

ACTUATOR

Specifications						Motor data					
Actuator type	Mounting pad (ISO)	Operation time (SEC/90°)	Max. Torque (N-M)	Manual Part	Weatherproof	Speed rpm	Absorbed current amp (50/60Hz)				N.W. (Kg)
							AC110V	AC220V	AC24V	DC24V	
S07	NO	60	10	✓	IP54	2.5	70mA	30mA		50mA	0.8
S10	F04	15	6.8	✗	IP65	4	0.05A	0.03A	0.22A	0.05A	0.9
		25	8			3					
		35	10			2					
S25	F04/F06	7	18	✗	IP66	300	0.3A	0.1A	0.8A	0.25A	1.7
	F05/F07	30	30								
S37	F05/F07	7	60	✓	IP66	3500	0.22A	0.1A		0.32A	2.7
		75	80								
S150	F07/F10	8	150	✓ Hand-wheel	IP66	1500	0.6A	0.3A			5.8
S152		80	250				1.2A	0.6A			
S200	F10/F12	10	300	✓ Hand-wheel	IP66	1200	4.14A	1.38A			18.5
S202		80	500								

SAFETY INSTRUCTIONS

- Non anti-explosion type. Don't assemble it at possible. Air-explosive area.
- Don't make it upside down or declin it below Water horizontal level in assembling.
- Fix the line-in slot with cable joint to avoid Odds entering.
- In paralleling combination, make a co-lock circuit at on/off joint.
- Assemble a resistor to avoid dewing ie The peripheral temperature is too low.
- Make sure the supply voltage is correct Before assembling.
- Please notice the supplier when you have Any doubt in wiring. When everything is Confirmed, the power then can be conveyed.

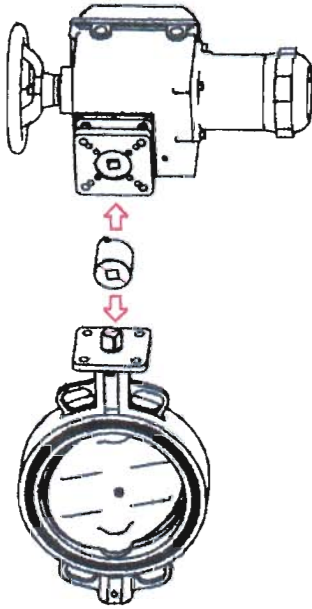
Prohibition

Parallel two sets or more in same circuit.
(Power source)

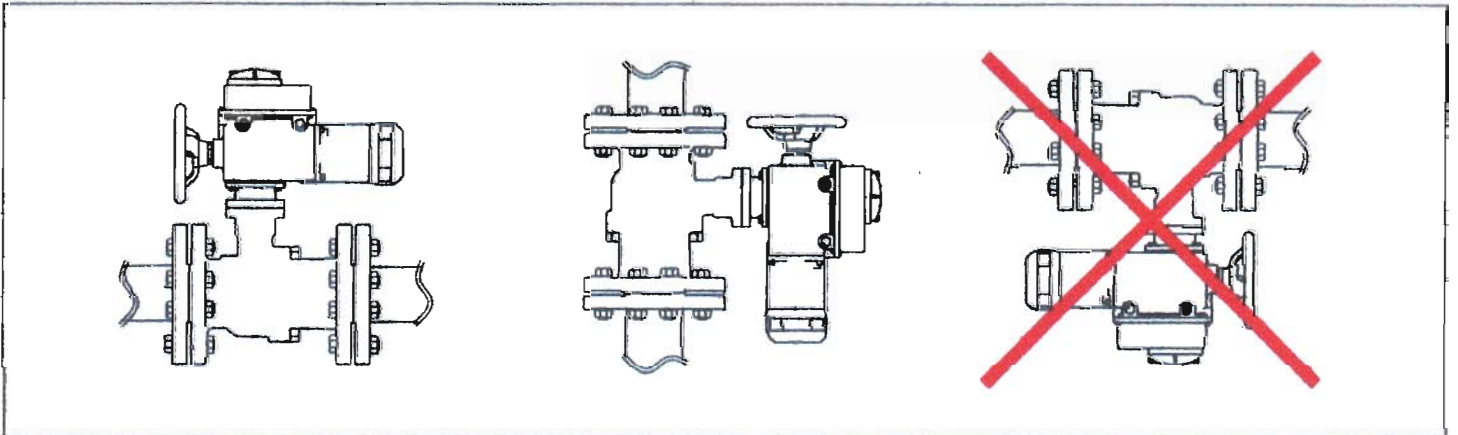
Applied method of parallel two sets

When parallel two sets or more, must make use of relay and indirect drive by independent controlled power source.

Remarks



- Ex-work position of the driving device - OFF
- Please confirm the torque value required of the valve, and then add with the coefficient of safety.
(i.e.) $10\text{N}\cdot\text{m} \times 150\% = 15\text{N}\cdot\text{m}$ (workable torque value)
- Please make sure if the specification of the central shaft in the valve platform complies with the norm of ISO5211.
- After positioning, please seal the positioning screw with water-proof tape.
- Don't install in the area of anti-explosion or water-showering.
- Please use it with rain shield when being installed outdoors.



Torque conversion table

	ozf.in	lbf.in	lbf.ft	gf.cm	kgf.cm	kgf.m	mN.m	cN.m	N.m
1 ozf.in	1	0.0625	0.005	72	0.072	0.0007	7.062	0.706	0.007
1 lbf.in	16	1	0.083	1152.1	1.152	0.0115	113	11.3	0.113
1 lbf.ft	192	12	1	13828	13.83	0.138	1356	135.6	1.356
1 gf.cm	0.014	0.0009	0.00007	1	0.001	0.00001	0.098	0.01	0.0001
1 kgf.cm	13.89	0.868	0.072	1000	1	0.01	98.07	9.807	0.098
1 kgf.m	1389	86.8	7.233	100000	100	1	9807	980.7	9.807
1 mN.m	0.142	0.009	0.0007	10.2	0.01	0.0001	1	0.1	0.001
1 cN.m	1.416	0.088	0.007	102	0.102	0.001	10	1	0.01
1 N.m	141.6	8.851	0.783	10197	10.2	0.102	1000	100	1

ACTUATOR

VALVE

<u>MODEL</u>	<u>VOLTAGE</u>	<u>ON-OFF TIME</u> (90° SEC)	<u>WAY</u>	<u>MATERIAL</u>	<u>END</u>	<u>SIZE</u> (mm)	<u>SPECIAL NOTES</u> (OPTIONALS)
■ S07	D12 DC12V	■ 60	2 2WAY	→ S1 CF8	PS → T1 PT	15 1/2"	1K
■ S10	D24 DC24V	■ 15	3 3WAY	S2 CF8M	→ F1 10K	20 3/4"	RS
■ S25	A24 AC24V	25 35	4 4WAY	→ B1 BC1	F2 20K	25 1"	A1
■ S37	A11 AC110V	■ 07	5 5WAY	→ F1 FC20	F3 150lb	32 1-1/4"	A2
■ S150	A22 AC220V	30	V V port	F2 FC25	→ N1 NBR	40 1-1/2"	H
■ S200		■ 07	B Butterfly Valve	F3 FCD	E1 EPDM	50 2"	
■ Q520E		75		W1 WCB	→ J1 JIS	65 2-1/2"	
		■ 08		→ P1 PVC	C1 CNS	80 3"	
		80		P2 PP	TT PT / Tport	100 4"	
		■ 10			TL PT / Lport	125 5"	
		80				150 6"	
		■ 60				200 8"	
						250 10"	
						300 12"	

PS.
T: Threaded, end
F: Flanged end
→ Symbol is standard product

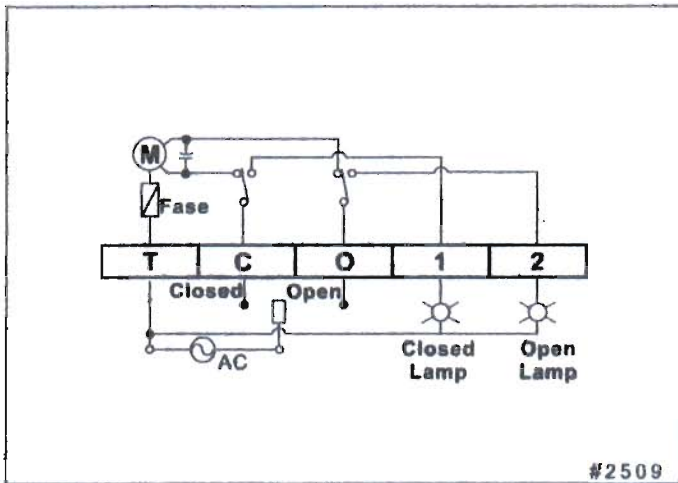


Installed as optional equipment

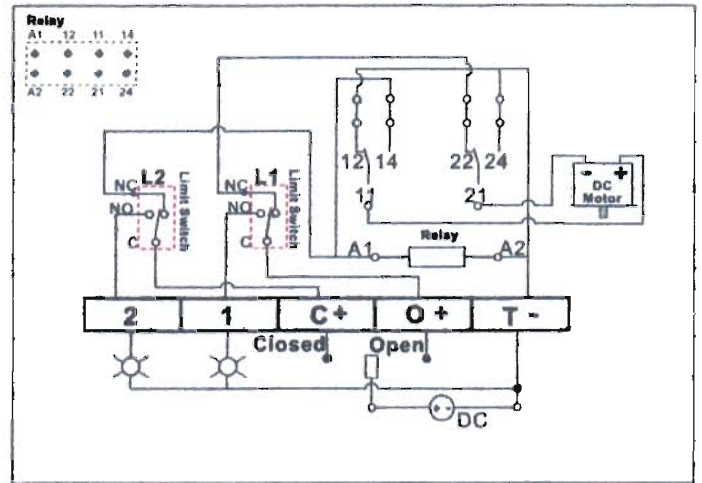
- 1K POTENTIOMETER** To transmit and remotely indicate valve position, a POTENTIOMETER can be provided. Dual POTENTIOMETER can be used with proportional control as a feedback signal unit.
- RS RESISTOR** Space heater inside of actuator prevents condensation due to temperature differences in a day. Standard RESISTOR keeps all electrical components in actuator clean dry.
- A1 AUX LIMIT SWITCH** Cam switch mechanism is driven directly from centre column and limits the valve position precisely. Anyone can make a position setting with the simple. Adjustable switch mechanism . even if exceeded by over-travel during manual operation . Set position is not changed.
- A2**
- H ADDS THE HIGH STRUCTURE** The heightened bracket is used to protect the normal function of the driving device when the internal temperature of the tube is too high or too low. It is suggested to install this heightened bracket when the temperature is up to 60°C or lower than 5°C.

WIRING DIAGRAMS

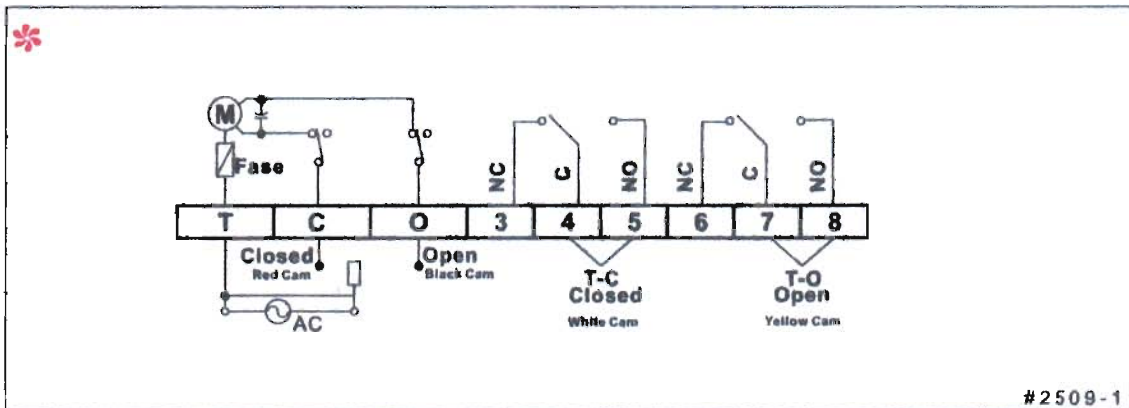
Standard Internal



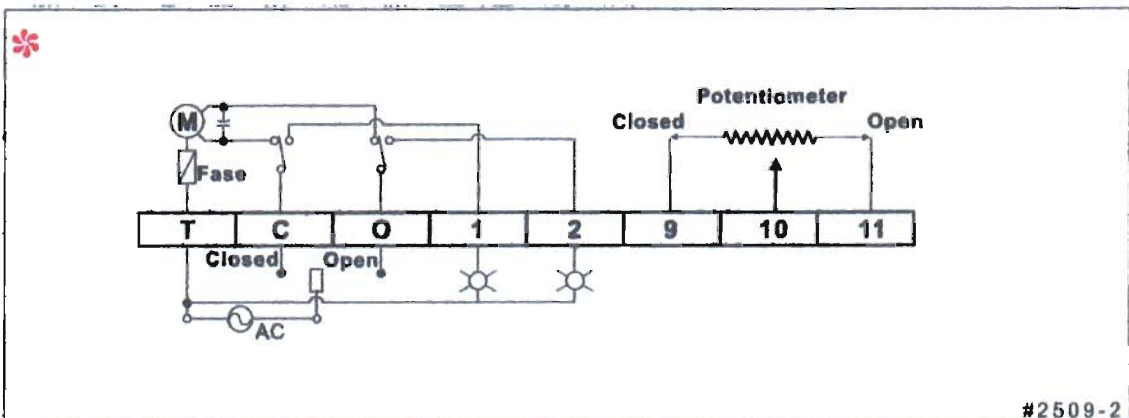
DC Motor wiring



Aux Limit Switch (Optional)

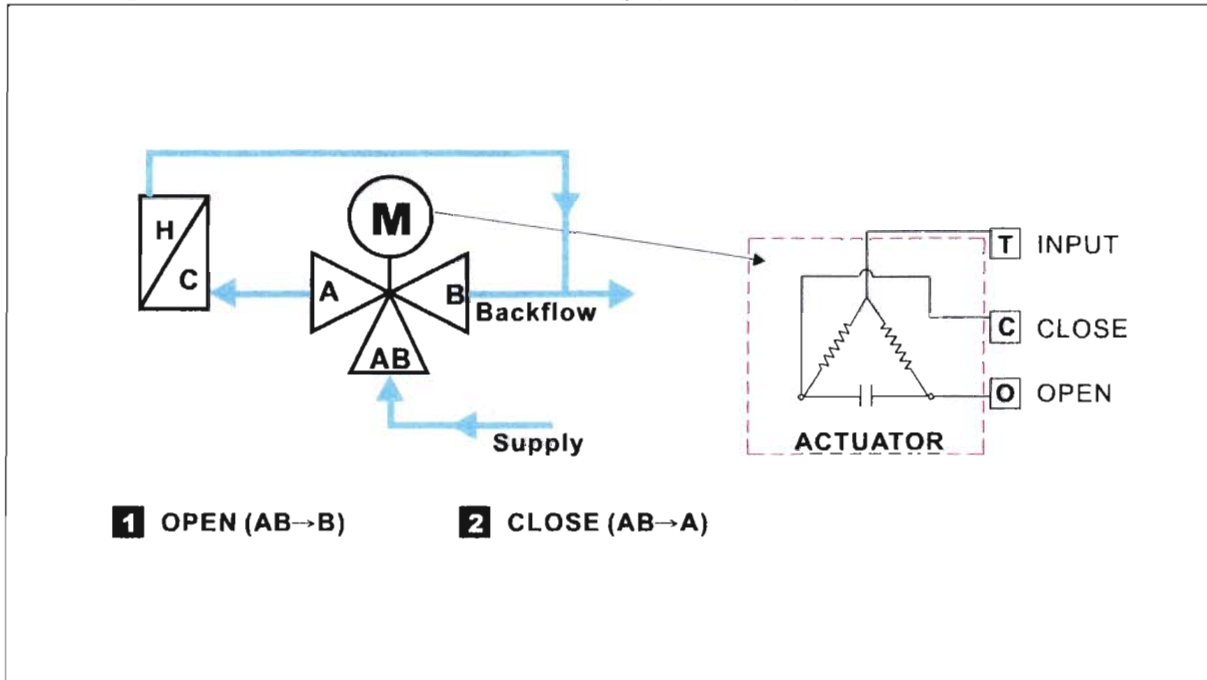


Potentiometer (Optional)

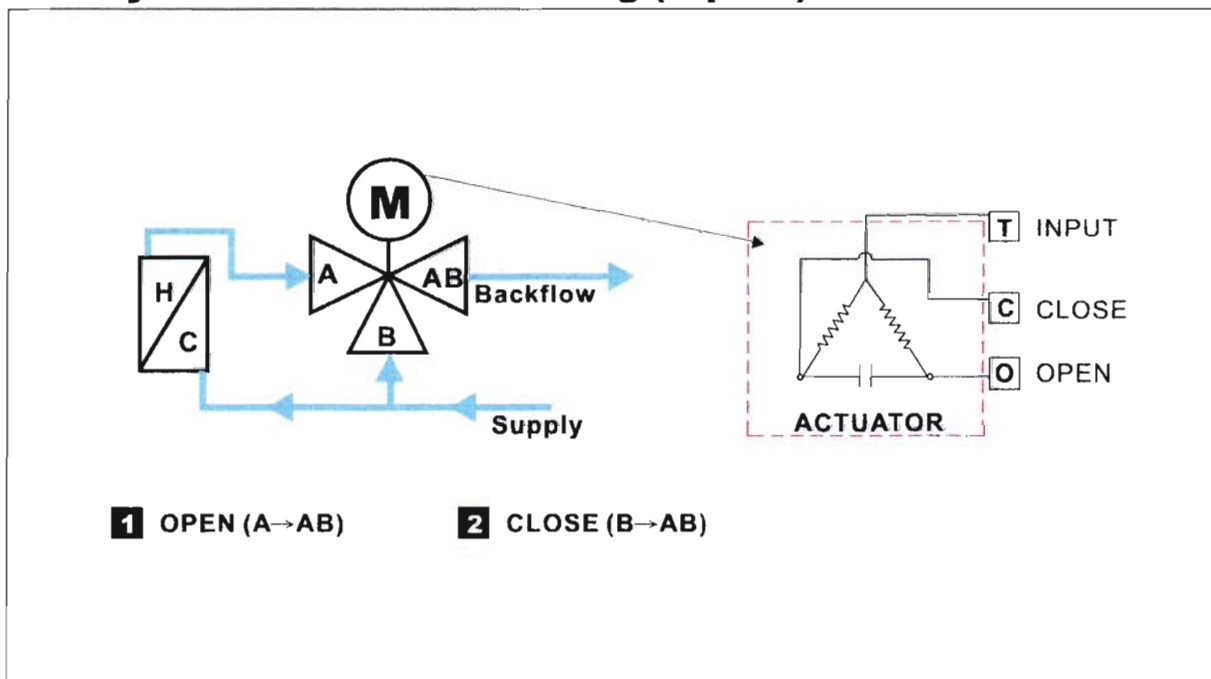


WIRING DIAGRAMS(3way)

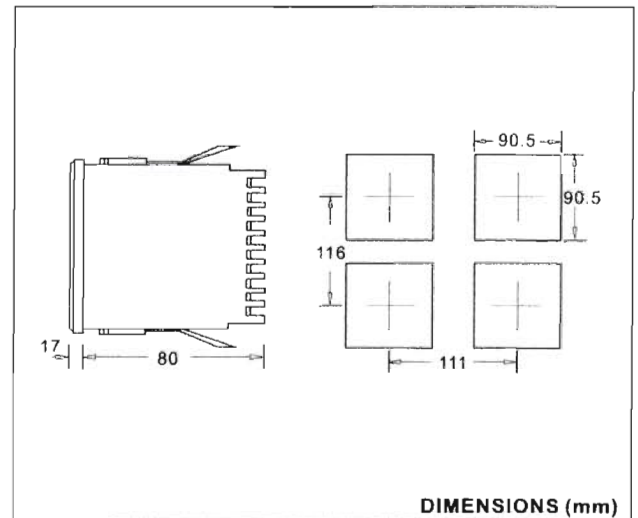
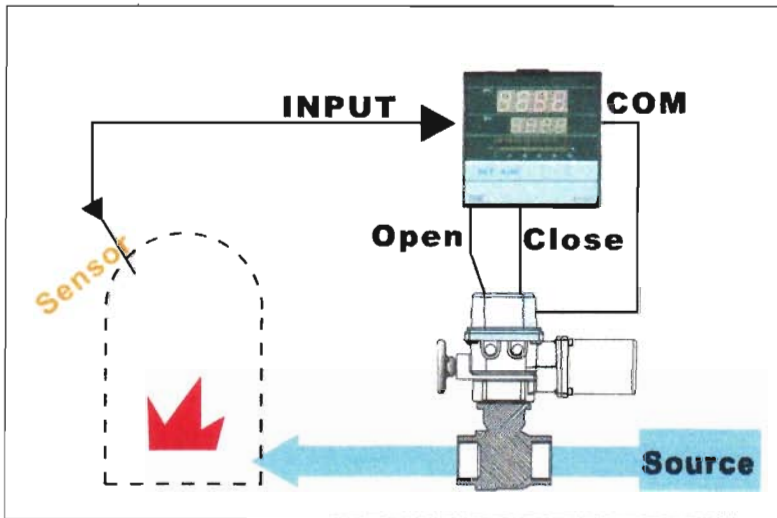
3 way motor ball valve wiring (L port)



3 way motor ball valve wiring (T port)



PROCESS AND TEMPERATURE CONTROL



EXAMPLE OF WIRING DIAGRAM

