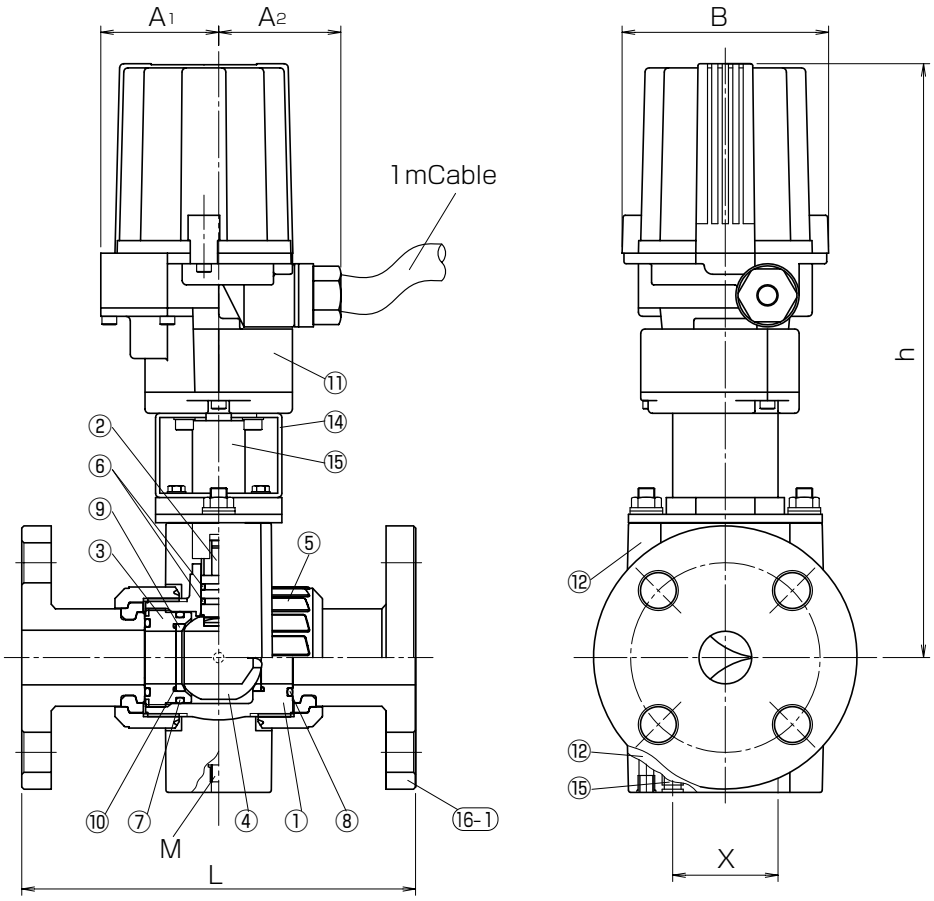
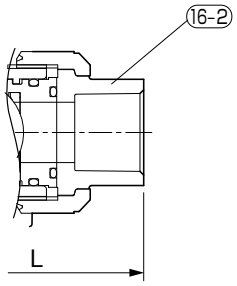


Figure (Flange Type・TS Socket Type・Thread Type)

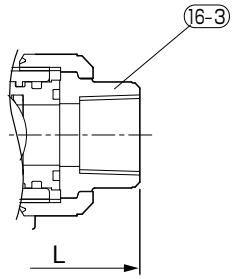
● Flange Type



● TS Socket Type



● Thread Type



Parts List

No.	Part Name	Q'TY	Material / Type	No.	Part Name	Q'TY	Material / Type
1	Body	1	PVC	10	Ball Seat	2	PTFE
2	Stem	1	PVC	11	Electric Actuator	1	–
3	Ball holder	1	PVC	12	Yoke	1	SUS304
4	Ball	1	PVC	13	Joint	1	SUS303
5	Union nut	2	PVC	14	Mount	2	FRP
6	Stem O-ring	–	● EPDM ● FKM	15	Insert Nut	2	C3604
7	Ball holder O-ring	1		16-1	Flange、Set Ring	2	PVC
8	Union O-ring	2		16-2	TS Socket	2	PVC
9	Ball seat O-ring	2		16-3	Thread Socket	2	PVC

Size

Flange Type・Thread Type・TS Socket Type

Unit : mm

Size		L									h	Actuator			X	M	Ref. Weight (kg/unit)		Actuator
A	B	Flange			TS Socket			Thread				A1	A2	B			Flange	TS,Thread	
		JIS10K	ANSI	DIN	JIS10K	ANSI	DIN	JIS,DIN(Rc)	ANSI(NPT)	DIN(Rp)									
15	1/2	143			109	103	92	97			267	63	58	98	50	M6	3.5	3.1	MRP5
20	3/4	172			132	119	107	117			270	63	58	98	50	M6	4.0	3.5	MRP5
25	1	187			143	133	121	128			282	63	58	98	50	M6	4.5	4.0	MRP5
32	1 1/4	190			166	147	137	146			286	63	58	98	55	M6	5.0	4.5	MRP5
40	1 1/2	212			175	171	161	163			336	56	118	110	70	M8	6.0	5.5	MRP6
50	2	234			203	188	189	188			343	56	118	110	85	M8	7.0	6.4	MRP6

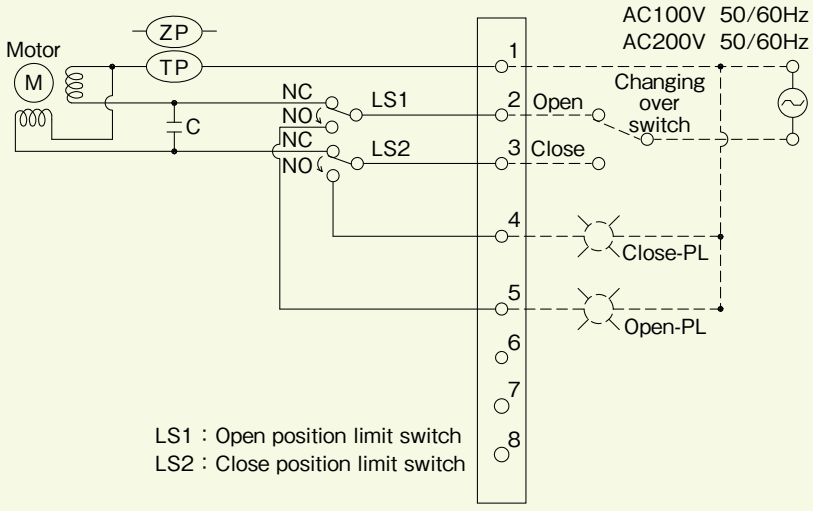
CONNECTING DIAGRAM

Connecting diagrams below are for the standard type of actuators, additional diagram must be referred to diagram for optional accessories.

Precaution

⚠ Do not apply the current to selector switches for both open and close at same time.
⚠ Selector switch must be independently installed for each valve to prevent malfunction.

ELECTRIC DIAPHRAGM VALVE TYPE KS

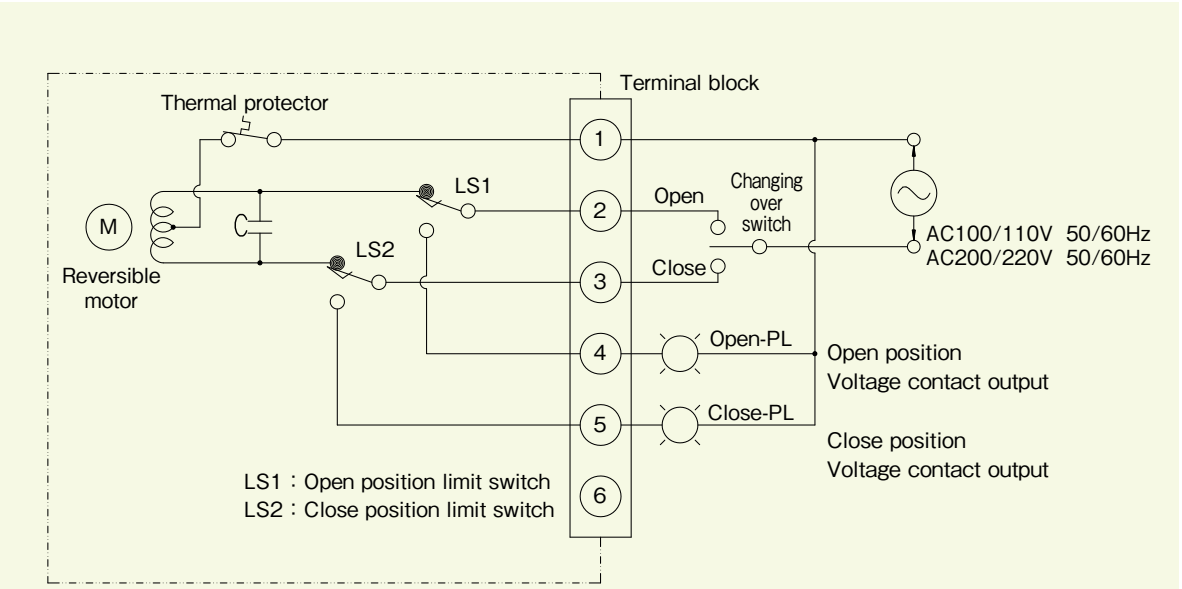


ZP : Impedance protector
(Diaphragm Valve 15~25A)

TP : Thermal protector
(Diaphragm Valve 32~150A)

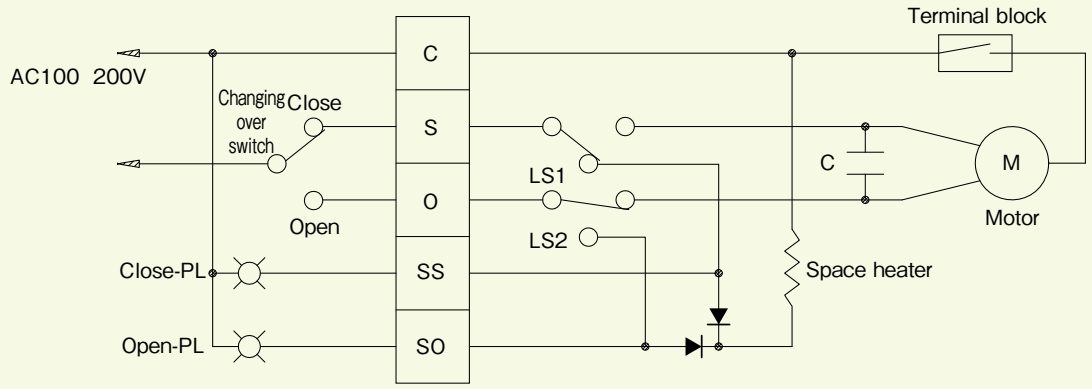
Terminal 1 : Power source common terminal
2 : Power terminal for opening
3 : Signal terminal for closing
4 : Signal terminal for closing
5 : Signal terminal for opening
6 : be not in use
7 : be not in use
8 : be not in use

ELECTRIC BALL VALVE TYPE K, ELECTRIC BUTTERFLY VALVE TYPE K



Terminal 1 : Power source common terminal
2 : Power terminal for opening
3 : Signal terminal for closing
4 : Signal terminal for opening
5 : Signal terminal for closing
6 : be not in use

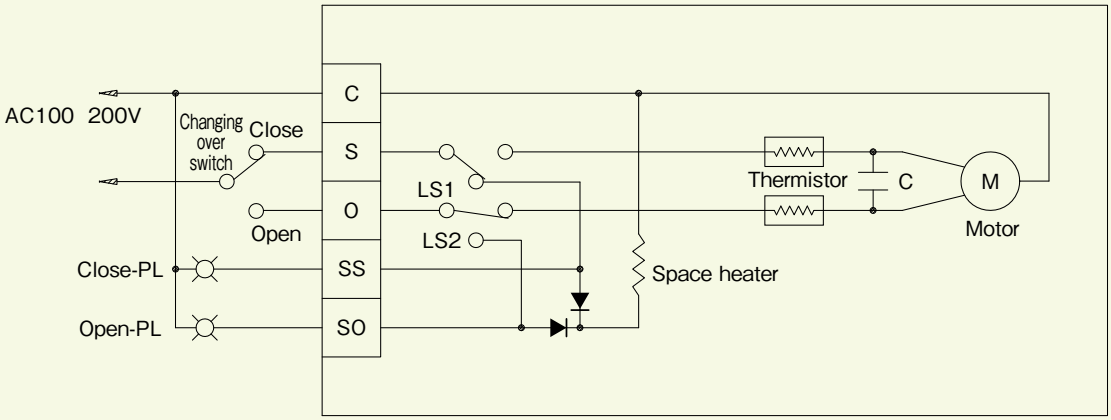
ELECTRIC BALL VALVE TYPE N STANDARD TYPE, 3-WAY BALL VALVE



LS1 : Open position limit switch
LS2 : Close position limit switch

Terminal C : Power source common terminal
S : Terminal for closing
O : Terminal for opening
SS : Signal terminal for closing
SO : Signal terminal for opening

ELECTRIC BALL VALVE TYPE N HIGH SPEED TYPE（15~40A）

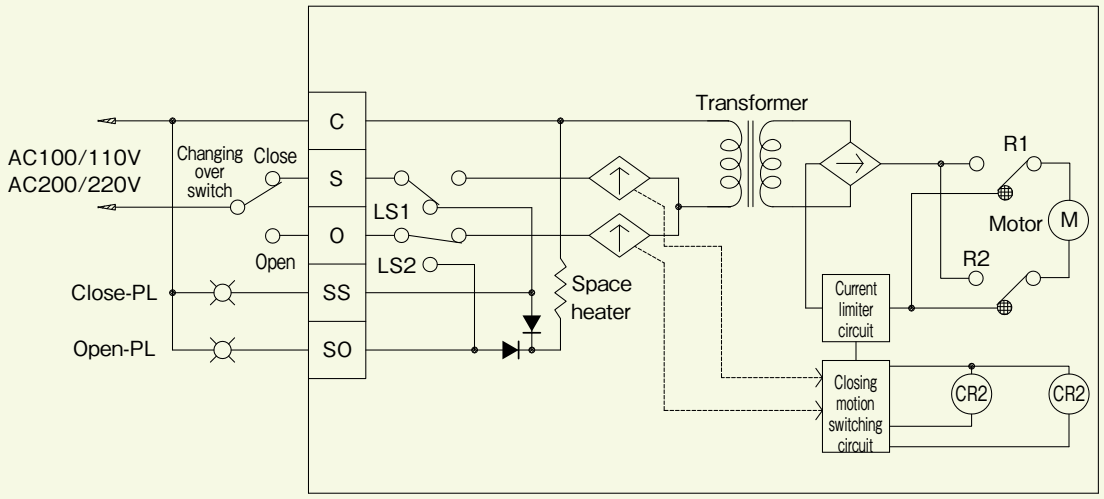


LS1 : Open position limit switch
LS2 : Close position limit switch

Terminal C : Power source common terminal
S : Terminal for closing
O : Terminal for opening
SS : Signal terminal for closing
SO : Signal terminal for opening

CONNECTING DIAGRAM

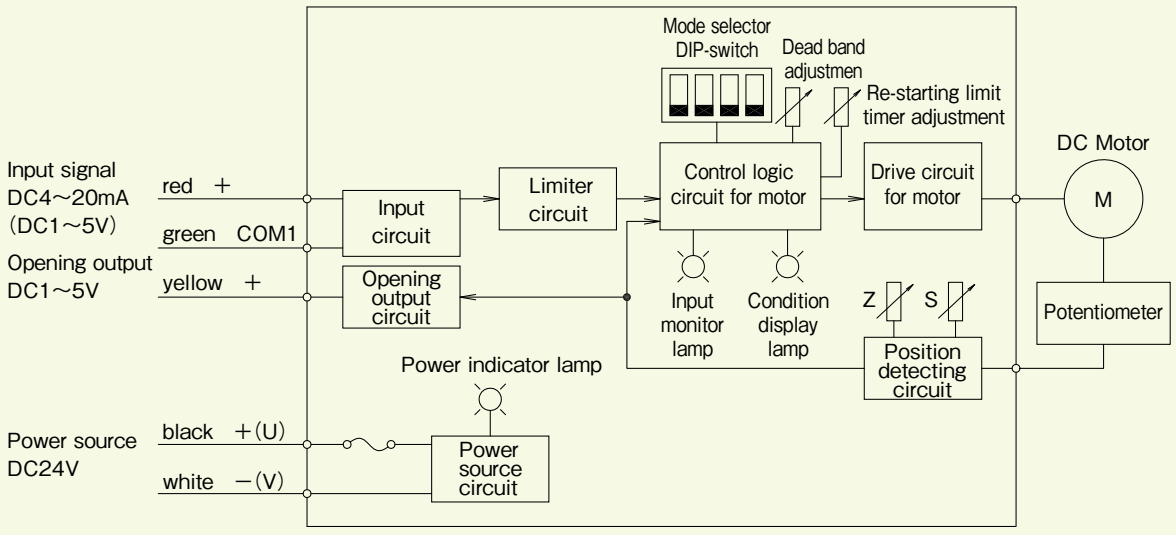
ELECTRIC BALL VALVE TYPE N HIGH SPEED TYPE (50～100A), ELECTRIC BUTTERFLY VALVE TYPE N



LS1 : Open position limit switch
LS2 : Close position limit switch

Terminal C : Power source common terminal
S : Terminal for closing
O : Terminal for opening
SS : Signal terminal for closing
SO : Signal terminal for opening

ELECTRIC YP BALL VALVE



Z : Zero point adjustment
S : Span adjustment

memo

Basic Physical Property of Material for Valve

Characteristic of Material

	Material	Abbreviation	General Characteristic
Valve body	Polyvinyl Chloride	PVC	Resistant against most of acids, alkalis and sodium of high to low concentration level, however tends to be attacked by some chemicals such as aromatic hydrocarbon, ketones, esters and chlorinated hydrocarbon.
	Hi-Impact Polyvinyl Chloride	HI-PVC	Almost same mechanical properties as PVC however higher impact strength and durability. Inferior to PVC in chemical resistance.
	Chlorinated Polyvinyl Chloride	HT CPVC	Almost same properties as PVC however higher heat resistance and usable for higher temperature application than PVC.
	Polypropylene	PP	Resist against most of acids, alkalis and salts however weak resistant against strong acids such as highly-concentrated nitric acid, chrome acid, and mixture of them. Resistant against many solvents (specifically the solvent with active group), however tends to be attacked by chlorine-containing solvents, aliphatic series, and aromatic hydro-carbon.
	Glass Fiber reinforced polypropylene (Trade name Teflon)	GF-PP	Glass fiber reinforced PP(polypropylene) has higher mechanical properties and temperature resistance than PP. High chemical resistance and light weight.
	Polyvinylidene difluoride	PVDF	Highly resistant in higher temperature range, against ordinary acids and chemicals, however broken down by fuming sulfuric acid and strong basic amines. Usable conditions and application are limited for ketones, amides, esters, solvents and alkalis.
Seal material etc	Polytetra-fluoroethylene	PTFE	Highly resistant against ordinary acids and alkalis, and not dissolved nor changed by ordinary solvent medium. Attacked by melted alkali metal and by fluorine and chlorine trifluoride in high temperature.
	Ethylene Propylene Rubber	EPDM	Chemical resistant and ozone resistant. Comparatively resistant against ketones and esters, however weak resistant against aromatics, alphatic families, gasoline, and oil.
	Fluor rubber (Trade name Viton)	FKM	Highly resistant against ordinary chemicals, especially acids. Resistant against oils, however attacked by ketones, ammonia anhydride, concentrated caustic soda, etc.
	Chlorinated polyethylene	FKM-FB	Enhanced FKM in chemical resistance. Superior resistant especially against high-temperature acids and highly concentrated acids. Remarkably low metal elution by chemicals. Same level of oil-resistance and high temperature resistance as FKM.
	Polyvinylidene chloride	PVDC	Almost same properties as PVC however resistant and durability in higher temperature.

Basic Physical Property of Material for Valve at Temp.23℃

Material / Property	Unit	PVC	HI-PVC	HT CPVC	PP	GF-PP	PVDF	PTFE
Density	g/cc	1.43	1.40	1.48	0.92	1.04	1.77	2.17
Water Absorption	mg/m²	0.04~0.06	0.04~0.06	0.04~0.06	0.01		0.04≦	0.00
Tensile Strength Yield	MPa	50~55	40~45	50~55	35~40	77~83	49~54	17~22
Modulus of Elasticity	MPa	$2.5\sim3.0\times10^3$	$2.0\sim2.5\times10^3$	$2.5\sim3.0\times10^3$	$1.0\sim1.5\times10^3$	$3.3\sim3.8\times10^3$	$2.3\sim2.8\times10^3$	$3.7\sim4.2\times10^2$
Flexural Strength	MPa	78~89	76~81	88≦	24~35	93~98	64≦	
Sharpy Impact Strength	kJ/m²	5~10	not break (90≦)	10~15	3~8	7~12	17~21	2~5
Heat Deflection Temperature	℃	61~66	63~68	98~103	118~123	145~150	145~150	
Linear Expansion Coefficient	/℃	7×10^{-5}	7×10^{-5}	7×10^{-5}	12×10^{-5}	4.5×10^{-5}	12×10^{-5}	10×10^{-5}
Thermal Conductivity	W/m·K	0.15	0.15	0.14	0.12		0.12	0.7
Dielectric Strength	kV/mm	40≦	40≦	40≦	26	26	70	
Volume Resistivity	Ωcm	5.3×10^{15}≦	5.3×10^{15}≦	5.3×10^{15}≦	4.9×10^{15}≦		5×10^{15}≦	1×10^{18}

·This data is intended to serve as reference.

Chemical Resistance Guide

Please refer to "Chemical Resistance Manual for Eslon Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.
2 "PVC" in chemical resistance guide does not include "HI-PVC".
3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration(%)	Temp. (℃)	Temp. (°F)	Plastic						Rubber			Metal	
				PVC	CPVC (HT)	PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM FB	SUS 304	SUS 316
Hydrochloric acid HCl	15	20	68	+	++	++	++	++	++	++	++	++	−−	−−
		40	104	+	++	++	++	++	++	+	+	++		
		60	140	+	++	++	++	++	++	−	−	++		
		80	176		++	++	++	++	++	−−	−−	+		
		100	212					++	++					
		120	248											
	35	20	68	+	++	++	++	++	++	+	++	++	−−	−−
		40	104	+	++	++	++	++	++	−	−	++		
		60	140	+	+	++	++	++	++	−−	−−	+		
		80	176		+	+	++	++	++			+		
		100	212					+	++					
		120	248											
	38	20	68	+	++	++	++	++	++	+	+	++	−−	−−
		40	104	−	++	++	++	++	++	−	−	+		
		60	140	−	+	++	+	++	++	−−	−−	+		
		80	176		+	+		++	++			−		
		100	212					+	++					
		120	248											
Nitric acid HNO_3	10	20	68	++	++	++	++	++	++	++	++	++	++	++
		40	104	++	++	++	++	++	++	++	++	++	++	++
		60	140	+	++	++	++	++	++	+	+	++	++	++
		80	176		+	+		++	++	−−	−−	++	++	++
		100	212					++	++				+	
		120	248											
	30	20	68	++	++	++	++	++	++	+	++	++	++	++
		40	104	+	+	++	++	++	++	+	+	++	++	++
		60	140	−	−	+	++	++	++	−−	+	++	+	+
		80	176		−−	+		++	++		−	+	+	+
		100	212					++	++		−	+	+	+
		120	248											
	50	20	68	++	++	++	++	++	++	−−	++	++	++	++
		40	104	−	−	+	++	++	++		+	++	+	+
		60	140	−−	−−	−		+	++		−	+	+	+
		80	176			−−		+	++		−−	+	−	−
		100	212					−	++				−	−
		120	248											
	60	20	68	+	+	−	++	++	++	−−	−−	++	++	++
		40	104	−	−	−−		++	++			+	+	+
		60	140	−−	−−			+	++			+	+	+
		80	176					−	++			−	−	−
		100	212						++				−	
		120	248											
	70	20	68	−−	−−	−−	−−	−	++	−−	−−	−	++	++
		40	104					−−	+					
		60	140						+					
		80	176						−					
		100	212						−					
		120	248											
Sulfuric acid H_2SO_4	10	20	68	++	++	++	++	++	++	++	++	++	−−	+
		40	104	++	++	++	++	++	++	++	++	++		−−
		60	140	++	++	++		++	++	++	++	++		
		80	176		++	++		++	++	++	++	++		
		100	212					++	++		++	++		
		120	248											
	30	20	68	++	++	++	++	++	++	++	++	++	−−	−−
		40	104	++	++	++		++	++	++	++	++		
		60	140	++	++	++		++	++	++	++	++		
		80	176		++	++		++	++	+	++	++		
		100	212					++	++	−−	++	++		
		120	248											
	50	20	68	++	++	++	−	++	++	++	++	++	−−	−−
		40	104	++	++	++		++	++	++	++	++		
		60	140	++	++	++		++	++	++	++	++		
		80	176		++	++		++	++	+	++	++		
		100	212					++	++	−−	++	++		
		120	248											

Please refer to "Chemical Resistance Manual for Eslon Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.
2 "PVC" in chemical resistance guide does not include "HI-PVC".
3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant
+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration(%)	Temp. (℃)	Temp. (°F)	Plastic						Rubber			Metal	
				PVC	CPVC (HT)	PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM FB	SUS 304	SUS 316
Sulfuric acid H_2SO_4	70	20	68	++	++	++	−−	++	++	++	++	++	−−	−−
		40	104	++	++	++		++	++	++	++	++		
		60	140	++	++	++		++	++	+	++	++		
		80	176		+	+		+	++	−	++	++		
		100	212					+	++		+	+		
		120	248											
	80	20	68	++	++	++	−−	++	++	++	++	++	−−	−−
		40	104	++	++	++		++	++	++	++	++		
		60	140	+	+	+		++	++	+	++	++		
		80	176		−	+		+	++	−	+	++		
		100	212					+	++		−	+		
		120	248											
	90	20	68	+	+	++	−−	++	++	++	++	++	−−	−−
		40	104	+	+	++		++	++	+	++	++		
		60	140	−	−	+		++	++	−	++	++		
		80	176			+		+	++	−−	+	+		
		100	212					+	+		−−	−		
		120	248											
	98	20	68	+	+	−−	−−	++	++	−−	++	++	−−	−−
		40	104	−	−			+	++		+	++		
		60	140	−−	−−				++		−	+		
		80	176						+					
		100	212											
		120	248											
Hydrofluoric acid HF	Dilute	20	68	++	++	++	++	++	++	++	++	++		
		40	104	++	+	+	++	++	++	++	++	++		
		60	140	−	+	+	++	++	++	++	++	++		
		80	176		−	+	++	++	++	++	++	++		
		100	212			+		++	++	++	++	++		
		120	248								+	+		
	30	20	68	++	++	++	++	++	++	++	++	++		
		40	104	+	+	+	++	++	++	++	++	++		
		60	140	−	−	+	++	++	++	++	++	++		
		80	176	−−	−−	+	++	++	++	+	++	++		
		100	212					++	++	−−	++	++		
		120	248											
	40	20	68	+	+	++	++	++	++	++	++	++		
		40	104	−	−	+	++	++	++	+	++	++		
		60	140	−−	−−	+	++	++	++	−	++	++		
		80	176			+	++	++	++	−−	++	++		
		100	212					++	++		+	++		
		120	248											
	50	20	68	+	+	++	++	++	++	++	++	++	−−	−−
		40	104	−−	−−	+	++	++	++	+	++	++		
		60	140			+	++	++	++	−	++	++		
		80	176			+		++	++		++	++		
		100	212					++	++		+	++		
		120	248								−	+		
Acetic acid CH_3COOH	20	20	68	++	++	++	++	++	++	++	++	++	++	++
		40	104	+	++	++	++	++	++	++	+	++	++	++
		60	140	−	+	+		++	++	+	−	+	++	++
		80	176		−	−		++	++		−−	+	++	++
		100	212					+	++				++	++
		120	248											
	50	20	68	++	++	++	++	++	++	+	+	+	++	++
		40	104	+	+	+	++	++	++	−	−	−	++	++
		60	140	−	−	−		++	++	−−	−−	−−	++	++
		80	176		−−			++	++				++	++
		100	212					+	++				++	++
		120	248											
Chromic acid H_2CrO_4	20	20	68	+	+	−−	++	++	++	+	+	+	+	+
		40	104	+	+		+	++	++	−−	+	+	−	−
		60	140	+	+		+	++	++		+	+	−−	−
		80	176					++	++		−	−		−−
		100	212					++	++		−−	−−		−−
		120	248											

Please refer to "Chemical Resistance Manual for Eslon Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.
2 "PVC" in chemical resistance guide does not include "HI-PVC".
3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration(%)	Temp. (℃)	Temp. (°F)	Plastic						Rubber			Metal	
				PVC	CPVC (HT)	PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM FB	SUS 304	SUS 316
Chromic acid H_2CrO_4	50	20	68	+	+	−−	++	++	++	−−	+	+	+	+
		40	104	+	+		+	−	++				−−	−−
		60	140				+	−−	++					
		80	176						++					
		100	212						++					
		120	248											
Hydrogen peroxide H_2O_2	20	20	68	++	++	++	++	++	++	++	++	++	−−	−−
		40	104	+	+	++	++	++	++	+	++	++	−−	−−
		60	140	−	−	++		++	++	+	++	++	−−	−−
		80	176		−	+		++	++	−	++	++		
		100	212											
		120	248											
	30	20	68	++	−	++	++	++	++	++	++	++	−−	−−
		40	104	+	−	+	++	++	++	+	+	+	−−	−−
		60	140	−		+		++	++	−	−	−	−−	−−
		80	176			−		++	++		−	−		
		100	212											
		120	248											
	50	20	68	+	−	−	++	++	++	−−	−	−	−−	−−
		40	104	−	−−	−−	++	++	++		−−	−−	−−	−−
		60	140					++	++					
		80	176					++	++					
		100	212											
		120	248											
Caustic potash (Potassium hydroxide) KOH	5	20	68	++	++	++	++	++	++	++	+	++	+	+
		40	104	++	+	++	++	++	++	++			+	+
		60	140	+	+	++		+	++	++			+	+
		80	176		+	++		−	++	++			+	+
		100	212					−−	++	+			+	+
		120	248											
	14	20	68	+	+	++	++	++	++	++	+	++	+	+
		40	104	+	−−					++	−−		+	+
		60	140	+	−−					++			+	+
		80	176							++			+	+
		100	212							+			+	+
		120	248											
	25	20	68	++	++	++	++	++	++	++	+	++	+	+
		40	104	++	+	++	++	++	++	++			+	+
		60	140	++	+	++		+	++	++			+	+
		80	176		+	++		−	++	++			+	+
		100	212					−−	++	+			+	+
		120	248											
Sodium hydroxide NaOH	5	20	68	+	+	++	++	++	++	++	++	++	++	++
		40	104	+	−−	++			++	++	++	++	++	++
		60	140	+	−−	++			++	++	+	+	++	++
		80	176						++	+			++	++
		100	212										++	++
		120	248										−−	
	15	20	68	++	+	++	++	++	++	++	+	++	++	++
		40	104	++	−	++		++	++	++	−	+	++	++
		60	140	++	−	++		+	++	++	−−		++	++
		80	176		−−	+		−	++	+			++	++
		100	212					−−	++	+			++	++
		120	248										−−	
	30	20	68	++	++	++	++	++	++	++	−	+	++	++
		40	104	++	++	++		+	++	++	−−	−−	++	++
		60	140	++	+	++		−	++	++			++	
		80	176		−	+		−−	++	++			++	
		100	212						++	+			−	
		120	248										−−	
	50	20	68	++	++	++	++	++	++	++	−−	−−	+	+
		40	104	++	++	++		+	++	++			+	+
		60	140	++	++	++		−	++	++			+	+
		80	176		+	+		−−	++	++			+	+
		100	212						++				+	+
		120	248										−−	−

Please refer to "Chemical Resistance Manual for Eslon Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.
2 "PVC" in chemical resistance guide does not include "HI-PVC".
3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration(%)	Temp. (℃)	Temp. (°F)	Plastic						Rubber			Metal	
				PVC	CPVC (HT)	PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM FB	SUS 304	SUS 316
Sodium hypochlorite NaClO	1ppm	20	68	++	++	++	++	++	++	++	++	++		
		40	104											
		60	140											
		80	176											
		100	212											
		120	248											
	3	20	68	++	++	+	++	++	++	+	++	++	+	+
		40	104	++	++	+	++	++	++	+	++	++	−	+
		60	140	+	−	+	+	++	++	−	++	++	−−	−
		80	176					++						
		100	212					++						
		120	248											
	5	20	68	++	++	+	++	++	++	+	++	++	+	+
		40	104	++	++	+	++	++	++	+	++	++	−	+
		60	140	+	−	−	+	++	++	−	++	++	−−	−
		80	176					++						
		100	212					++						
		120	248											
	7	20	68	++	++	+	++	++	++	+	++	++	+	+
		40	104	++	++	−	++	++	++	+	++	++	−	+
		60	140	+	−	−	+	++	++	−	++	++	−−	−
		80	176					++						
		100	212					++						
		120	248											
	10	20	68	++	++	+	++	++	++	−−	++	++	−−	−−
		40	104	++	++	−	+	++	++		++	++		
		60	140	+	−	−	+	++	++		++	++		
		80	176					++						
		100	212					++						
		120	248											
	13	20	68	++	++	+	++	++	++	−−	++	++	−−	−−
		40	104	++	++	−	+	++	++		+	+		
		60	140	+	−		+	++	++					
		80	176					++						
		100	212					++						
		120	248											
Ferric chloride $FeCl_3$	Satu	20	68	++	++	++	++	++	++	++	++	++	−−	−−
		40	104	++	++	++	++	++	++	++	++	++		
		60	140	+	++	++		++	++	++	++	++		
		80	176		++	++		++	++	++	++	++		
		100	212					++	++	+	+	+		
		120	248											
Ammonia water NH_3Aq	10	20	68	+	−−	++		++	++	++	+	+	++	++
		40	104	+	−−	++		++	++	++	−	−	+	+
		60	140	+	−−	++		++	++	++	−−	−−	+	+
		80	176		−−	+		++	++	++			+	+
		100	212					++	++	++			+	+
		120	248											
	28	20	68	+	−−	++	−−	++	++	++	−	−	++	++
		40	104	+	−−	++		++	++	++	−	−		
		60	140	−	−−	++		++	++	++	−−	−−		
		80	176		−−	++		++	++					
		100	212					++	++					
		120	248											
Toluene (Toluol) $C_6H_5CH_3$	Pure	20	68	−−	−−	+	−−	++	++	−−	−	−		
		40	104			−		++	++					
		60	140			−−		+	++					
		80	176					+	++					
		100	212					−	+					
		120	248						−					
Benzene C_6H_6	Pure	20	68	−	−	+	++	++	++	−−	+	+		
		40	104	−−	−−	−		+	++		+	+		
		60	140					+	++		+	+		
		80	176					+	++		+	+		
		100	212											
		120	248											

Please refer to "Chemical Resistance Manual for Eslon Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.
2 "PVC" in chemical resistance guide does not include "HI-PVC".
3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration(%)	Temp. (℃)	Temp. (°F)	Plastic						Rubber			Metal	
				PVC	CPVC (HT)	PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM FB	SUS 304	SUS 316
Non-ionic Surfactant	10	20	68	−	−−			+	+					
		40	104	−	−−			+	+					
		60	140											
		80	176											
		100	212											
		120	248											
Cationic surfactant	10	20	68	+	−			++	++					
		40	104	+	−			++	++					
		60	140											
		80	176											
		100	212											
		120	248											
Anionic surfactant	10	20	68	+	−			++	++					
		40	104	+	−			++	++					
		60	140											
		80	176											
		100	212											
		120	248											
Methyl alcohol (Methanol) CH_3OH	Pure	20	68	−	−	++	++	++	++	++	++	++	+	++
		40	104	−−	−−	++	++	++	++	++	++	++	+	++
		60	140			+	+	+	+	+	+	+		++
		80	176											
		100	212											
		120	248											
	20	20	68	++	++	++	++	++	++	++	++	++	+	++
		40	104	+	+	++	++	++	++	++	++	++	+	++
		60	140			+	+	+	+	+	+	+		++
		80	176											
		100	212											
		120	248											
Soybean oil	−	20	68	−	−	++		++	++	++	++	++		
		40	104	−	−	++		++	++	++	++	++		
		60	140	−	−	++		++	++	++	++	++		
		80	176		−	+		++	++	−	++	++		
		100	212					++	++	−−	−	−		
		120	248					++	++		−−	−−		
Gasoline	−	20	68	−	−	−−		++	++	−−	+	+		
		40	104					++	++					
		60	140					++	++					
		80	176					++	++					
		100	212											
		120	248											
Kerosene (kerosine)	−	20	68	−	−	+		++	++	−−	++	++		
		40	104	−	−			++	++					
		60	140	−−	−−			++	++					
		80	176					++	++					
		100	212											
		120	248											
Aniline (Aminobenzene) $C_6H_5NH_2$	Pure	20	68	−	−	+	−−	++	++	++	++	++	+	+
		40	104	−−	−−	+		+	++	−	+	+	+	+
		60	140			−		+	++	−−	−	−	+	+
		80	176			−−		−	++				+	+
		100	212					−−	++				+	+
		120	248						++					
Ethanolamine $H_2NCH_2CH_2OH$	Pure	20	68	−−	−−	++		−−	++	+	−−	−−	+	+
		40	104						++				+	+
		60	140										+	+
		80	176										+	+
		100	212										+	+
		120	248										+	+

Flow characteristic of ESLON VALVE

1. Cv value

Cv value (valve constant) is the flow coefficient used in USA, and non-dimensional value representing how many gallons (1 US gallon = 3.7852 liters) of water of 60°F(15.5°C) pass valve for one minute, where the pressure difference at the inlet and the outlet of the valve is 1 psi (0.0703kgf/cm2)at its full open. 1 gallon is treated as 1Cv.

$$Cv = Q\sqrt{\frac{G}{P_1 - P_2}} \qquad Cv = Q\sqrt{\frac{G}{\Delta P}}$$

G:Specific Gravity (water=1)
Q:Flow Rate [US_gal/min]
P1:Valve Inlet Pressure [psi]
P2:Valve Outlet Pressure [psi]
ΔP:P1 - P2 [psi]

Unit	Cv	Q : Flow Rate)	ΔP : Pressure Drop
m^3/hr、kPa	$Cv = 11.6Q_{(h)}\sqrt{\frac{G}{\Delta P_{(k)}}}$	$Q_{(h)} = \frac{Cv}{11.6\sqrt{\frac{G}{\Delta P_{(k)}}}}$	$\Delta P_{(k)} = \frac{G}{\left(\frac{Cv}{11.6\ Q_{(h)}}\right)^2}$
m^3/hr、MPa	$Cv = \frac{1}{2.73}Q_{(h)}\sqrt{\frac{G}{\Delta P_{(M)}}}$	$Q_{(h)} = \frac{2.73\ Cv}{\sqrt{\frac{G}{\Delta P_{(M)}}}}$	$\Delta P_{(M)} = \frac{G}{\left(\frac{2.73\ Cv}{Q_{(h)}}\right)^2}$
L/min、kPa	$Cv = 0.694Q_{(m)}\sqrt{\frac{G}{\Delta P_{(k)}}}$	$Q_{(m)} = \frac{Cv}{0.694\sqrt{\frac{G}{\Delta P_{(k)}}}}$	$\Delta P_{(k)} = \frac{G}{\left(\frac{Cv}{0.694\ Q_{(m)}}\right)^2}$
L/min、MPa	$Cv = \frac{1}{45.7}Q_{(m)}\sqrt{\frac{G}{\Delta P_{(M)}}}$	$Q_{(m)} = \frac{45.7\ Cv}{\sqrt{\frac{G}{\Delta P_{(M)}}}}$	$\Delta P_{(M)} = \frac{G}{\left(\frac{45.7\ Cv}{Q_{(m)}}\right)^2}$

●Flow Rate: Q(h) [m3/hr], Q(m) [L/min]
●Pressure Drop: ΔP(k) [kPa], ΔP(M) [MPa]

Follow Cv value for each valve when valve selection.
When Cv value is

●too small: ①Volumetric flow shortage
②High Pressure drop
●too big: ①Poor Control
②Wrong size

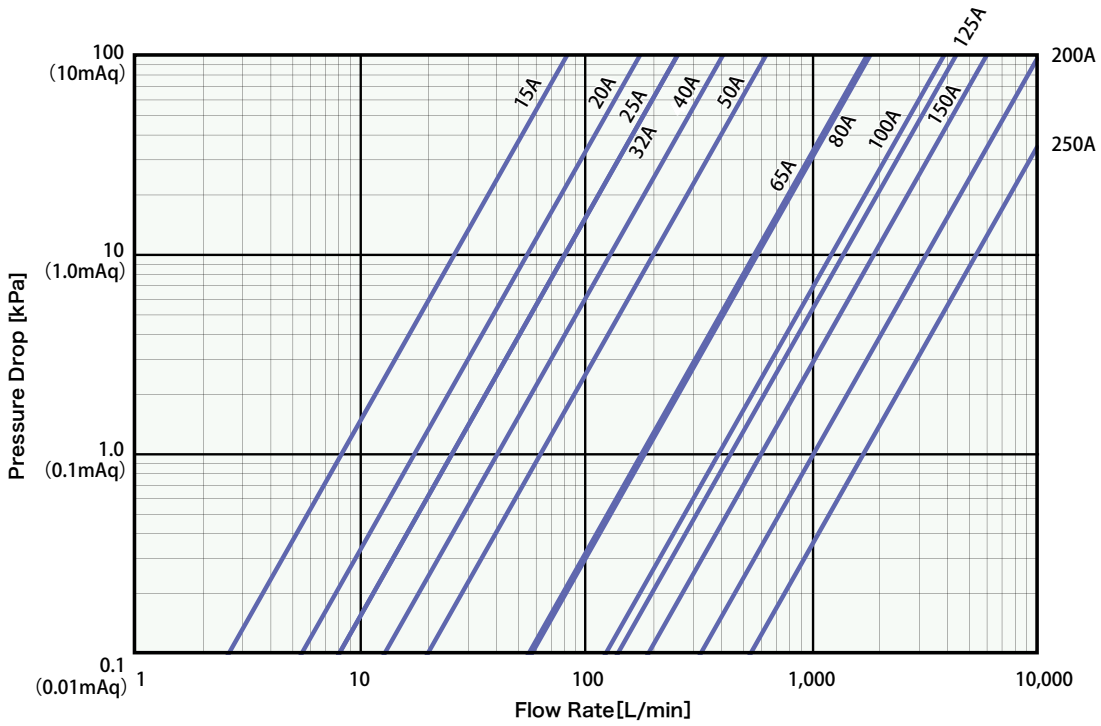
Kv value is the flow capacity coefficient used in the International Standards. It represents how many liters of water can pass the valve for one hour, where the pressure difference at the inlet and the outlet of the valve is 1 bar(1.0197kgf/cm2)at its full open.
The Cv and Kv value for liquids is expressed by the following equation;

$$KV = \frac{1}{1.16}Cv$$

2. Cv value and Flow Rate of ESLON VALVE

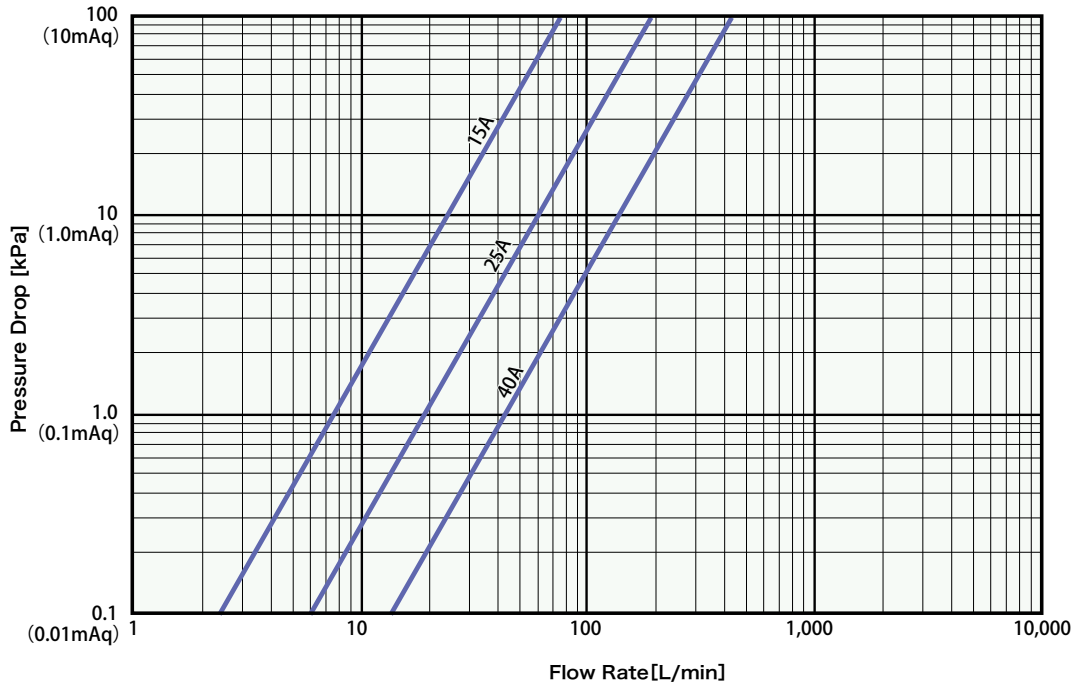
DIAPHRAGM VALVE

Size[A]	15	20	25	32	40	50	65	80	100	125	150	200	250
Cv Value	5.7	12.0	17.6	17.6	28.0	43.5	122	126	268	303	414	707	1177



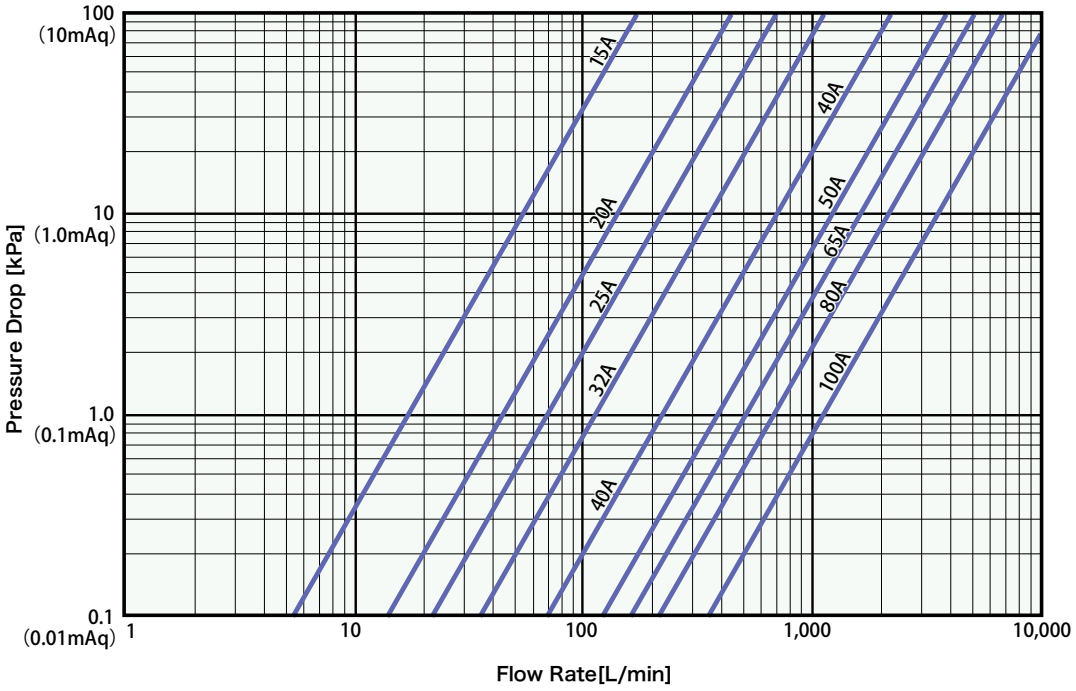
DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE

Size[A]	15	20	25	32	40
Cv Value	5.2	–	13.1	–	30.1



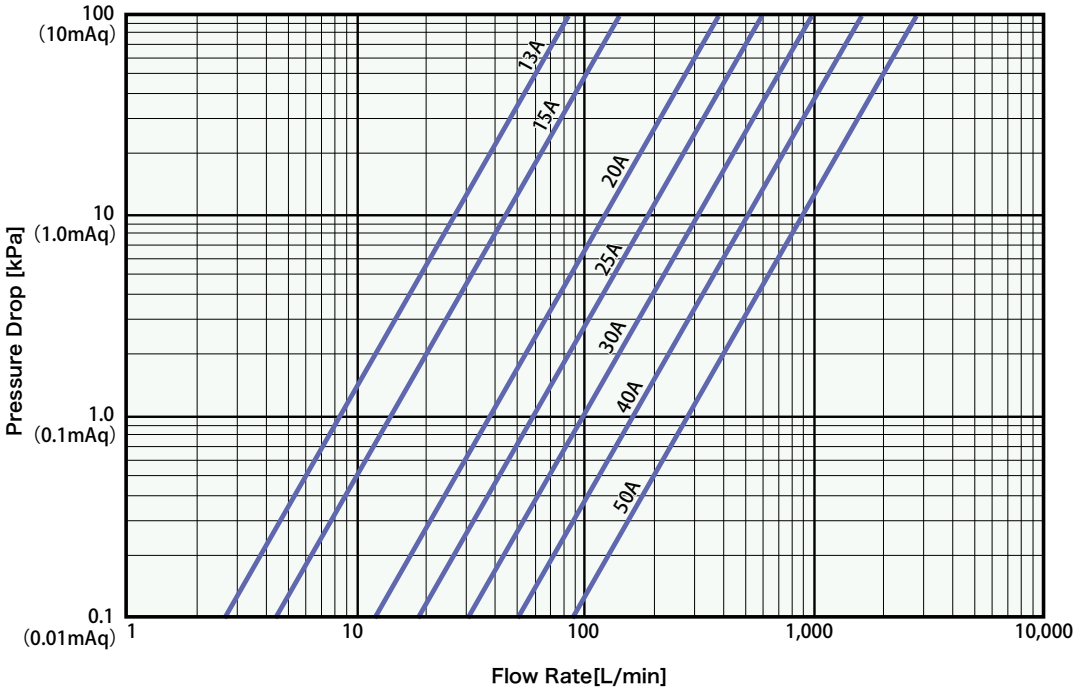
BALL VALVE, BALL BALVE TYPE M

Size[A]	15	20	25	32	40	50	65	80	100
Cv Value	12.1	31.5	48.9	801	154	267	352	471	780



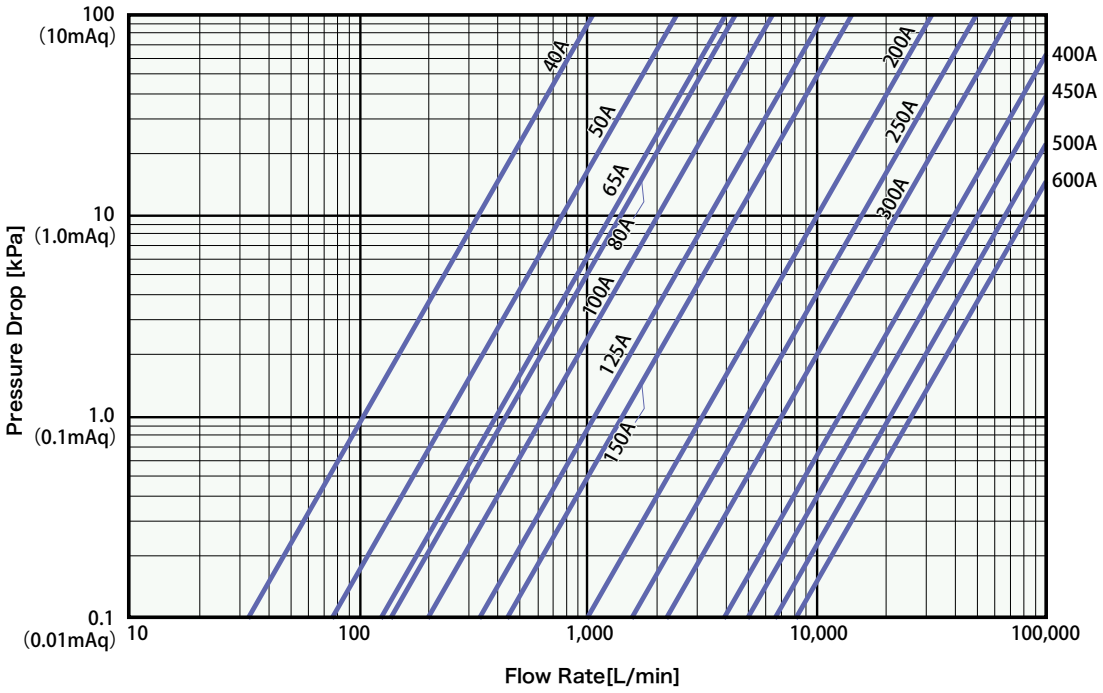
COMPACT BALL VALVE(13 - 20A), LOCK BALL VALVE(25 - 50A)

Size[A]	13	15	20	25	32	40	50
Cv Value	6	10.0	26.8	43.1	69.6	115	196



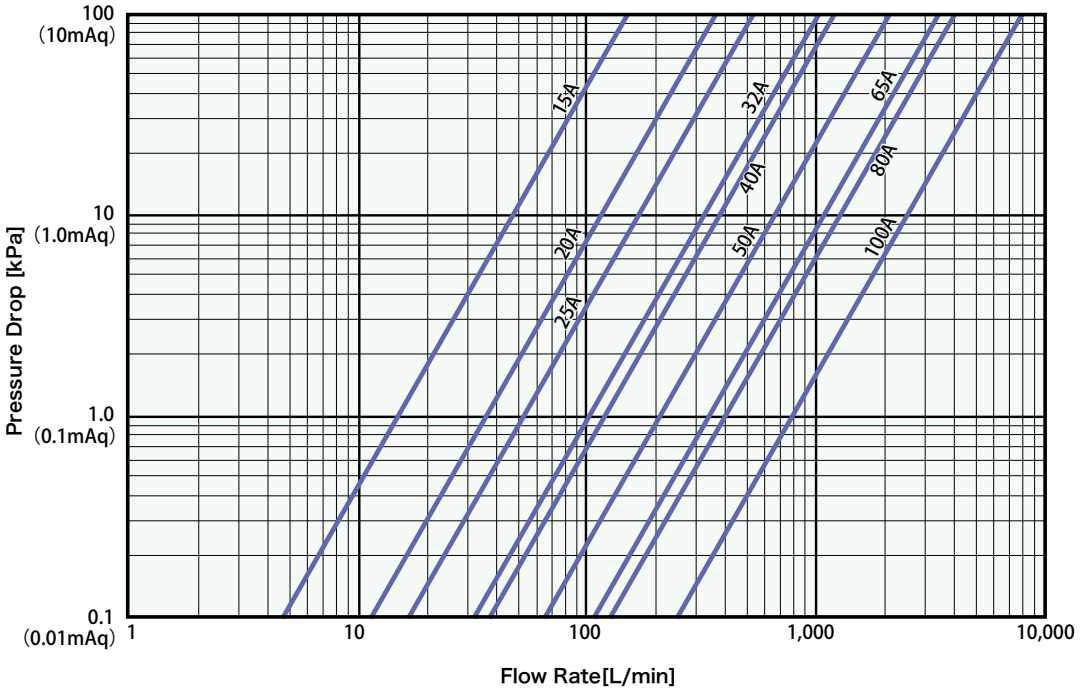
BUTTERFLY VALVE

Size[A]	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Cv Value	74.0	172	282	309	446	755	993	2213	3440	4929	6311	8757	11107	14622	17945



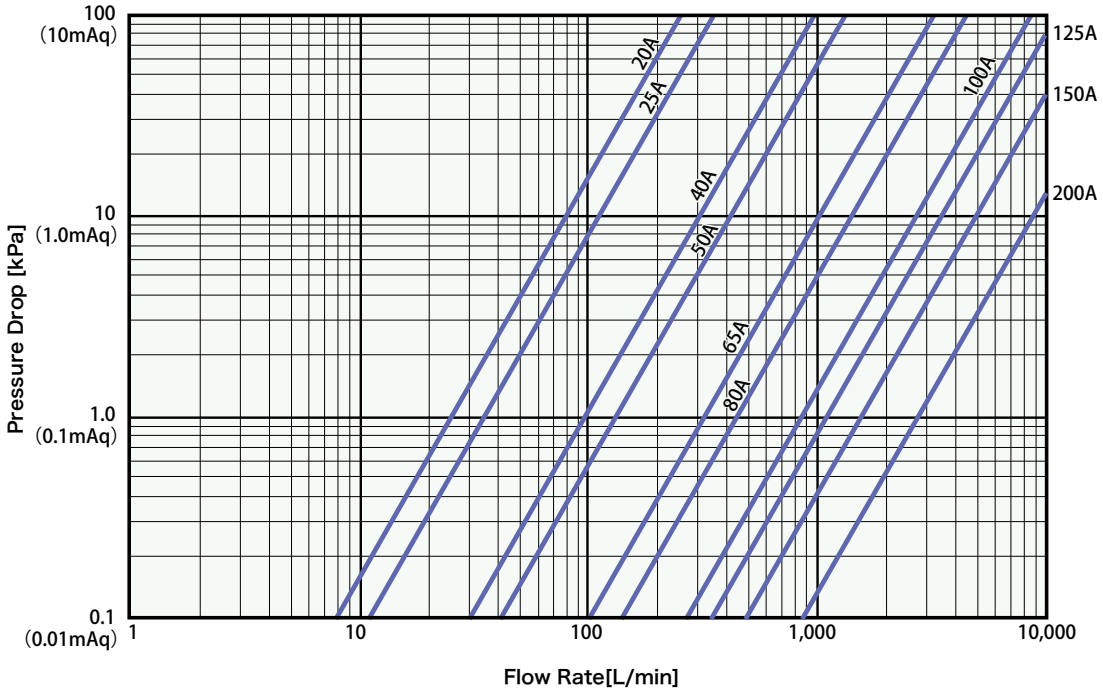
CHECK VALVE BALL TYPE (15～100A)・TRUE UNION CHECK VALUE BALL TYPE (15～50A)

Size[A]	15	20	25	32	40	50	65	80	100
Cv Value	10.5	25.7	36.9	71	84.0	146	235	280	547



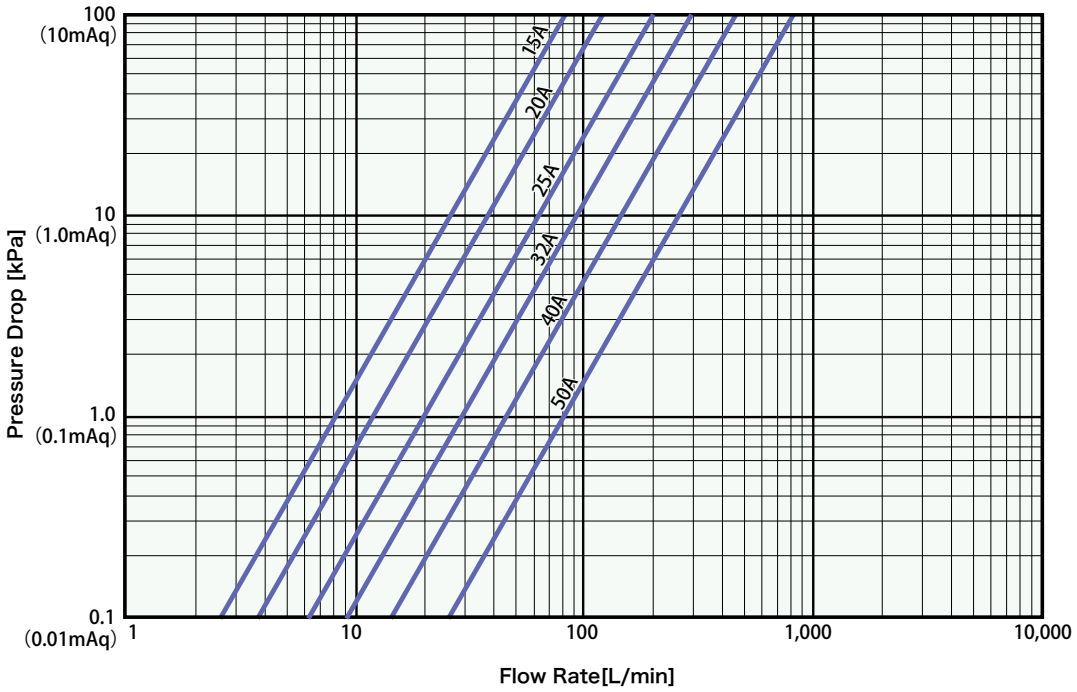
CHECK VALVE SWING TYPE

Size[A]	20	25	40	50	65	80	100	125	150	200
Cv Value	17.6	24.2	67.8	91.4	222	306	596	771	1084	1920



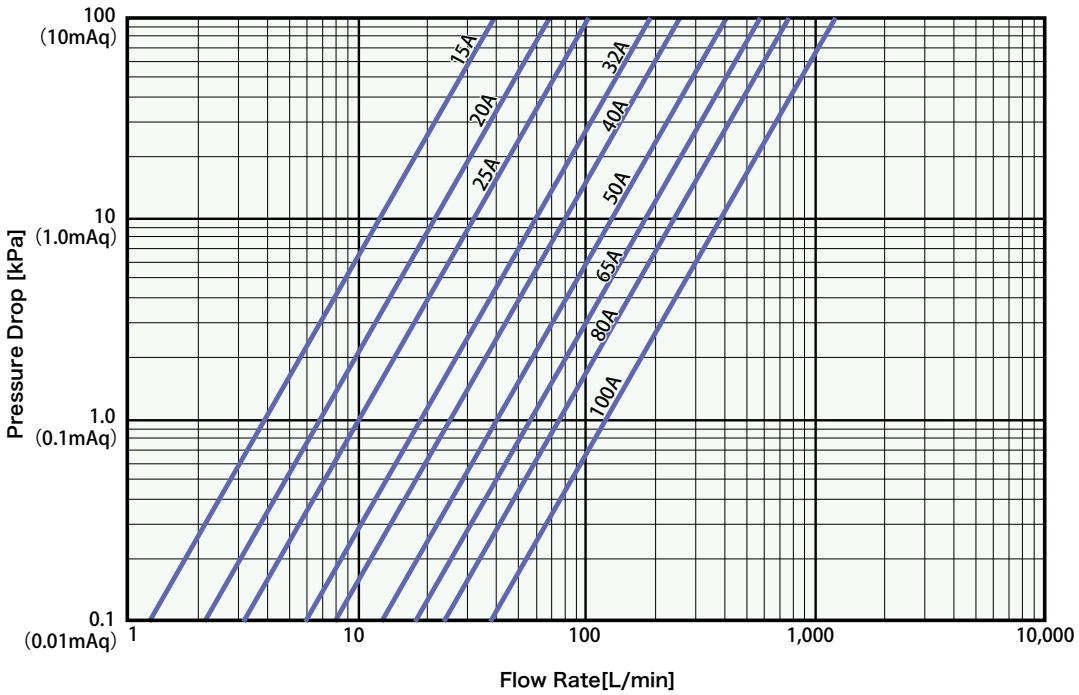
CHECK VALVE LIFT TYPE

Size[A]	15	20	25	32	40	50
Cv Value	5.6	8.3	13.8	20.2	31.7	56.5



STRAINER

Size[A]	15	20	25	32	40	50	65	80	100
Cv Value	2.8	4.9	7.2	13.2	17.9	28.7	39.8	52.6	84.6



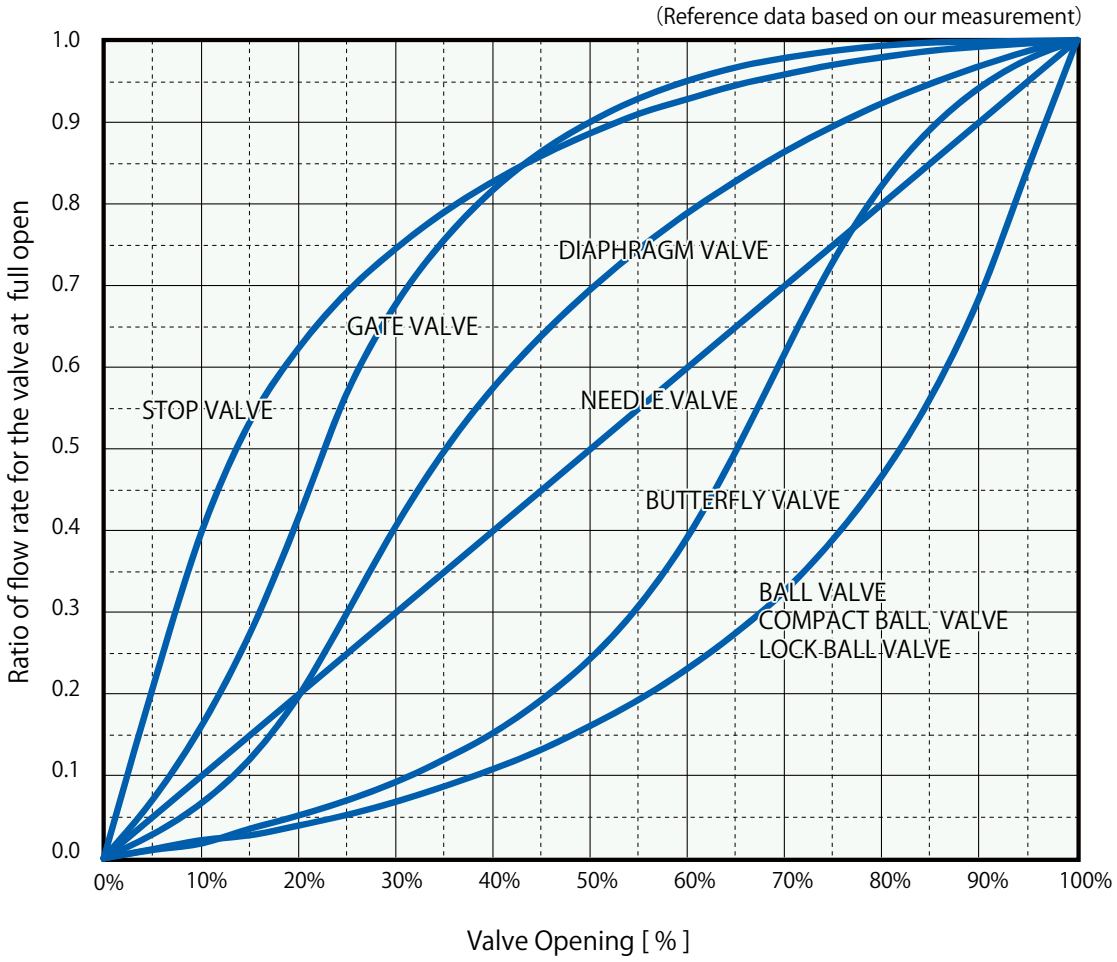
3. Relationship between Valve opening and Flow rate

The relationship between valve opening and flow rate is shown in the figure below.
The flow characteristics depend on the valve structure.
NEEDLE VALVE is suitable for flow control because the flow rate increases linearly with valve opening.
However, the pressure loss of the NEEDLE VALVE is very large at large flow rates.
In this case, select DIAPHRAGM VALVE close to the linear characteristic.

The flow characteristics of STOP VALVE or GATE VALVE vary greatly in a small opening range.
The flow characteristics of BALL VALVE or BUTTERFLY VALVE change greatly in a large opening range.
These valves are suitable for opening and closing valves.

Please select a valve suitable for your purpose.

Relationship between Valve opening and Flow rate



CAUTION IN USE OF ESLON VALVES

Pay special attention on items with this mark, because it may cause personal accident if the caution is in question in neglected.

1 Storage and Transportation

1. Handle products carefully, avoid dropping and throwing products. Products might be affected in performance or damaged by strong impact.
2. As large size of product is heavy, unload and handle by 2-persons if necessary.
3. For storage, store products in their cartons or wrapping and stack up orderly not to unpile.
4. Avoid exposing products to direct sunlight. Avoid storing and handling products in the condition of excessive temperature or humidity.

2 Operating Instructions

1. Check inspection certificate packed with the products and observe the precaution.
2. When installing products, avoid bending, tension, or other external load on products.
   Avoid stepping or apply excessive weight on products. It might cause failure, leaking, or damage of products.
3. Do not install and use products under out of condition of temperature or humidity.
4. Keep ventilating when products are installed in corrosive atmosphere.
5. In case that fluid might freeze up due to operating condition, prevent freezing by thermal insulation or other methods.
6. In case of leaking from union nut, retighten evenly both sides of union nuts.
7. Inspect and exchange periodically valves in use for slurry medium.
8. Prevent using for crystalline fluid.
9. Check periodically bolt torque for flange connection and keep them specified torque. Bolt looseness might cause leaking.
10. Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
11. Do not insert your hands into the valve in operating test to prevent serious injury accident.
12. Do not use Eslon valves, Pipes, and Fittings for compressed air or gas applications.
13. Do not disassemble valves while applying inner pressure to valves to avoid accident such as burst of valves or scatter fluid.
14. Use Eslon gasket (packing) as sealing for flange connection.
15. Tighten evenly bolts, using washers and spring washers for both of bolts and nuts for prevention of damage of flanges.
16. Set valve and gaskets between flanges, then tighten bolts after adjusting the position and dimensions not to make a gap between them.
17. Use flat faced flanges for Eslon valves and gaskets, do not use raised faced flange.
18. Tighten bolts diagonally, evenly, and gradually as shown below.
19. For tighten torque of bolts, refer to the dimension table of Eslon Packing (Gasket) .
20. Use specified size and length of bolts shown in table.

3 Installation

1. Keep ventilating when products are installed in corrosive atmosphere.
2. When installing products, avoid bending, tension, or other external load on products. Avoid stepping or apply excessive weight on products. It might cause failure, leaking, or damage of products.
3. Do not install automatic valve so as to set the actuator downward, it should be installed upward or sideways.
4. Align the axes of pipe and valve. Tighten bolts diagonally and evenly.
5. Support valve by proper method not to load excess stress.
6. Do not over-fasten the union nut of ball valve. Over-fastening union nut than the state at shipment may cause the inability of actuator operation due to over-torque.
7. Do not install and use products under out of condition of temperature or humidity.
8. In case that fluid might freeze up due to operating condition, prevent freezing by thermal insulation or other methods.
9. In case of leaking from union nut, retighten evenly both sides of union nuts.
10. Inspect and exchange periodically valves in use for slurry medium.
11. Prevent using for crystalline fluid.
12. Check periodically bolt torque for flange connection and keep them specified torque. Bolt looseness

might cause leaking.

⓭ Do not insert your hands into the valve in operating test to prevent serious injury accident.

⓮ Do not use Eslon valves, Pipes, & Fittings for compressed air or gas applications

⓯ Do not take the valve apart under pressure to prevent destruction and damage for the valve, scatter of solution in the valve.

4 Instructions

Pneumatic valve

❶ Operation-air should be dry-air.

❷ In case air pressure for actuator operation is high, reduce into the specified pressure for the actuators.

❸ For flow test or operation test after installation, apply air pressure of less than 0.5MPa for double action valve and 0.6MPa for single action valve.

❹ For the tube to supply compression air for actuator operation, use the tube with more than 6mm diameter. Using other diameter of tube may influence open-close speed.

❺ In manual operation of pneumatic actuator, do not turn shaft-top of the actuator by wrench because spring back is dangerous.
Use manual operation unit if the manual operation is necessary.

❻ Do not use pneumatic actuator under the condition of rainwater, splash, or fine particles. Install the cover to avoid rainwater or direct sunlight when use outside.

❼ Prevent entering water into pneumatic actuator from air intake hole to avoid the inability of actuator operation.

Electric Valve

❶ Electric valve is not explosion-proof. Do not install electric valve in flammable atmosphere.

❷ Electric actuator is not waterproof. For outdoor use, install waterproof measure such as cover or roof. Install electric valve so as to set cable gland downward and putty to avoid water seeping.

❸ Apply allowable voltage and the power source specified by indication on actuator.

❹ Connect electric wire according to connecting diagram.

❺ Install the grounding wire.

❻ Usable only single phase AC for AC source. For positioner, install necessary devices for the proportional control of flow rate, such as balancing relay-unit, detect-sensor, and controller.

❼ Do not splash water to the actuator.

❽ Unable to change opening/closing speed of electric valve.

5 Maintenance

❶ In case of des-assembling or re-assembling of valve for the maintenance, refer instruction or manual.

❷ Execute maintenance and inspection of valve in every 3-6 months.

❸ Refer instruction or manual of each valve type for installation, how to use, and others.

Pneumatic valve

❹ Prohibit des-assembling of pneumatic actuator after installation of valve to avoid danger and trouble in operation.

❺ No lubricating required.

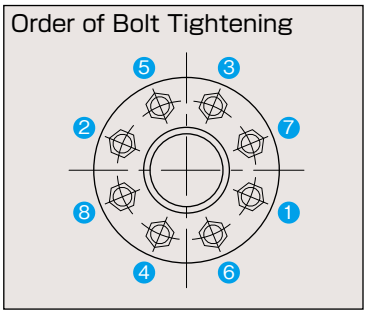
Electric Valve

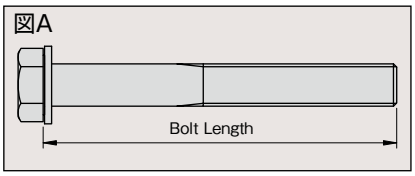
❻ Prohibit des-assembling of electric pneumatic actuator.

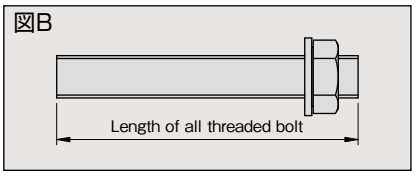
❼ Even in case thermal protector worked, the valve will return to workable condition in a few minutes. Check cause of overheating and execute preventive measures.

6 Installation Procedure for Flange connection

1. Use Eslon gasket (packing) as sealing for flange connection.
2. Tighten evenly bolts, using washers for both of bolts and nuts for prevention of damage of flanges.
3. Set valve and gaskets between flanges, then tighten bolts after adjusting the position and dimensions not to make a gap between them.
4. Use flat faced flanges for Eslon valves and gaskets, do not use raised faced flange.
5. Tighten bolts diagonally, evenly, and gradually as shown below.
6. Recommended torque for bolts is specified in table. 1(for Eslon EPDM gaskets).
7. Use specified size and length of bolts shown in table.2.







■Table-1 Torque Standards for Bolt Tightening

Unit:N・m {kgf-cm}

Size(A)	15~20	25~50	65~100	125~200	250~350	400
Torque	15	30	45	55	65	70

■Table-2 The bolt for the flange connection

Unit:mm

	Nominal diameter (A)	15	20	25	32	40	50	65	75	80	100	125	150	200	250	300	350	400	450	500	600
BALL·STOP·STRAINER CHECK·TS Flange(10K)	Bolt Diameter	M12	M12	M16	M16	M16	M16	M16	–	M16	M16	M20	M20	M20	M22	M22	–	–	–	–	–
	Bolt Length	50	50	55	60	60	70	75	–	75	75	80	85	90	95	100	–	–	–	–	–
	TS Loose Flange	–	–	–	–	–	75	80	–	80	85	85	95	100	–	–	–	–	–	–	–
TS Flange(5K)	Bolt Diameter	M10	M10	M10	M12	M12	M12	M12	–	M16	M16	M16	M16	M20	M20	–	–	–	–	–	–
	Bolt Length	45	45	45	50	50	55	55	–	55	60	60	65	90	95	–	–	–	–	–	–
TS Flange (For Water Supply)	Bolt Diameter	–	–	–	–	–	–	–	M16	–	M16	M16	M16	M16	M20	M20	–	–	–	–	–
	Bolt Length	–	–	–	–	–	–	–	75	–	80	80	85	90	95	100	–	–	–	–	–
DIAPHRAGM(10K)	Bolt Diameter	M12	M12	M16	M16	M16	M16	M16	–	M16	M16	M20	M20	M20	M22	–	–	–	–	–	–
	Bolt Length	45	45	50	55	55	65	70	–	70	80	80	85	90	95	–	–	–	–	–	–
	TS Loose Flange	–	–	–	–	–	70	75	–	75	90	85	95	100	–	–	–	–	–	–	–
GATE VALVE FOR PIPELINE(10K)	Bolt Diameter	–	–	–	–	–	M16	M16	–	M16	M16	M20	M20	M20	–	–	–	–	–	–	–
	Bolt Length	–	–	–	–	–	70	70	–	70	75	80	85	90	–	–	–	–	–	–	–
	TS Loose Flange	–	–	–	–	–	75	75	–	75	85	85	95	100	–	–	–	–	–	–	–
BUTTERFLY VALVE	Bolt Diameter	–	–	–	–	M16	M16	M16	–	M16	M16	M20	M20	M20	M22	M22	M22	M24	M24	M24	M30
	Bolt Length	–	–	–	–	90	110	120	–	120	130	140	140	160	180	210	250	265	280	295	330
	TS Loose Flange	–	–	–	–	–	115	125	–	125	140	145	150	170	–	–	–	–	–	–	–
	Length of all threaded bolt	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	120	120	140

※For length of all threaded bolt for Butterfly valves 350 - 600A, please refer to Fig.B.

7 Installation Procedure by Solvent Cement

Disassemble union nut and socket ends from valve body, then connect by solvent cement. Cementing without disassembling socket ends might cause failure of valve function by flowing solvent cement in valve.

Make marks on union nuts and body in accordance with fully-tighten position before loosen union nuts, and becomes easy to reassemble.

1. Cut pipe in a right angle to the pipe axis.
2. Remove all burrs and saw dust by knife then round off edge by 1-2 degree.
3. Mark the insert length of pipe and depth of socket to ensure 0 (zero) point and complete inserting.
4. Wipe cementing surfaces of pipe and fitting by dry and clean cloth to remove all dirt, dust, moisture and oil.
5. Use specified grade of Eslon solvent cement.
6. Apply solvent cement evenly buts lightly more on pipe and less on fitting to avoid overflowing of solvent cement to inside.
7. Avoid flowing of solvent cement into valve if in case of installing without disassembling socket ends. Need more attention especially for vertical piping lines.
8. After applying solvent cement, insert pipe quickly into socket end and wipe away overflowing cement.
9. Hold pipe and socket for 1 - 2 minutes after insertion. Avoid any impact and bending until dry. Ventilate inside of valve and piping to release solvent vapors in order to prevent solvent crack. Blow inside of piping if necessary.

⑩ Because of slow evaporation of solvent, installation at less than 5 degree C is not recommended.

⑪ Solvent cement is flammable hazardous material including organic solvents. To avoid explosion and any serious incidents, prohibit use of fire such as smoking, torching, or fire-working around work and storage area. Ventilate sufficiently, do not inhale solvent vapors.

■Holding time after installation

Season	Size	
	Up to 50A	65~150A
Summer	More than 30 seconds	More than 1 minute
Winter		More than 2 minutes

8 Installation Procedure for Thread connection

❶ Disassemble union nut and thread ends from valve body, then connect to pipe. Make marks on union nuts and body in accordance with fully-tighten position before loosen union nuts, and becomes easy to reassemble.

❷ Do not screw with metal thread to prevent damage. Use plastic thread of fittings such as PVC valve sockets.

❸ Prevent over-tightening to avoid damage of thread.

❹ Use sealing tape for thread connection (wrap 2 - 3 ply). Do not use required sealing, hemp, or paint. It can cause stress cracking.

❺ Tighten by single hand then use water-pump pliers or belt wrench by turning 180 - 360°

❻ In case of tightening by belt wrench, turn carefully not to damage thread.

9 Installation Procedure by Socket welding

❶ For socket welding work, wide space to set welding machine is needed. Keep enough work space for safety and work by 2-persons.

❷ Prevent receiving wind during installation as temperature of heater face is affected and it cause failure in welding.

❸ Ensure the type of welding machine corresponding to the size and material of pipe.

❹ Ensure ground connection before turning on the power of welding machine.

❺ Be careful of an electric shock by electric all leakage.

❻ Be careful not to burn yourself by touch to heater face heated at 260 - 270 degree C.

❼ Follow the instruction and specified welding condition such as heater face temperature, fusion time, and length of insertion as directed.

❽ Insert pipe smoothly into socket with 5 seconds after pipe is pulled out from heater face.
For details, refer to the instruction manual for welding machine.

10 Leak test on installed piping

❶ Prohibit using compressed air or gas in leak test for thermoplastic piping systems. Conduct leak test under hydrostatic pressure. Apply hydrostatic pressure after releasing air in piping.

❷ Prohibit using leak detector including surface-activating agent. That can cause damage or crack on valves, pipes, and fittings.

11 Expansion and Contraction

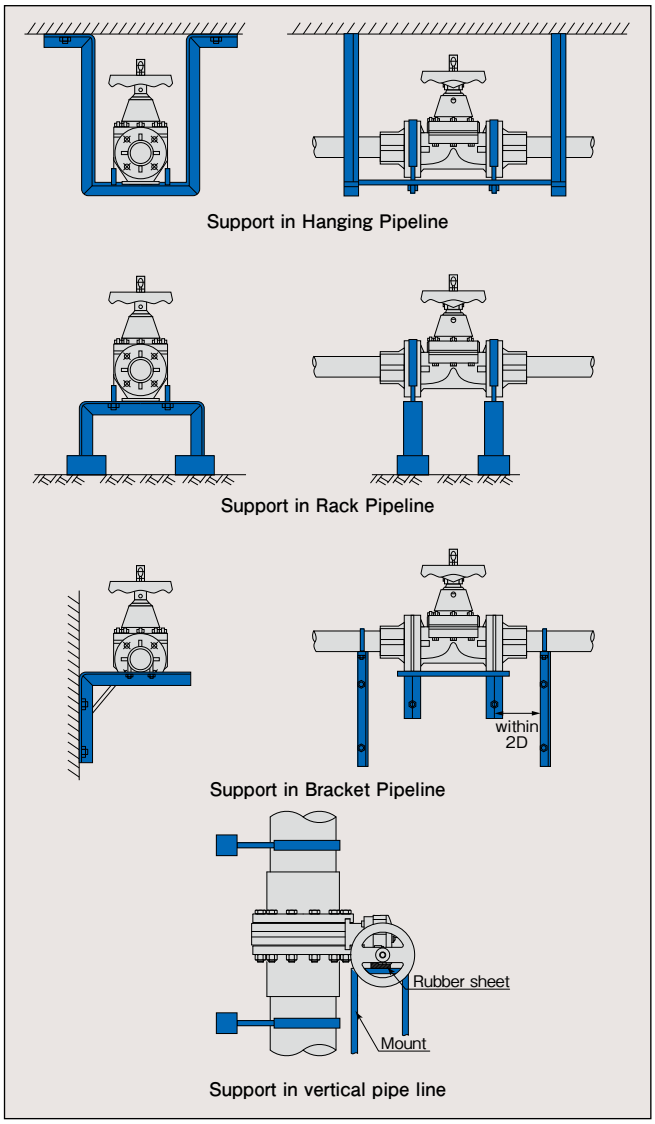
Linear expansion coefficient of plastic and temperature variation by fluid or change in atmosphere temperature cause thermal expansion & contraction, and tensile or compress stress on piping. Especially in case of installation of Eslon valve with metal piping, inlet and outlet around valves needs to be fixed not to be affected on valve as mechanical properties and loaded stress between plastic valve and metal piping absolutely differ.

12 Supporting

Support valve by proper method not to load excess stress.

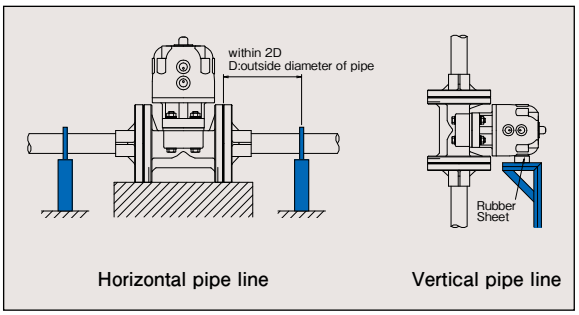
1. Support valve body, not at connection ends by union or other parts.
2. In case of installation of Eslon valve with metal piping, support metal piping not to load on valve with concerning support position and method.
3. For flange type of valve, support by fixing valve flange with metal band and bolts. For union type of diaphragm valve, support by fixing with insert nuts at the bottom of valve body.
4. Support pipes of both sides of valve at the position within 2D (D : nominal size) distance from valve, separately from support of valve itself.
5. In case that pipe line or valve is vibrating, fix absolutely both of valve and piping.

■Standard Supporting Method(Manual Valve)

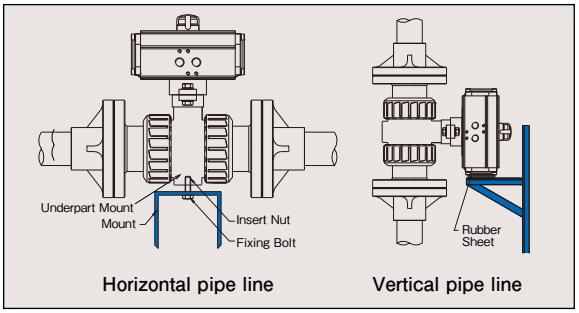


■Standard Supporting Method(Automatic Valve)

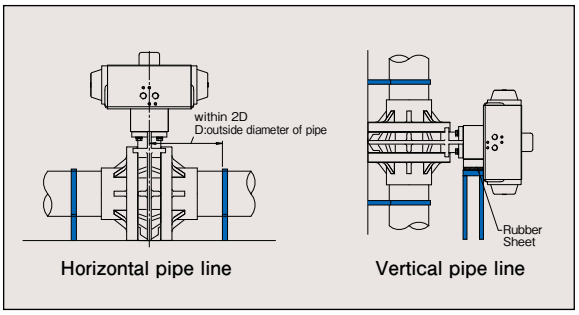
●Diaphragm Valve



●Ball Valve



●Butterfly Valve



13 Thermal Insulation

Fluid might freeze up in valve when temperature is under freezing point of fluid and stop flowing. Install thermal insulation material such as glass wool or foamed urethane onto piping in those cases. Refer to insulation handbook to consult for proper thickness of insulation.

PVDF valves correspond to the export restriction products according to the regulations of the Export Trade Control Order. The export certificate is needed when exporting.

SEKISUI CHEMICAL CO.,LTD.

Industrial Piping System Division
2-10-4 Toranomon Minatoku,Tokyo,105-8566 Japan
TEL +81-3-6748-6489 FAX +81-3-6748-6553
https://eslon-plant.jp/web-en/ E-mail: eslon_plant@sekisui.com

SEKISUI INDUSTRIAL PIPING CO., LTD.
No. 156, Section 1, Zhongshan Road, Banqiao District, New Taipei City, 22065 Taiwan, R.O.C.
TEL +886-2-2964-1478 FAX +886-2-2964-1959

SEKISUI (SHANGHAI) INTERNATIONAL TRADING CO., LTD.
Room 706, Metro Tower, No.30, Tianyaoqiao Road Shanghai. 200030, China
TEL +86-21-6482-0638 FAX +86-21-6482-0639

SEKISUI SINGAPORE PTE, LTD.
7500A Beach Road #12-304/307 The Plaza 199591, Singapore
TEL +65-629-637-88 FAX +65-629-677-23

SEKISUI CHEMICAL G.m.b.H.
Koenigsallee 106, 40215 Dusseldorf, Germany
TEL +49-211-36977-0 FAX +49-211-36977-31

SEKISUI VIETNAM CO., LTD.
Room1414, CornerStone Building, 16Phan Chu Trinh St, Hoan Kiem District, Hanoi, Vietnam
TEL +84-4-3939-2677 FAX +84-4-3939-2678

Printed March. 2020

ESLON VALVES
CATALOGUE

SEKISUI CHEMICAL CO.,LTD.
Industrial Piping System Division

No. 06269
2020. 3. 3TH TX