

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	
Nominal Size	DN15~DN100	Seat Material	PTFE: -30℃~180℃ PPL: -30℃~250℃
Body Material	SS304, SS316, SS316L	Disc Material	SS304, SS316, SS316L
Connection Type	Clamp, Welding	Stem Material	SS304,
Pressure Rating	PN1.6MPa	Design Standard	ISO、DIN、IDF、SMS、3A
Structure type	Floating ball core 3 way L-type/ T-type ball valve	Applicable Medium	Food, Medicine, Packaging Machinery, Filling Machinery And Other Health Conditions Using Level.

Qutine Size drawing

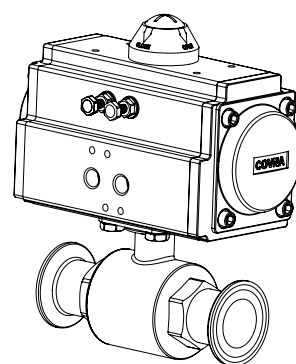
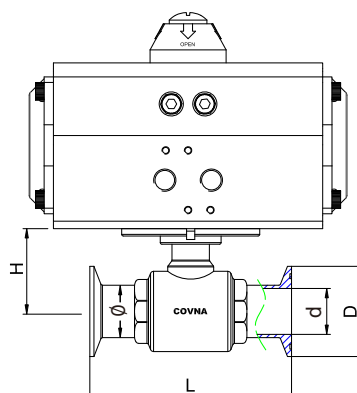
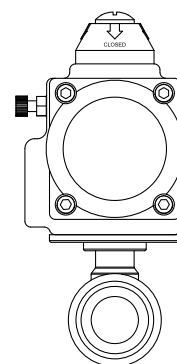
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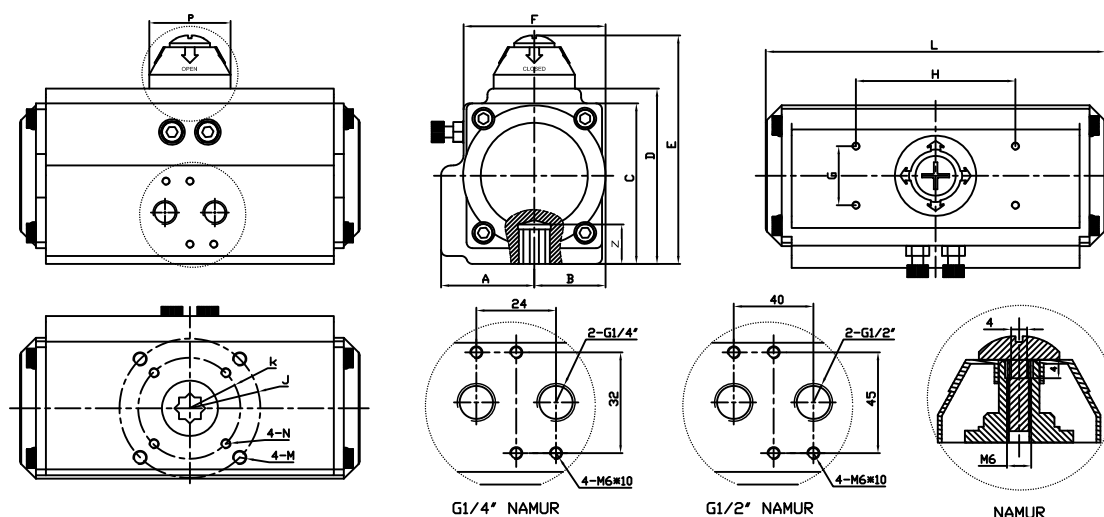
Size	3/4"	1"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/4"	2-1/2"	3"	3-1/2"	4"
	Ø19	Ø25	Ø32	Ø38	Ø45	Ø51	Ø57	Ø63	Ø76	Ø89	Ø102
d	16.5	22	28.5	35	41	47.5	52	58.2	72	84.8	98.3
D	50.5	50.5	50.5	50.5	64	64	77.5	77.5	91	106	119
L	101	117	125	140	155	165	170	176	200	240	270
H	45	50	51	64	67	70	74	80	100	107	122

Note: Tolerance of data L is +2/-0

Maintenance

- Tightening the seal between the valve and the actuator:
Remove the four bolts underneath the actuator. Separate the actuator from the valve.
Tighten the nut on the top of the valve body.
Place the actuator back on the valve and screw everything back into place.
- Tightening the seals between the valve and the inlet/outlet ports:
Remove the torque bolts and check for any debris or damage to the gaskets.
Use a torque wrench or other consistent method of tightening the torque bolts to reconnect the inlet and outlet ports.





Introduction

1. Operating media: Dry or lubricated air, or the non-corrosive gases The maximum particle diameter must less than 30 μ 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 ~ $+80^{\circ}$ c Low temperature: -35° c ~ $+80^{\circ}$ c High temperature: -15° c ~ $+150^{\circ}$ 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	$\varnothing 36$	$\varnothing 50$	M5 \times 8	M6 \times 10	150	42	14	NAMUR G1/4"
AT63	36	47	81	88.5	98.5	69.5	30	80	$\varnothing 50$	$\varnothing 70$	M6 \times 10	M8 \times 13	171	42	18	NAMUR G1/4"
AT75	42.5	53	93	100	120	78	30	80	$\varnothing 50$	$\varnothing 70$	M6 \times 10	M8 \times 13	186	42	18	NAMUR G1/4"
AT83	46.5	57	98.5	109.7	129.5	86	30	80	$\varnothing 50$	$\varnothing 70$	M6 \times 10	M8 \times 13	206	42	21	NAMUR G1/4"
AT92	50	58	106	117	137	90	30	80	$\varnothing 50$	$\varnothing 70$	M6 \times 10	M8 \times 13	265	42	21	NAMUR G1/4"
AT105	57.5	64	122.5	135	155	104.5	30	80	$\varnothing 70$	$\varnothing 102$	M8 \times 13	M10 \times 16	272	42	27	NAMUR G1/4"
AT125	67.5	74.5	145.5	157	177	120.5	30	80	$\varnothing 70$	$\varnothing 102$	M8 \times 13	M10 \times 16	304	60	27	NAMUR G1/4"
AT140	75.5	75.5	161	174	194	125	30	80	$\varnothing 102$	$\varnothing 125$	M10 \times 16	M12 \times 20	395	60	32	NAMUR G1/4"
AT160	87	87	184	198	228	143	30	80	$\varnothing 102$	$\varnothing 125$	M10 \times 16	M12 \times 20	462	60	32	NAMUR G1/4"
AT190	103	103	216	232	262	172	30	130	$\varnothing 102$	$\varnothing 140$	M10 \times 16	M16 \times 25	520	85	40	NAMUR G1/4"
AT210	113	113	235.5	257	287	194	30	130	$\varnothing 102$	$\varnothing 140$	M10 \times 16	M16 \times 25	538	85	40	NAMUR G1/4"
AT240	130	130	235.5	292	322	230	30	130		$\varnothing 165$		M20 \times 30	592	90	50	NAMUR G1/4"
AT270	147	147	235.5	331	361	253	30	130		$\varnothing 165$		M20 \times 30	713	90	50	NAMUR G1/2"
AT300	161	168	235.5	354	384	290	30	130	$\varnothing 165$	$\varnothing 215$	M20 \times 30	M20 \times 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 output torque 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

SOLENOID VALVE



ELECTRIC VALVE



PNEUMATIC VALVE



SPECIALIZED FLUID CONTROL VALVE MANUFACTURER

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Street, Dongcheng District, Dongguan City, China, 523000

E-mail: Bond@covna-china.com

Tel: 86-769-22456666 22763199

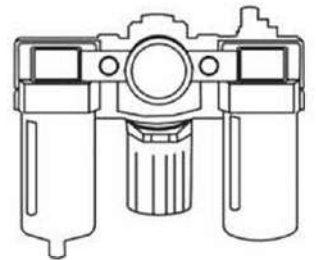
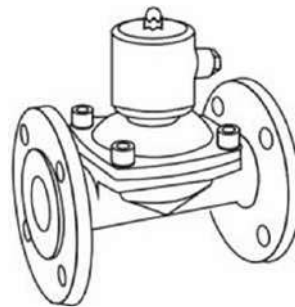
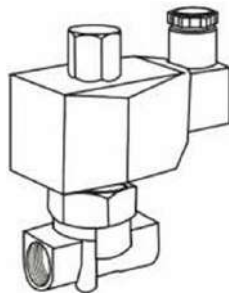
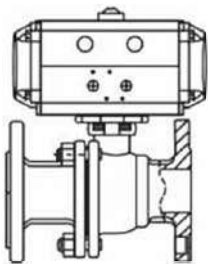
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Introduction

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

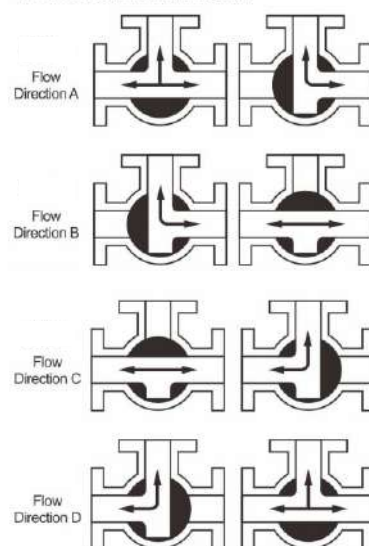
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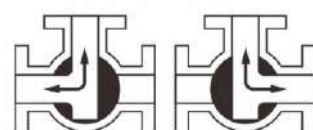
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T-Pattern Flow Direction Diagram



L-Pattern Flow Direction Diagram



Qutine Size drawing

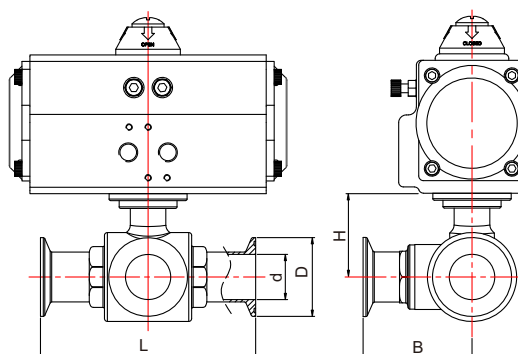
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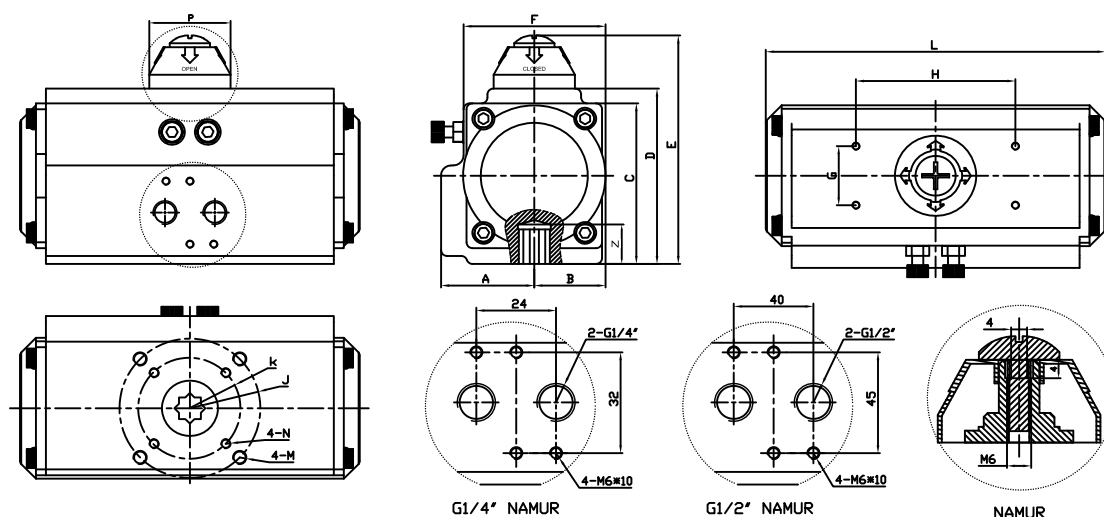
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D	50.5	50.5	50.5	50.5	64	77.5	91	106	119
L	105	126	137	155	184	184	220	240	266
L1	60	61.5	69	77	90	92	122	135	150
H	45	48	52.5	65	74	84	102	112	122

Note: Tolerance of data L is +2/-0

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