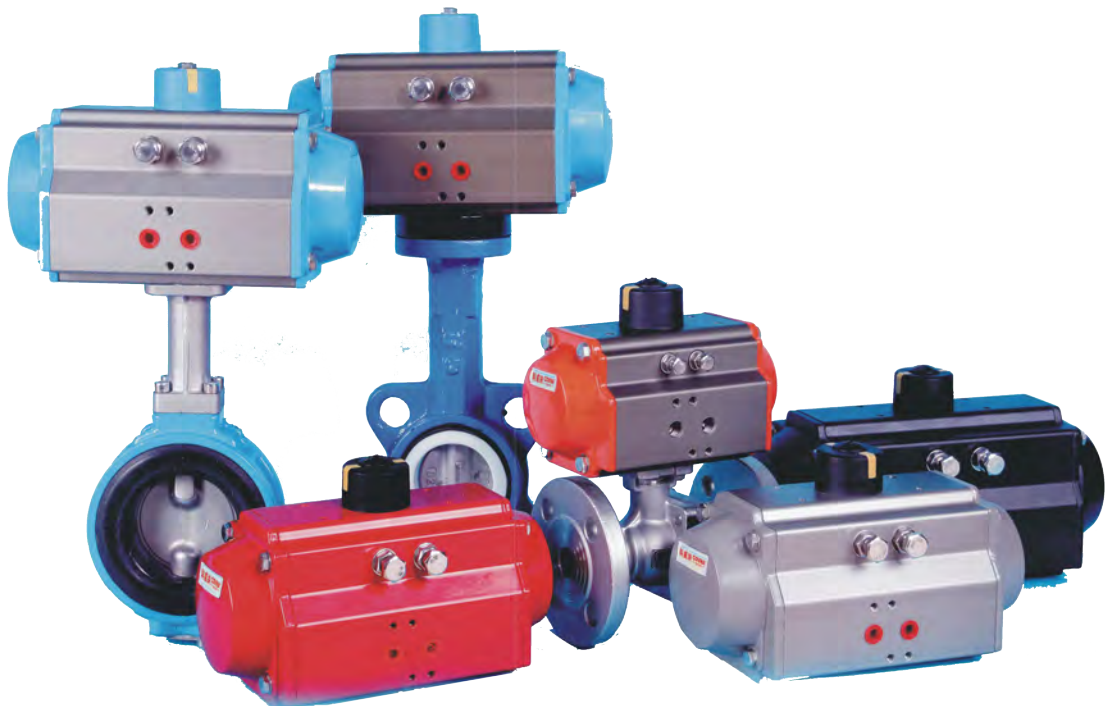


OPERATING MANUAL



Introduction

The 3 piece design allows for the center part of the valve containing the ball, stem & seats to be easily removed from the pipeline. This facilitates efficient cleaning of deposited sediments, replacement of seats and gland packings, polishing out of small scratches on the ball, all this without removing the pipes from the valve body. The design concept of a three piece valve is for it to be repairable.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN08-DN100	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Female Threaded	Stem Material	Stainless Steel
Operating Pressure	1.0, 2.5, 4.0, 6.4, 31.5MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Straight Through Flow Path		

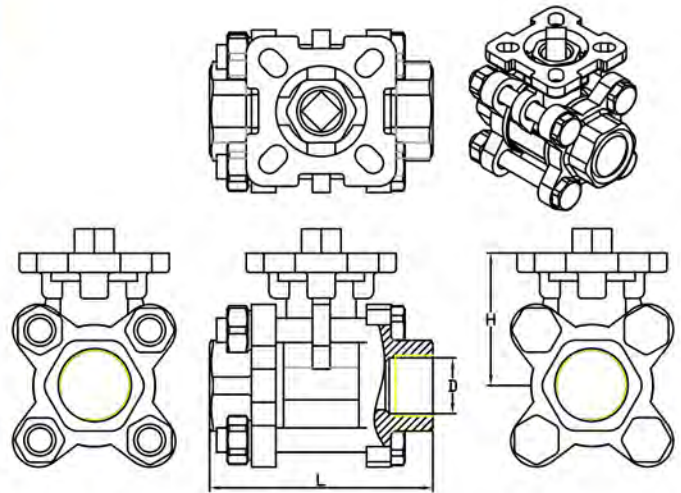
Product Weight

N.W.(kg)	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	1.38	1.38	2.18	2.18	2.78	3.18	4.58	5.88
Valve Body	0.7	0.7	0.6	0.7	1.0	1.4	1.9	2.6	5.5	10	12

Qutine Size drawing

UNIT: mm

Size	G	D	L	H
DN08	1/4"	11.2	60	42
DN10	3/8"	12.5	60	42
DN15	1/2"	15	72	42
DN20	3/4"	20	82	48.5
DN25	1"	25	90	58.5
DN32	1-1/4"	32	112	63
DN40	1-1/2"	40	120	71
DN50	2"	50	145	78
DN65	2-1/2"	65	185	100
DN80	3"	80	210	109
DN100	4"	100	268	140



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

Three-way ball valves come with a T- or L- shaped fluid passageways inside the rotor. The T valve might be used to permit connection of one inlet to either or both outlets or connection of the two outlets. The L valve could be used to permit disconnection of both or connection of either but not both of two inlets to one outlet.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN08-DN100	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Female Threaded	Stem Material	Stainless Steel
Operating Pressure	1.0, 2.5, 4.0, 6.4, 31.5MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	3 way L-port/T-port		

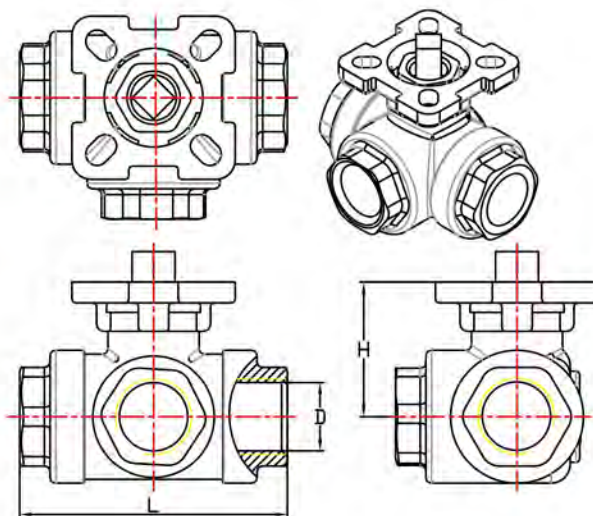
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	2.18	2.78	3.18	5.88	9.08	9.08
Valve Body	0.6	0.7	1.0	3.0	3.2	4.0	10.0		

Outline Size drawing

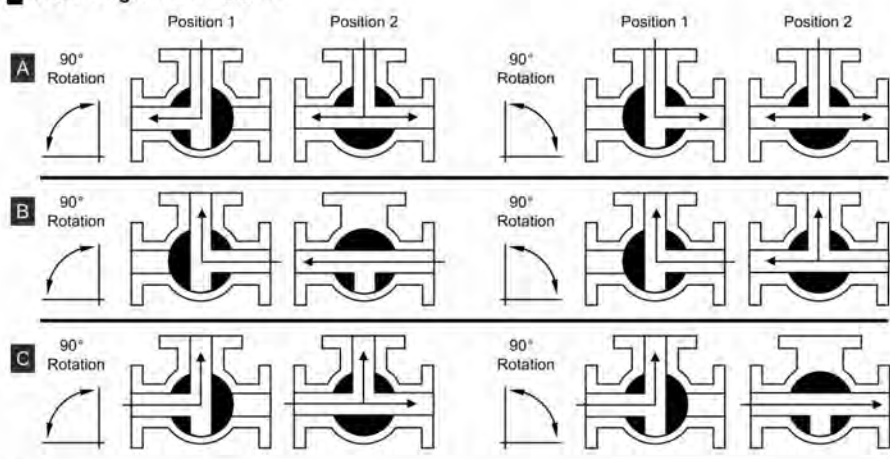
UNIT: mm

MEDLE	G	D	L	H
DN15	1/2"	15	72	37
DN20	3/4"	20	85	39
DN25	1"	25	90	48
DN32	1-1/4"	32	117	57
DN40	1-1/2"	40	136	68
DN50	2"	50	151	78
DN65	2-1/2"	65		
DN80	3"	80		
DN100	4"	100		

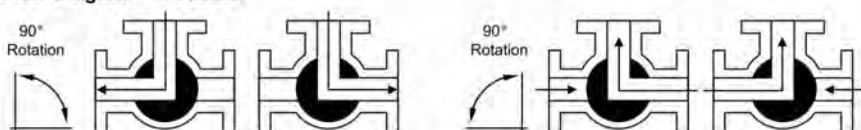


Three Way Ball Valve Flow Diagram

Flow Diagram – T Pattern



Flow Diagram – L Pattern



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.

Introduction

The 3 piece design allows for the center part of the valve containing the ball, stem & seats to be easily removed from the pipeline. This facilitates efficient cleaning of deposited sediments, replacement of seats and gland packings, polishing out of small scratches on the ball, all this without removing the pipes from the valve body. The design concept of a three piece valve is for it to be repairable.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN08-DN100	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Welding	Stem Material	Stainless Steel
Operating Pressure	1.0, 2.5, 4.0, 6.4, 31.5MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Straight Through Flow Path		

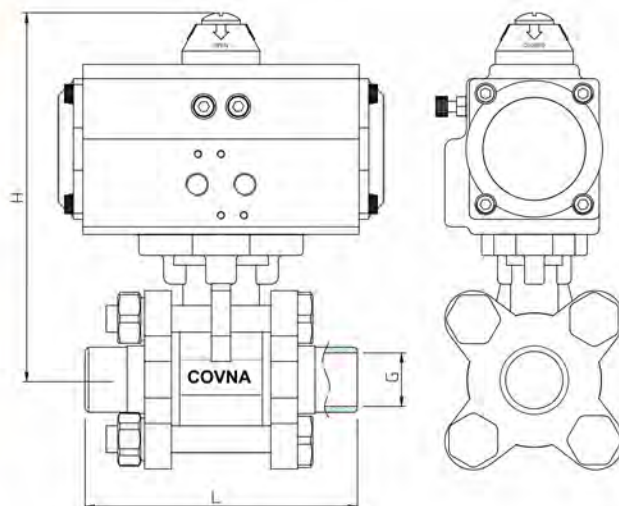
Product Weight

N.W.(kg)	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	1.38	1.38	2.18	2.18	2.78	3.18	4.58	5.88
Valve Body	0.7	0.7	0.6	0.7	1.0	1.4	1.9	2.6	5.5	10	12

Qutine Size drawing

UNIT: mm

MEDLE	G	L	H
DN15	1/2"	70	159/175
DN20	3/4"	85	167/186
DN25	1"	95	172/215
DN32	1-1/4"	110	210/230
DN40	1-1/2"	201/209	218/248
DN50	2"	209/242	248/283
DN65	2-1/2"	242/275	273/320
DN80	3"	275/332	313/335



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

Quick open and close, less flowing resistance.
 PTFE sealing, perfect sealing, high temperature, corrosion resistance, acid and alkali resistance.
 The main features of the valve itself is compact, easy operation and maintenance for water, acids and natural gas general working media.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN200	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Flange	Stem Material	Stainless Steel
Operating Pressure	1.6MPa-6.3MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Straight Through Flow Path		

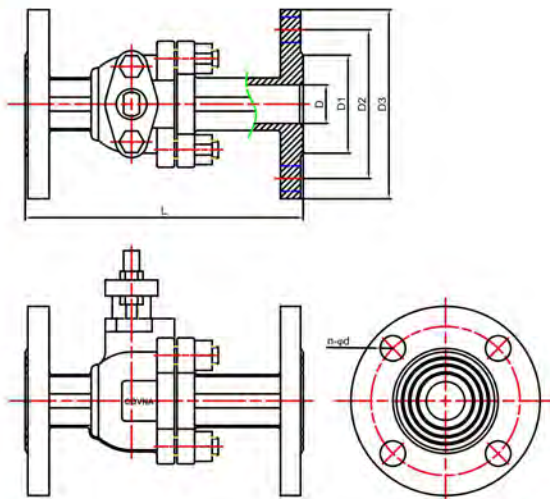
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Actuator	1.38	1.38	1.38	2.18	2.78	3.18	4.58	5.58	9.08	12.68	19.98	
Valve Body	2.3	2.6	3.0	4.3	5.6	7.0	11	12.5	17.18	25	35	

Qutine Size drawing

UNIT: mm

MEDLE	D	D1	D2	D3	L	n-φ d
DN15	15	45	65	95	130	4-φ 14
DN20	20	55	75	105	140	4-φ 14
DN25	25	65	85	115	150	4-φ 14
DN32	32	78	100	135	165	4-φ 18
DN40	40	85	110	145	180	4-φ 18
DN50	50	100	125	160	200	4-φ 18
DN65	65	120	145	180	200	4-φ 18
DN80	80	135	160	195	250	8-φ 18
DN100	100	155	180	215	280	8-φ 18
DN125	125	185	210	245	320	8-φ 18
DN150	150	210	240	280	360	8-φ 23
DN200	200	265	295	335	400	12-φ 23



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
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Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN200	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Flange	Stem Material	Stainless Steel
Operating Pressure	1.6MPa~6.3MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	3 way L-port/T-port		

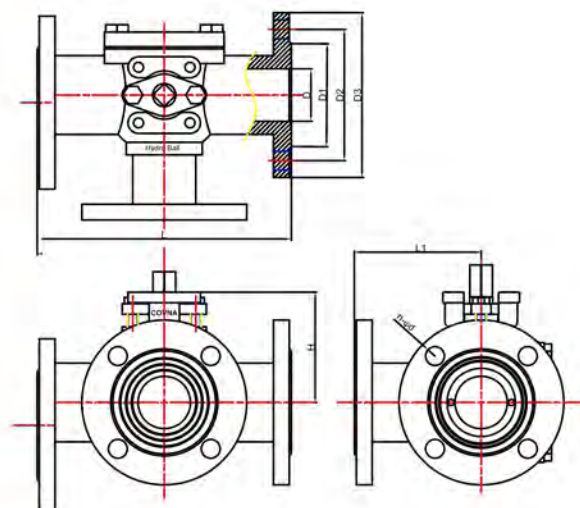
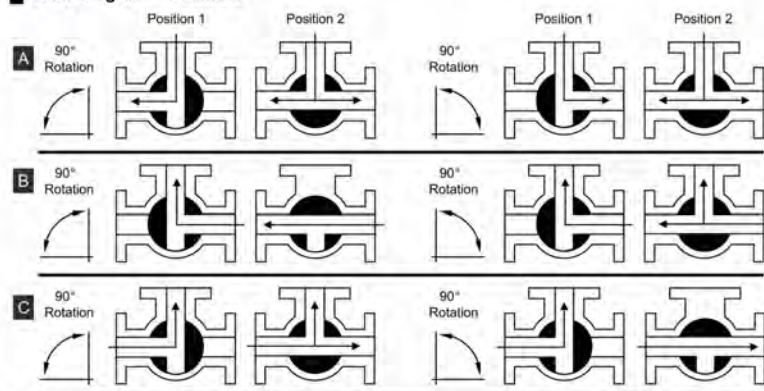
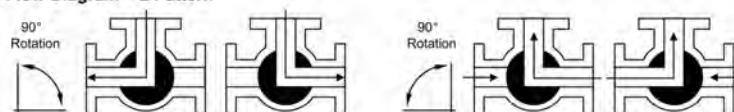
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	2.18	2.78	3.18	4.58	4.58	5.88
Valve Body	0.7	0.8	0.85	1.2	1.9	2.7	4.2	6.8	8.9

Outline Size drawing

UNIT: mm

MEDLE	D	D1	D2	D3	L1	L	H	n-φ d
DN15	15	45	65	95	72	150	53	4-φ 14
DN20	20	55	75	105	80	164	58.5	4-φ 14
DN25	25	65	85	115	90	180	70	4-φ 14
DN32	32	78	100	140	100	200	77.5	4-φ 18
DN40	40	85	110	150	110	220	88.5	4-φ 18
DN50	50	100	125	165	120	240	92	4-φ 18
DN65	65	120	145	185	130	260	107	4-φ 18
DN80	80	135	160	200	140	280	119	8-φ 18
DN100	100	155	180	220	160	320	150	8-φ 18
DN125	125	185	210	250	190	380	200	8-φ 18
DN150	150	210	240	285	220	440	240	8-φ 23
DN200	200	265	295	340	260	550	300	8-φ 23


Three Way Ball Valve Flow Diagram
Flow Diagram – T Pattern

Flow Diagram – L Pattern

Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.

Introduction

Ultra Low Torque, Elegant, Durable, Corrosion Resistance

Full Flow, PTFE Ball sealing, Low Torque

Can Use the Handle Regulating Valve Seat Tightness

Released By The Central Section Is Still Intact, Valves, Replaceable

To Provide Supplementary Platform Embedded Copper Nut Products

Convenient Automatic Actuator



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN400	Seating Material	PTFE: -10℃~180℃ (White)
Body material	Plastic UPVC/CPVC	Core Material	Plastic UPVC/CPVC
End Connection	Double union	Stem Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Applicable media	Compatible PVC Food Industry Chemical Solvents
Structure	Straight Through Flow Path		

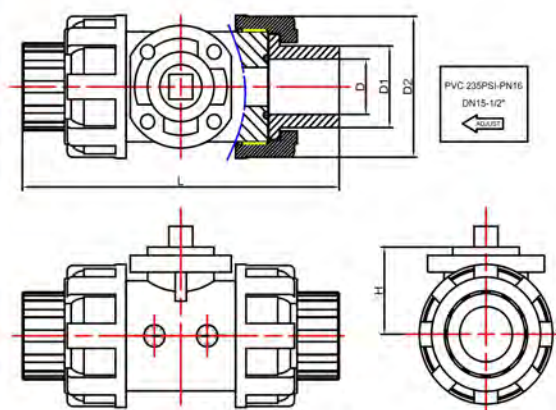
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	1.38	2.18	2.18	2.78	4.58	5.88
Valve Body	0.3	0.4	0.55	0.78	1.5	2.0	3.0	4.8	8.0

Qutine Size drawing

Unit: mm

DM	INCH	DIN	ANSI	JIS		UK		H	L
		Outer	Inner	Spec	Outer	Spec	Outer		
DN15	1/2"	Ø20	Ø21.3	16	22	16	22	32	120
DN20	3/4"	Ø25	Ø26.7	20	26	20	26	40	135
DN25	1"	Ø32	Ø33.4	25	32	27	34	45	150
DN32	1-1/4"	Ø40	Ø42.2	30	38	35	42	54	167
DN40	1-1/2"	Ø50	Ø48.3	40	48	41	48	63	178
DN50	2"	Ø63	Ø60.3	50	60	52	60	73.5	204
DN65	2-1/2"	Ø75	Ø73	65	76	65	76		
DN80	3"	Ø90	Ø88.9	75	89	80	89		
DN100	4"	Ø110	Ø114	100	114	100	114		
DN125	5"	Ø140	Ø141	125	140	125	140		
DN150	6"	Ø160	Ø168	150	165	150	165		
DN200	8"	Ø225	Ø219	200	216	200	216		



Installation Instruction

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Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN50	Seating Material	PTFE: -10℃~180℃ (White)
Body material	Plastic UPVC/CPVC	Core Material	Plastic UPVC/CPVC
End Connection	Double union	Stem Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Applicable media	Compatible PVC Food Industry Chemical Solvents
Structure	3 way L-port/T-port		

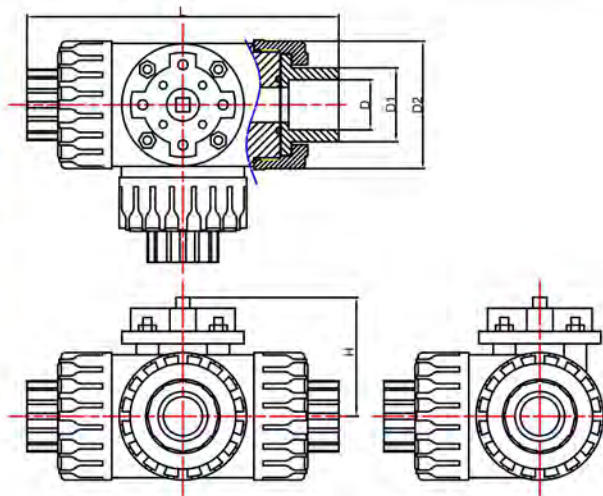
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50
Actuator	1.38	1.38	2.18	2.18	2.78	3.18
Valve Body	1.1	1.2	1.8	2.0	3.1	3.5

Qutine Size drawing

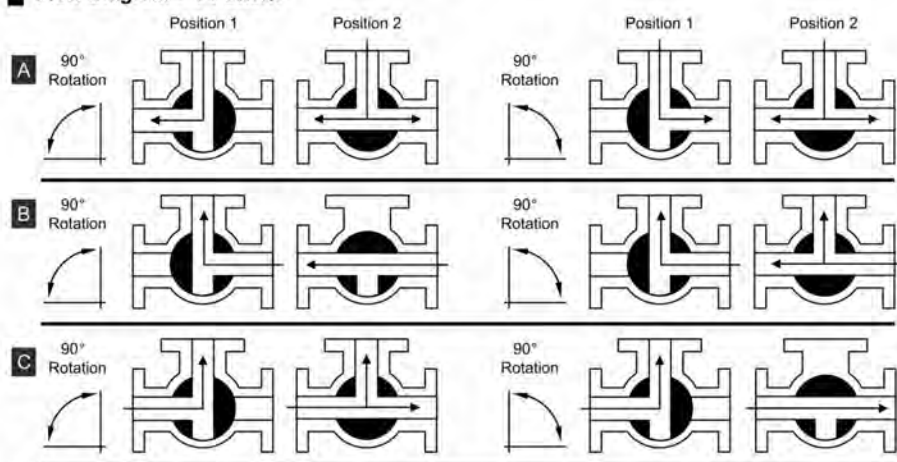
UNIT: mm

DM	INCH	DIN	ANSI	JIS		UK		H	L
		Outer	Inner	Spec	Outer	Spec	Outer		
DN15	1/2"	Ø20	Ø21.3	16	22	16	22	79	163
DN20	3/4"	Ø25	Ø26.7	20	26	20	26	79	172
DN25	1"	Ø32	Ø33.4	25	32	27	34	82	200
DN32	1-1/4"	Ø40	Ø42.2	30	38	35	42	82	208
DN40	1-1/2"	Ø50	Ø48.3	40	48	41	48	110	240
DN50	2"	Ø63	Ø60.3	50	60	52	60	110	246

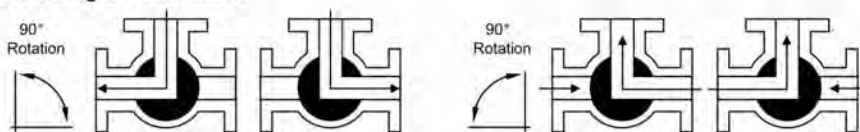


Three Way Ball Valve Flow Diagram

Flow Diagram – T Pattern



Flow Diagram – L Pattern



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.

Introduction

Sanitary pneumatic 2 way ball valves has been through the sophisticated inspection process and strict quality management. Using internal and external polishing and sterilization. Clamp quick connection, all-inclusive seal, easy to disassemble, cleaning and maintenance. They can be manually operated or automated with an electric or pneumatic actuator.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN100	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Clamp, Welding	Stem Material	Stainless Steel
Operating Pressure	1.6MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Straight Through Flow Path		

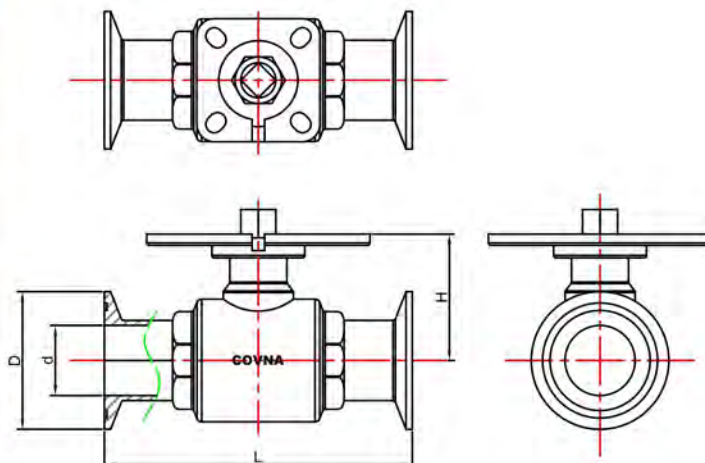
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	1.38	2.18	2.78	3.18	4.58	4.58	5.88
Valve Body	0.7	0.8	0.85	1.2	1.9	2.7	4.2	6.8	8.9

Qutine Size drawing

UNIT: mm

MODLE	D	d	H	L
DN15	50.5	16	45	102
DN20	50.5	21	48	117
DN25	50.5	29	48	125
DN32	50.5	35	48	140
DN40	64	47	58	180
DN50	77.5	59	58	200
DN65	91	72	65	220
DN80	106	80	65	235
DN100	119	97	74	275



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

Sanitary pneumatic 3 way ball valves has been through the sophisticated inspection process and strict quality management. Using internal and external polishing and sterilization. Clamp quick connection, all-inclusive seal, easy to disassemble, cleaning and maintenance. Three-way sanitary ball valve for sanitary pipelines medium commutation, diversion, confluence, mixed flow. They can be manually operated or automated with an electric or pneumatic actuator.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN15~DN100	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Clamp, Welding	Stem Material	Stainless Steel
Operating Pressure	1.6MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	3 way L-port/T-port		

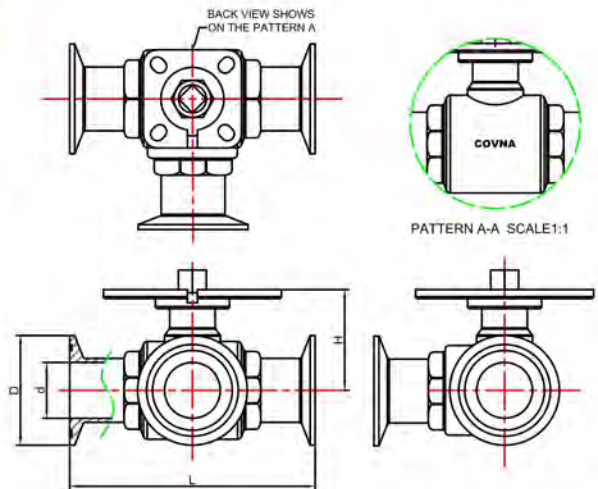
Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	1.38	1.38	2.18	2.18	2.78	3.18	5.88	6.50	9.08
Valve Body	0.85	1.0	1.3	1.7	2.8	4.5	7.0	9.0	9.5

Qutine Size drawing

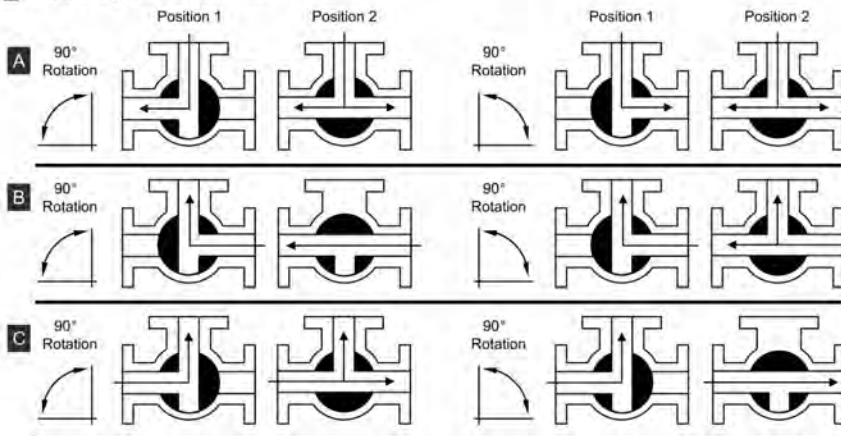
UNIT: mm

MODLE	D	d	H	L
DN15	50.5	16	45	105
DN20	50.5	21	48	120
DN25	50.5	29	48	130
DN32	50.5	35	48	140
DN40	64	47	58	164
DN50	77.5	59	58	195
DN65	91	72	65	218
DN80	106	80	65	230
DN100	119	97	74	260

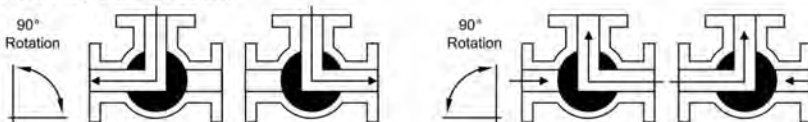


Three Way Ball Valve Flow Diagram

Flow Diagram – T Pattern



Flow Diagram – L Pattern



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.

Introduction

Sanitary pneumatic butterfly valves has been through the sophisticated inspection process and strict quality management. Using internal and external polishing and sterilization. Clamp quick connection, all-inclusive seal, easy to disassemble, cleaning and maintenance. They can be manually operated or automated with an electric or pneumatic actuator.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	Ø19~Ø102	Seating Material	PTFE: -10℃~180℃ (White) PPL: -10℃~250℃ (Black)
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Clamp, Welding	Stem Material	Stainless Steel
Operating Pressure	1.6MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Midline Structure / A-type		

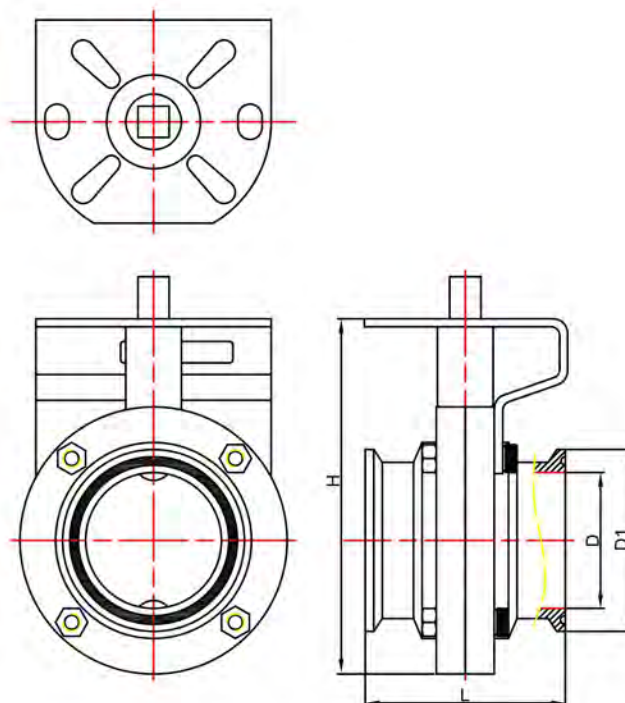
Product Weight

N.W.(kg)	Ø19	Ø25	Ø32	Ø38	Ø45	Ø51	Ø57	Ø63	Ø76	Ø89	Ø102
Actuator Model	AT52	AT52	AT52	AT63	AT63	AT75	AT75	AT75	AT83	AT92	AT115
Actuator	1.38	1.38	1.38	2.18	2.18	2.78	2.78	2.78	3.18	4.58	6.5
Valve Body	1.4	1.3	1.2	1.1	1.5	1.5	2.1	2.3	3	3.5	4

Qutine Size drawing

UNIT: mm

size	D	d	H	L
Ø19	50.5	16	99	68
Ø25	50.5	22	99	68
Ø32	50.5	29	99	68
Ø38	50.5	35	99	72
Ø45	64	42	114	72
Ø51	64	48	125	72
Ø57	77.5	53	130	72
Ø63	77.5	59	140	72
Ø76	91	72	150	81
Ø89	106	85	165	82.5
Ø102	119	98	180	85



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

PVC plastic butterfly valve according to the different medium has a variety of optional material, corrosive resistance is strong, adapt to large diameter, small volume, light weight, health non-toxic material, easy maintenance and replacement.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN50-DN600	Seating Material	EPDM:-30℃~80℃
Body material	Plastic UPVC/CPVC	Core Material	Plastic UPVC/CPVC
End Connection	Wafer Flange	Stem Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Applicable media	Compatible PVC Food Industry Chemical Solvents
Structure	Midline Structure / A-type		

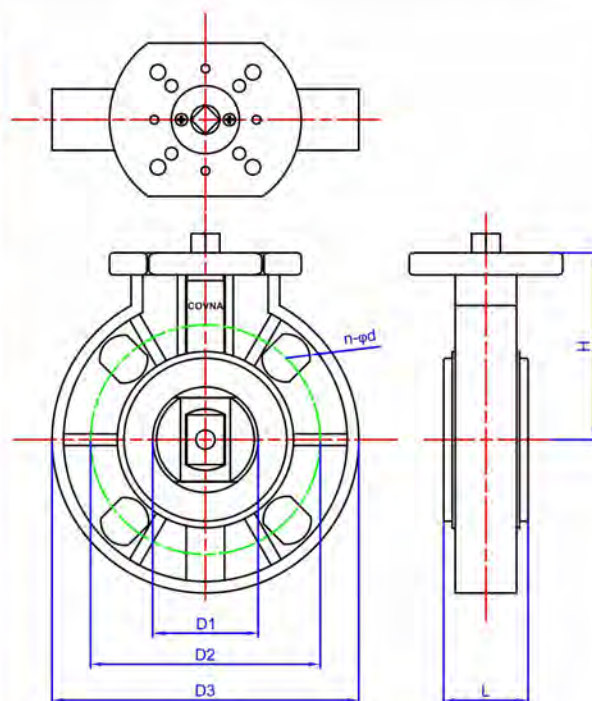
Product Weight

N.W. (kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Actuator	0.98	1.28	1.58	2.18	4.0	4.68	7.26
Valve Body	1.38	1.38	2.18	2.78	3.18	4.58	5.88

Qutine Size drawing

UNIT: mm

MODEL	D1	D2	D3	n-φd	L	H
DN50	50	125	160	4-φ20	43	99
DN65	63	145	180	4-φ20	46	118
DN80	78	160	196	8-φ20	49	128
DN100	98	180	228	8-φ20	54	140
DN125	122	210	258	8-φ20	64	168
DN150	146	240	287	8-φ23	70	181
DN200	199	295	344	8-φ23	88	235



Installation Instruction

- 1、 When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
- 2、 Valve open or close position is Indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
- 3、 Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
- 4、 For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.
- 5、 Valve should be checked for identification purpose and ensure that characteristics of valve matches to those specified for piping specifications. for the line where that is to be mounted. Nameplate instructions will give the necessary information.

Introduction

According to the sealing performance, pneumatic Butterfly valve can be divided into metal seal and Soft seal type. Advantages pneumatic butterfly valve Over other type valves may include: compact structure, Miniature size, long service life, good sealing performance, Easy maintenance, quick detachable and installation.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

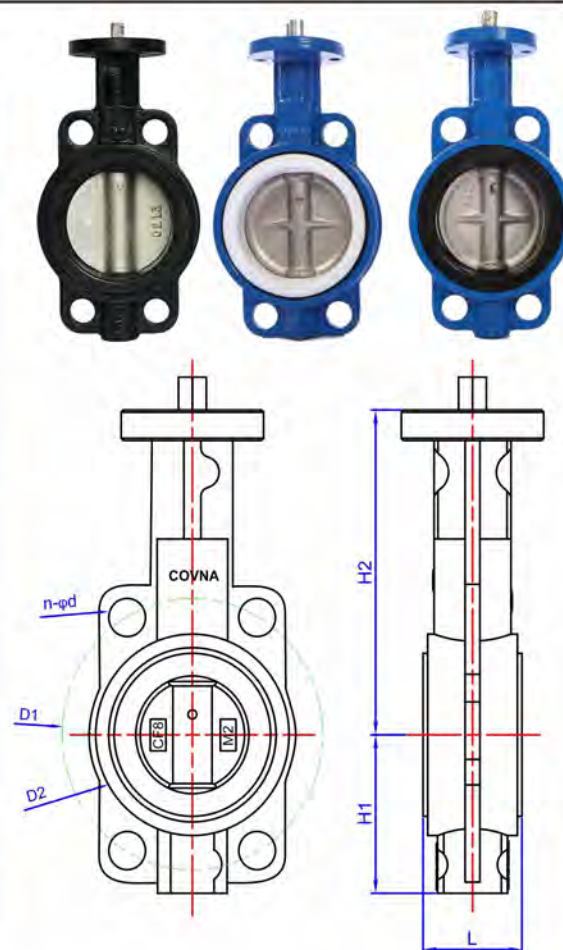
Body		Valve components	
Size Range	DN50-DN600	Seating Material	EPDM: -10℃~120℃ PTFE: -10℃~180℃ VITON: -10℃~100℃ NBR: -10℃~80℃
Body material	Stainless Steel		
End Connection	Wafer Flange	Core Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Stem Material	Stainless Steel
Structure	Midline Structure / A-type	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam

Product Weight

N.W.(kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
Actuator	1.38	2.18	2.18	2.78	3.18	5.88	9.08	12.68	19.98
Valve Body	2.1	2.5	3.1	4.3	5.7	7.1	11	17	22

Qutine Size drawing

MODEL	D1	n-φd	L	H1	H2
DN50	125	4-Ø19	43	63	99
DN65	145	4-Ø19	46	70	118
DN80	160	8-Ø19	46	89	128
DN100	180	8-Ø19	52	106	140
DN125	210	8-Ø19	56	120	168
DN150	240	8-Ø23	56	132	181
DN200	295	8-Ø23	60	164	235
DN250	355	12-Ø23	68	200	
DN300	410	12-Ø23	78	238	
DN350	470	16-Ø23	78	272	
DN400	525	16-Ø23	108	297	
DN450	585	20-Ø23	120	331	
DN500	650	20-Ø23	132	361	



Installation Instruction

- 1、When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
- 2、Valve open or close position is Indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
- 3、Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
- 4、For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.
- 5、Valve should be checked for identification purpose and ensure that characteristics of valve matches to those specified for piping specifications. for the line where that is to be mounted. Nameplate instructions will give the necessary information.

Introduction

According to the sealing performance, pneumatic Butterfly valve can be divided into metal seal and Soft seal type. Advantages pneumatic butterfly valve

Over other type valves may include: compact structure,

Miniature size, long service life, good sealing performance,

Easy maintenance, quick detachable and installation.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN50-DN600	Seating Material	EPDM: -10℃~120℃ PTFE: -10℃~180℃ VITON: -10℃~100℃ NBR: -10℃~80℃
Body material	Stainless Steel		
End Connection	Wafer Flange	Core Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Stem Material	Stainless Steel
Structure	Midline Structure / A-type	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam

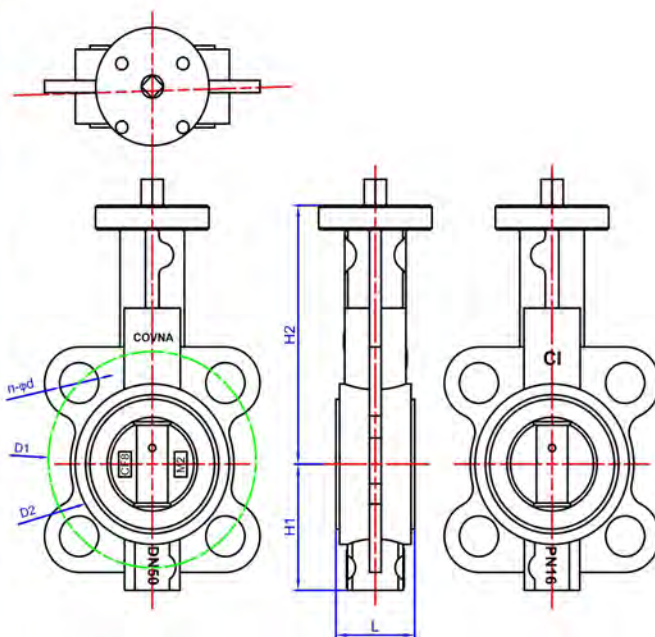
Product Weight

N.W.(kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
Actuator	1.38	2.18	2.18	2.78	3.18	5.88	9.08	12.68	19.98
Valve Body	2.1	2.5	3.1	4.3	5.7	7.1	11	17	22

Qutine Size drawing

UNIT: mm

MODEL	D1	D2	n-φd	L	H1	H2
DN50	125	96	4-Ø19	45	70	99
DN65	145	104	4-Ø19	47	80	118
DN80	160	127	8-Ø19	48	92	128
DN100	180	153	8-Ø19	58	107	140
DN125	210	180	8-Ø19	59	121	168
DN150	240	206	8-Ø23	59	134	181
DN200	295	270	8-Ø23	64	170	235
DN250	355	320	12-Ø23	70	208	
DN300	410	368	12-Ø23	78	240	
DN350	470	428	16-Ø23	80	265	
DN400	525	482	16-Ø23	108	297	
DN450	585	542	20-Ø23	120	331	
DN500	650	605	20-Ø23	132	361	



Installation Instruction

- 1、 When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
- 2、 Valve open or close position is Indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
- 3、 Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
- 4、 For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.
- 5、 Valve should be checked for identification purpose and ensure that characteristics of valve matches to those specified for piping specifications. for the line where that is to be mounted. Nameplate instructions will give the necessary information.

Introduction

According to the sealing performance, pneumatic Butterfly valve can be divided into metal seal and Soft seal type. Advantages pneumatic butterfly valve Over other type valves may include: compact structure, Miniature size, long service life, good sealing performance, Easy maintenance, quick detachable and installation.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN50-DN600	Seating Material	EPDM: -10℃~120℃ PTFE: -10℃~180℃ VITON: -10℃~100℃ NBR: -10℃~80℃
Body material	Stainless Steel		
End Connection	Wafer Flange	Core Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Stem Material	Stainless Steel
Structure	Midline Structure / A-type	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam

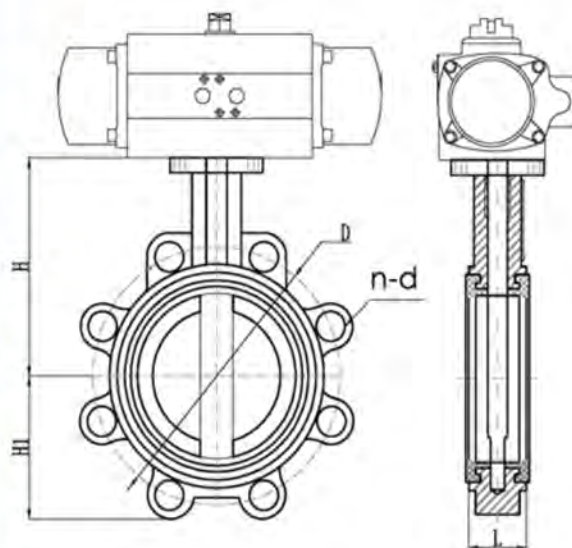
Product Weight

N.W.(kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
Actuator	1.38	2.18	2.18	2.78	3.18	5.88	9.08	12.68	19.98
Valve Body	2.1	2.5	3.1	4.3	5.7	7.1	11	17	22

Qutine Size drawing

UNIT: mm

MODEL	L	D	H1	H2	n-d
DN50	42	125	193	80	4-16
DN65	45	145	212	89	4-16
DN80	45	160	232	95	8-16
DN100	52	180	280	114	8-16
DN125	55	210	302	127	8-16
DN150	55	240	330	139	8-20
DN200	60	295	419	175	8-20/12-20
DN250	66	350/355	482	203	12-20/12-24
DN300	76	400/410	553	242	12-20/12-24
DN350	76	460/470	635	267	16-20/16-24
DN400	86	515/525	709	301	16-24/16-27
DN450	105	565/585	750	381	20-24/20-27
DN500	130	620/650	840	387	20-24/20-30



Installation Instruction

1. When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
2. Valve open or close position is indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
3. Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
4. For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.
5. Valve should be checked for identification purpose and ensure that characteristics of valve matches to those specified for piping specifications. for the line where that is to be mounted. Nameplate instructions will give the necessary information.

Introduction

According to the sealing performance, pneumatic butterfly valve can be divided into metal seal and soft seal type. Advantages of pneumatic butterfly valve over other type valves may include: Compact structure. miniature size. long service life. good sealing performance. easy maintenance. quick detachable and installation.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

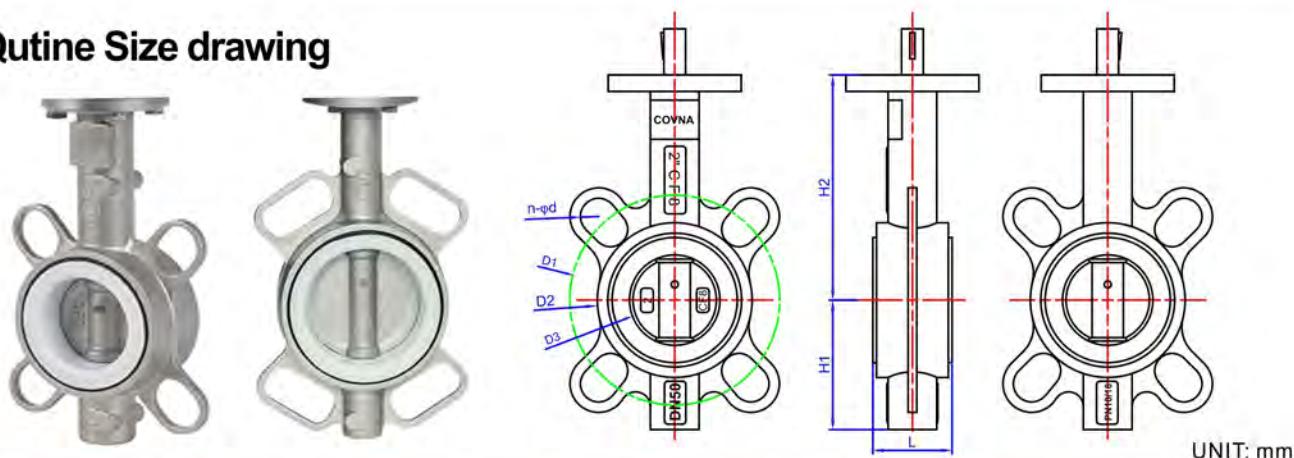
Technical Parameters

Body		Valve components	
Size Range	DN50-DN600	Seating Material	EPDM: -10℃~120℃ PTFE: -10℃~180℃ VITON: -10℃~100℃ NBR: -10℃~80℃
Body material	Stainless Steel		
End Connection	Wafer Flange	Core Material	Stainless Steel
Operating Pressure	1.0MPa 1.6MPa	Stem Material	Stainless Steel
Structure	Midline Structure / A-type	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam

Product Weight

N.W(kg).	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN550	DN500	DN600
Actuator	1.4	2.2	2.3	2.8	3.2	4.6	5.9	6.5	9.1					
Valve Body	2.1	2.5	3.1	4.3	5.7	7.1	11	17	22					

Qutine Size drawing



MODEL	D1	D2	D3	n-φd	L	H1	H2
DN50	125	89	52.7	4-Ø18	41	77	130
DN65	145	104	64.4	4-Ø18	43	77	142
DN80	160	127	78.8	4-Ø18	44.5	77	155
DN100	180	153	104.2	8-Ø18	50	92	170
DN125	210	180	123.3	8-Ø18	54	92	173
DN150	240	206	157	8-Ø18	54	92	204
DN200	295	270	202.5	8-Ø23	60	114	239
DN250	355	320	250.5	8-Ø23	66	115	275
DN300	410	368	301.6	12-Ø26	75.5	140	320
DN350	470	428	333.3	12-Ø26	86.5	140	368
DN400	525	482	389.6	12-Ø26	86.5	197	400
DN450	585	542	440.5	16-Ø30	105.6	197	422
DN500	650	605	491.6	20-Ø30	131.8	197	480
DN600	770	605	592.5	20-Ø36	152	297	562

Installation Instruction

- 1、When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
- 2、Valve open or close position is Indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
- 3、Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
- 4、For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.

Introduction

Series butterfly valve is triple off-set design which has a Advantage of light weight, Compact design and costeffective And low operation torque and can replace traditional gate, Globe & ball valve in most of industries application



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

Body		Valve components	
Size Range	DN50-DN600	Seating Material	Hard metal, tungsten carbide, nickel alloy
Body material	Stainless Steel	Core Material	Stainless Steel
End Connection	Wafer flange	Stem Material	Stainless Steel
Operating Pressure	1.0MPa, 1.6MPa, 2.5MPa	Applicable media	Liquid, gas, steam, high temperature medium, wear-resistance medium .
Structure	Triple eccentric		

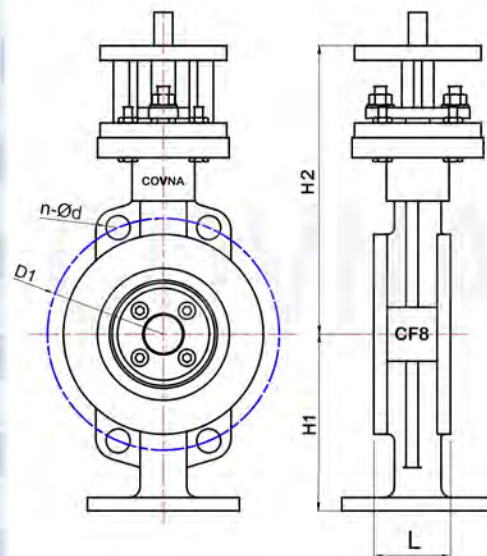
Product Weight

N.W.(kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN550	DN500
Actuator													
Valve Body													

Qutine Size drawing

UNIT: mm

DN	D1	n-φd	L	H1	H2
DN50	125	4-Ø18	43	80	
DN65	145	4-Ø18	46	90	
DN80	160	4-Ø18	49	98	
DN100	180	8-Ø18	56	112	
DN125	210	8-Ø18	64	128	
DN150	240	8-Ø18	70	147	
DN200	295	8-Ø23	71	178	
DN250	355	8-Ø23	76	215	
DN300	410	12-Ø26	78	250	
DN350	470	12-Ø26	78	280	
DN400	525	12-Ø26	102	320	
DN450	585	16-Ø30	114	350	
DN500	650	20-Ø30	127	380	
DN600	770	20-Ø36	154	440	



Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

The butterfly valve, in comparison to other ordinary valves, has structural advantages such as simple construction, compact and light weight, and being piping work friendly, as well as various functional advantages, such as suitability for automated operation by open/close with 90-degrees action and excellent fluid controllability, so that it is adopted in vast fields.

The KITZ butterfly valve series that realized a rich line-up high quality immediate delivery system meets inquiries from any type of piping line with excellent function and performance.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

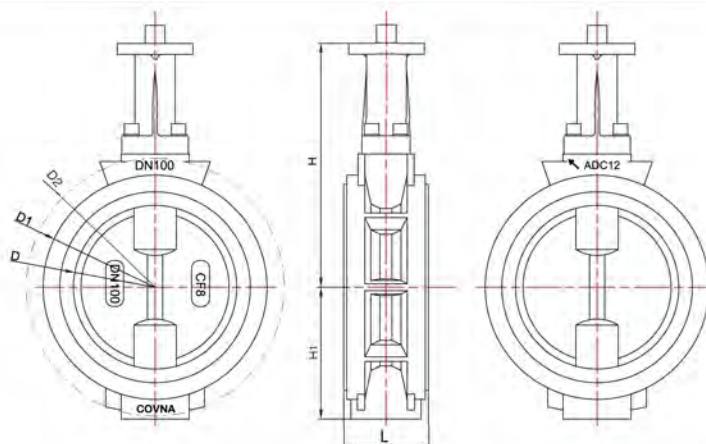
Technical Parameters

Body		Valve components	
Size Range	DN40-DN200	Seating Material	PTFE: -10℃ ~180℃ (White) PPL: -10℃ ~250℃ (Black)
Body material	Stainless Steel , Aluminum Alloy	Core Material	Stainless Steel
End Connection	Flange	Stem Material	Stainless Steel
Operating Pressure	1.6MPa	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure	Midline Structure		

Product Weight

N.W.(kg)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator									
Valve Body									

Outline Size Drawing



UNIT: mm

SIZE	D	D1	D2			L	H1	H2
			10K	Class 150	PN16			
DN40	40	80	105	98.5	—	33	40	128
DN50	50	93	120	120.5	125	43	66	132
DN65	65	118	140	139.5	145	46	74	141
DN80	80	129	150	152.5	160	46	83	149
DN100	100	149	175	190.5	180	52	94	160
DN125	125	184	210	216	210	56	122	195
DN150	150	214	240	241.5	240	60	135	207
DN200	200	258	—	298.5	—	218	218	234

Installation Instruction

1. Before installing the valve, clean the line of dirt, scale, welding chips, and other foreign material. Clean gasket surfaces thoroughly to insure leak-proof joints.
2. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
3. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
4. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
5. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
6. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.
7. Check flow direction to be sure valve is installed correctly. Fail-closed valves should be installed with the shaft upstream only in gas service. It's preferred that liquid service valves be installed with the shaft downstream regardless of air failure action. However, under certain flow conditions the valve can flow shaft upstream. Consult the factory if the valve must be mounted with the shaft upstream in liquid service. Fail-open valves should be installed with the shaft downstream.
8. Fully close the valve before and during the installation process. Keep hands, hair, clothing, etc. away from the rotating disc and the seat when operating the valve. Failure to do so could cause serious injury.
9. Make sure proper clearance exists internally in the mating piping to permit proper disc rotation.

Introduction

1. The valve with more and more tightly sealed off function, a reliable sealing performance.
2. Sealing material selection matching stainless steel and nitrile rubber oil, long service life.
3. PTFE sealing to pull on the body, can also be located dish plate, applicable to different characteristics of the medium for users to choose.
4. dish plate with frame structure, high strength, flow area, flow resistance.



Pneumatic Actuator

Double acting	Air to open, air to close, air supply failure to keep the current position
Single Acting N/C	Air to open, interrupt air to close, air failure to close
Single Acting N/O	Air to close, interrupt air to open, air failure to open
Optional accessory	Reversing solenoid valve, limit switch box, air filter reducing valve, positioner, handle manual, lock up valve

Technical Parameters

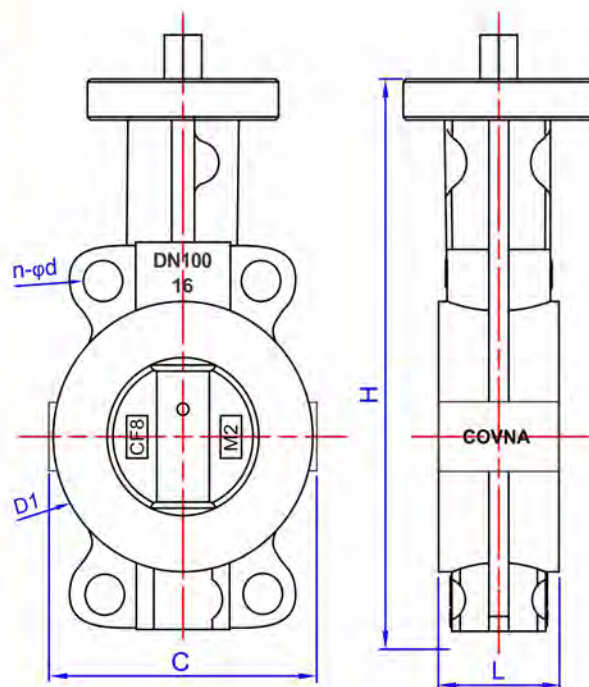
Body		Valve components	
Size Range	DN50-DN500	Body material	Stainless Steel
End Connection	Wafer Flange	Seating Material	PTFE: -10℃~180℃
Operating Pressure	1.0MPa 1.6MPa	Core Material	Stainless Steel
Structure	Midline Structure / A-type	Applicable media	Control of Water, Air, Gas, Oil, Liquid, Steam

Product Weight

N.W.(kg)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
Actuator									
Valve Body									

Qutine Size drawing

MODEL	D1	n-φd	L	H1	C
DN50	125	4-Ø19	43	212	130
DN65	145	4-Ø19	46	230	150
DN80	160	8-Ø19	46	233	164
DN100	180	8-Ø19	52	270	188
DN125	210	8-Ø19	56	298	220
DN150	240	8-Ø23	56	337	252
DN200	295	8-Ø23	60	407	305
DN250	355	12-Ø23	68	481	370
DN300	410	12-Ø23	78	555	430
DN350	470	16-Ø23	78	610	470
DN400	525	16-Ø23	102	715	565
DN450	585	20-Ø23	114	778	620
DN500	650	20-Ø23	127	870	695



Installation Instruction

1. When removing the valve from storage a careful check should be made to ensure that the valve has not been damaged during the storage period.
2. Valve open or close position is Indicated on the notch plate for lever operated valves or on the top of the gear operator for gear operator operated valves.
3. Center valve, span body with bolts, but do not tighten. Slowly open disc to ensure that it clears adjacent pipe ID and leave at full open position.
4. For flange welding center valve with disc 10 open between flanges, span bolts, align this assembly in pipe and tack weld flanges to pipe. After tack welding, remove valve and finish welding.
5. Valve should be checked for identification purpose and ensure that characteristics of valve matches to those specified for piping specifications. for the line where that is to be mounted. Nameplate instructions will give the necessary information.

Introduction

1. Operating media

Dry or lubricated air, or the non-corrosive gases The maximum particle diameter must less than 30 u m

2. Air supply pressure

The minimum supply pressure is 2.5 Bar The maximum supply pressure is 8 Bar

3. Operating temperature

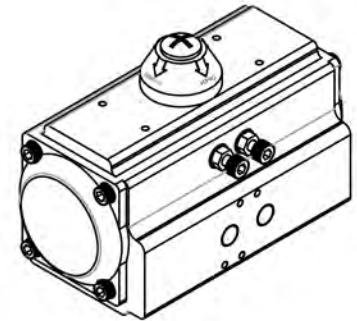
Standard: -20°C ~ + 80°C

Low temperature: -35°C ~ +80°C

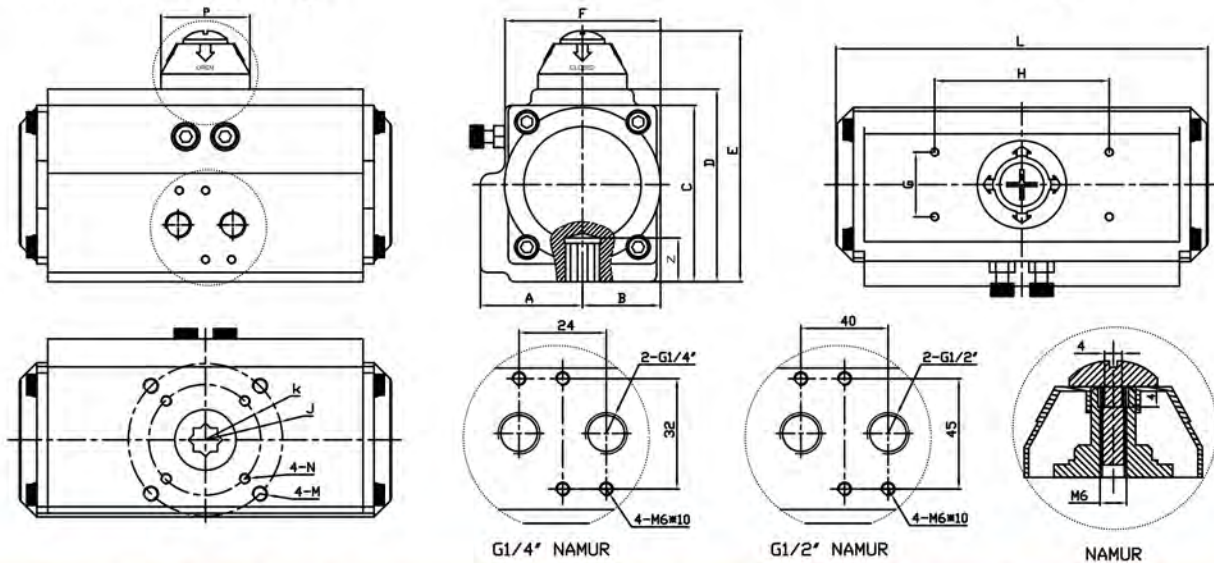
High temperature: -15°C ~ M50°C

4. Travel adjustment

Have adjustment range of $\pm 5^\circ$ for the rotation at 0° and 90°



Outline Size drawing



MODEL	A	B	C	D	E	F	G	H	J	K	N	M	L	P	Z	Air Hole
AT52	30	42.5	65.5	72.4	92.5	50.5	30	80	Ø36	Ø50	M5×8	M6×10	150	42	14	NAMUR G1/4"
AT65	36	47	81	88.5	98.5	69.5	30	80	Ø50	Ø70	M6×10	M8×13	171	42	18	NAMUR G1/4"
AT75	42.5	53	93	100	120	78	30	80	Ø50	Ø70	M6×10	M8×13	186	42	18	NAMUR G1/4"
AT83	46.5	57	98.5	109.7	129.5	86	30	80	Ø50	Ø70	M6×10	M8×13	206	42	21	NAMUR G1/4"
AT92	50	58	106	117	137	90	30	80	Ø50	Ø70	M6×10	M8×13	265	42	21	NAMUR G1/4"
AT105	57.5	64	122.5	135	155	104.5	30	80	Ø70	Ø102	M8×13	M10×16	272	42	27	NAMUR G1/4"
AT125	67.5	74.5	145.5	157	177	120.5	30	80	Ø70	Ø102	M8×13	M10×16	304	60	27	NAMUR G1/4"
AT140	75.5	75.5	161	174	194	125	30	80	Ø102	Ø125	M10×16	M12×20	395	60	32	NAMUR G1/4"
AT160	87	87	184	198	228	143	30	80	Ø102	Ø125	M10×16	M12×20	462	60	32	NAMUR G1/4"
AT190	103	103	216	232	262	172	30	130	Ø102	Ø140	M10×16	M16×25	520	85	40	NAMUR G1/4"
AT210	113	113	235.5	257	287	194	30	130	Ø102	Ø140	M10×16	M16×25	538	85	40	NAMUR G1/4"
AT240	130	130	235.5	292	322	230	30	130		Ø165		M20×30	592	90	50	NAMUR G1/4"
AT270	147	147	235.5	331	361	253	30	130		Ø165		M20×30	713	90	50	NAMUR G1/2"
AT300	161	168	235.5	354	384	290	30	130	Ø165	Ø215	M20×30	M20×30	771	90	50	NAMUR G1/2"

Common faults and inspection, troubleshooting

Failure Phenomenon	Inspection Items	Solution
Pneumatic Valve Can Not Move	The electromagnetic valve is normal, Coil is burned, electromagnetic valve Is stuck being stolen	Solenoid valve replacement, Replacement coils, remove stolen Property.
	A separate air supply pneumatic Actuator test check seals and Whether the cylinder is damaged.	Replace a bad ring and cylinder.
	There are impurities in the spool Valve stuck.	Remove impurities, replace Damaged parts.
	the handle in a manual hand motor location.	Interchange
Slow Motion, Crawling	Supply pressure is not enough.	The increase of gas supply pressure(0.4–0.7mpa)
	Pneumatic actuator outputtorque is Too small.	Increase the pneumatic actuator Production.
	The valve spool or valve assembly too tight.	Re-assembly adjustments.
	Air supply pipe plug, flow is too small.	Exclude plug, replace the filter cartridge.
Reply Devices Without Signal	power line short circuit or open circuit.	Maintenance of power lines.
	reply within the cam position is not accurate.	Adjust the cam to the correct location
	Micro switch damaged.	Replacement micro switch

Air consumption rest with Supply. Air volume and Action q/cle times, expressions

$L/Min = \text{Air volume}(\text{Air volume Opening} + \text{Air volume closing}) \times [(\text{Air Supply}(Kpa) + 101.3) - 101.3] \times \text{Action cycle times}(/min)$

SOLENOID VALVE



ELECTRIC VALVE



PNEUMATIC VALVE



SPECIALIZED FLUID CONTROL VALVE MANUFACTURER

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