



Model **J3-1310**



Doc: J3/1310/02
Nov 2007

Motorised 3 way brass ball valve with kit

Full bore 3 way nickel plated brass ball valve, designed for automation with integrally cast ISO5211 actuator mounting platform fitted via a stainless steel mounting kit with **J3** electric actuator. Supplied assembled and dry bench function tested. Full size range from 1/4" to 2". Available in both 'L' and 'T' port.

Type	Function
J3-1313	Standard power to open - power to close - Stays put on mains failure
J3-1314	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
J3-1315	Modulating DPS - Digital Positioning System

Applications:

Water, oil, air and most non-corrosive media, subject to compatibility with wetted parts in contact with media. Actuators sized on a maximum differential pressure of 10 bar wet service, if the intended duty is above this differential, or dry (air or gas) call to check actuator sizing as a larger output actuator may be required. NOT recommended for use on steam.

Maximum working temperature of valve & actuator assembly is +130C. If the intended duty is at a higher temperature than this, select a stainless steel valve -contact us for information.

Valve Specifications:

Body	Nickel plated brass
Ball	Hard chromed brass
Seats	PTFE
Pressure rating	UTI 3/4" 30bar, 1" 16bar, rest 10bar
Valve temp limits	-20 to +160°C
Actuator temp limits	-20 to + 70°C

Accessories:

Solenoid control:

This provides electrical control of the valve. The air is constantly supplied to the solenoid which in turn controls the air to and from the actuator. The solenoid direct mounts to the actuator using the actuator's Namur connection.

Position Confirmation:

Remote end of travel confirmation can be provided by adding a top mounted limit switch box. A variety of switch options and housings are available. See our LSB range for details.

Position control:

The standard on/ off function can be converted to modulating function, using either a 3-15psi or 4-20mA control signal, by adding a pneumatic or electro-pneumatic positioner. See our YT range for details.



Quick guide to the **J3** electric actuator standard features :

Highly visible LED light gives continuous actuator status indication.

J3 L - 12-24V AC/DC

J3 H - 80-240V AC/DC

Multi-voltage capable with auto-voltage sensing:

Torque output: range:
25~95Nm Break
20~80Nm Reset

Electronic torque limiter
Protects against valve jams

Anti-condensation heater

Manual override

All connections via external DIN plugs ~ no need to remove cover to connect

Volt free end of travel confirmation switches

IP65 weatherproof housing

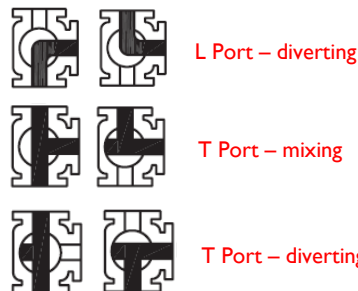
CE marked

Traceable sequential serial numbering system

Optional failsafe kit (Battery Back-up) - actuator fails to safe position on power failure

Optional modulating kit with digital positioning system, either 0-10V or 4-20mA

3 Way ball valves –flow patterns:





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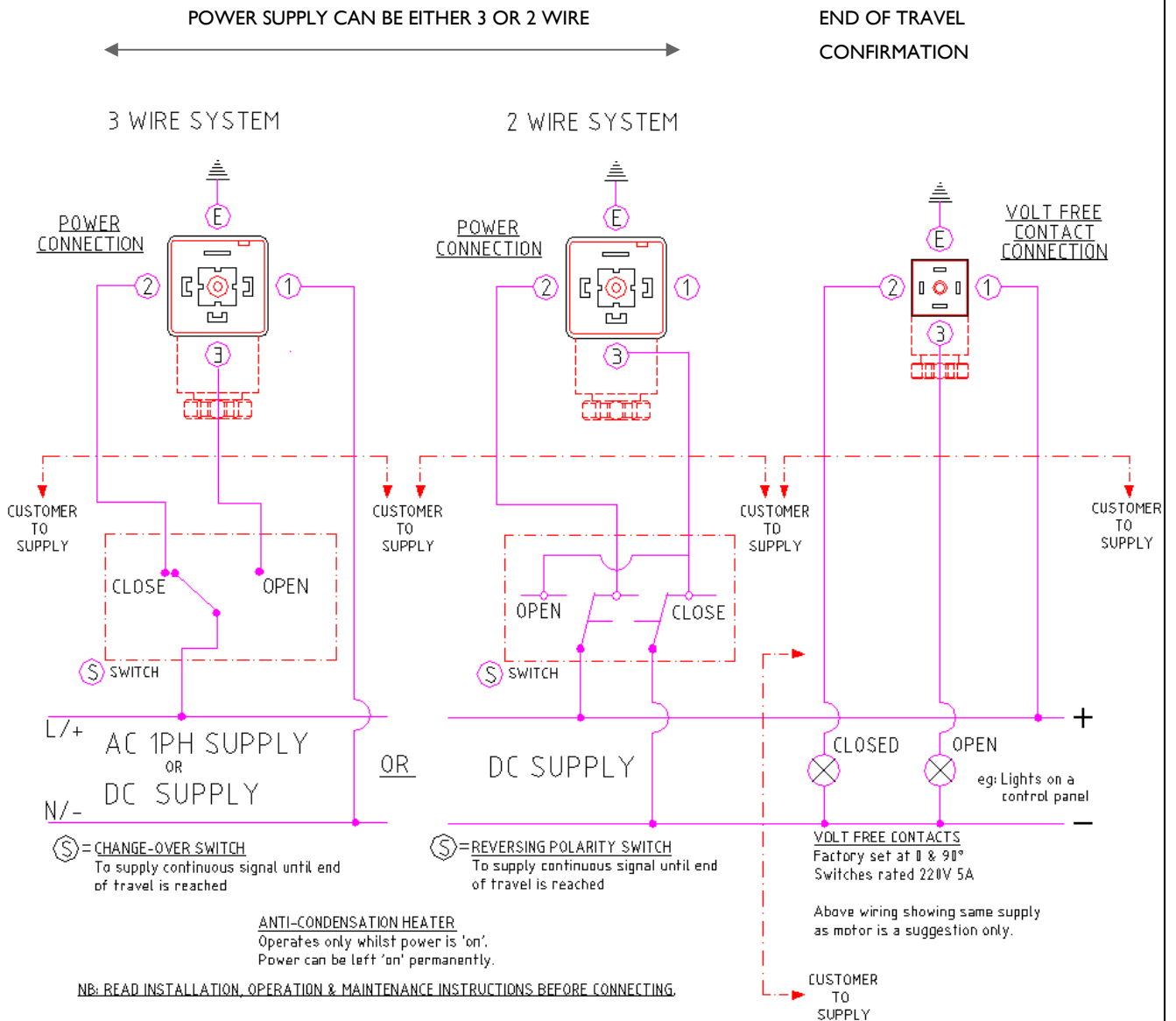
Wiring Diagram - AC or DC



Doc: J3/STD.WD/01

Jan 2008

AC (1ph) OR DC SUPPLY - WIRING FOR ON-OFF OR FAILSAFE ACTUATORS



(S) = CHANGE-OVER SWITCH
To supply continuous signal until end of travel is reached

(S) = REVERSING POLARITY SWITCH
To supply continuous signal until end of travel is reached

VOLT FREE CONTACTS
Factory set at 1 & 90°
Switches rated 220V 5A

Above wiring showing same supply as motor is a suggestion only.

CUSTOMER TO SUPPLY



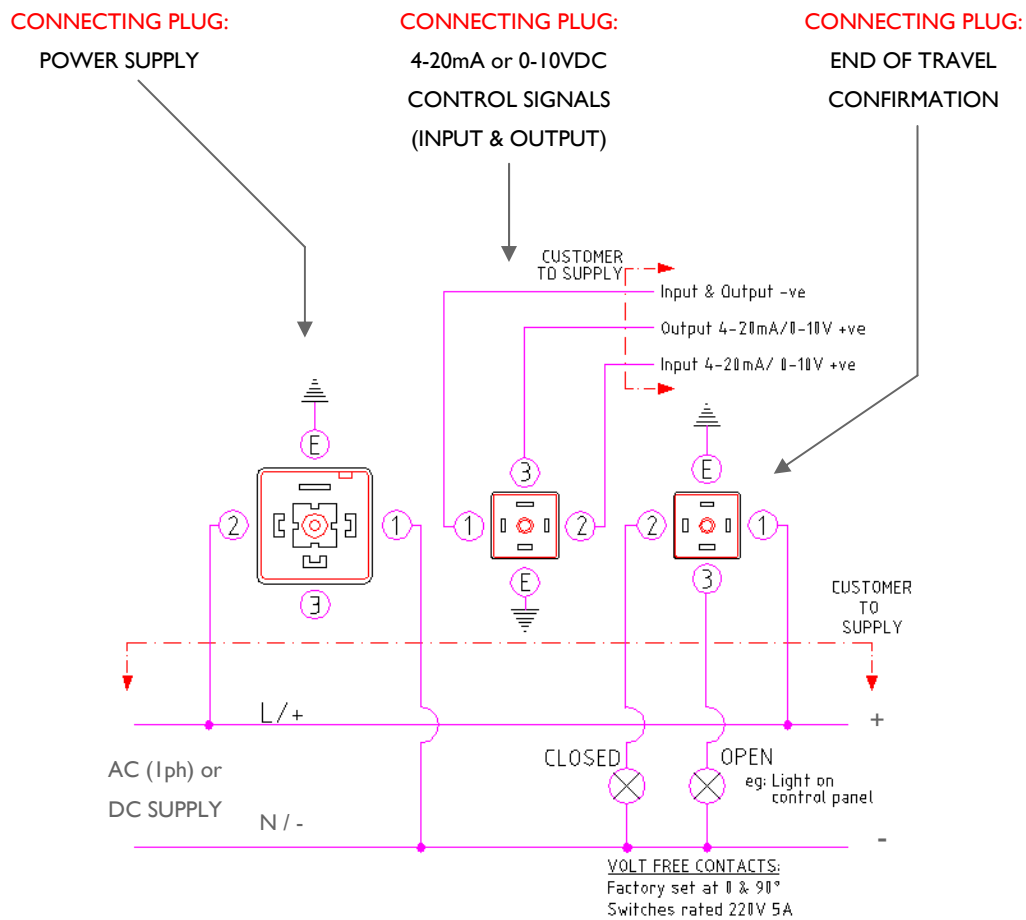
Model **J3** Wiring Diagram - AC or DC



Doc: J3/STD.WD/01

Jan 2008

AC (1ph) OR DC SUPPLY - WIRING FOR MODULATING ACTUATORS



Above wiring showing same supply as motor is only a suggestion.

NB: READ INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS BEFORE CONNECTING.

FUNCTION: MODULATING VERSION

Power open, power close - actuator movement controlled by input signal (4-20mA or 0-10VDC)
Standard operation: 4mA or 0V = actuator closed, 20mA or 10V = actuator open (can be reversed)
Standard operation: Actuator closes on loss of control signal, stays put on loss of mains power
Output signal (in same format as supply signal) provided as standard.



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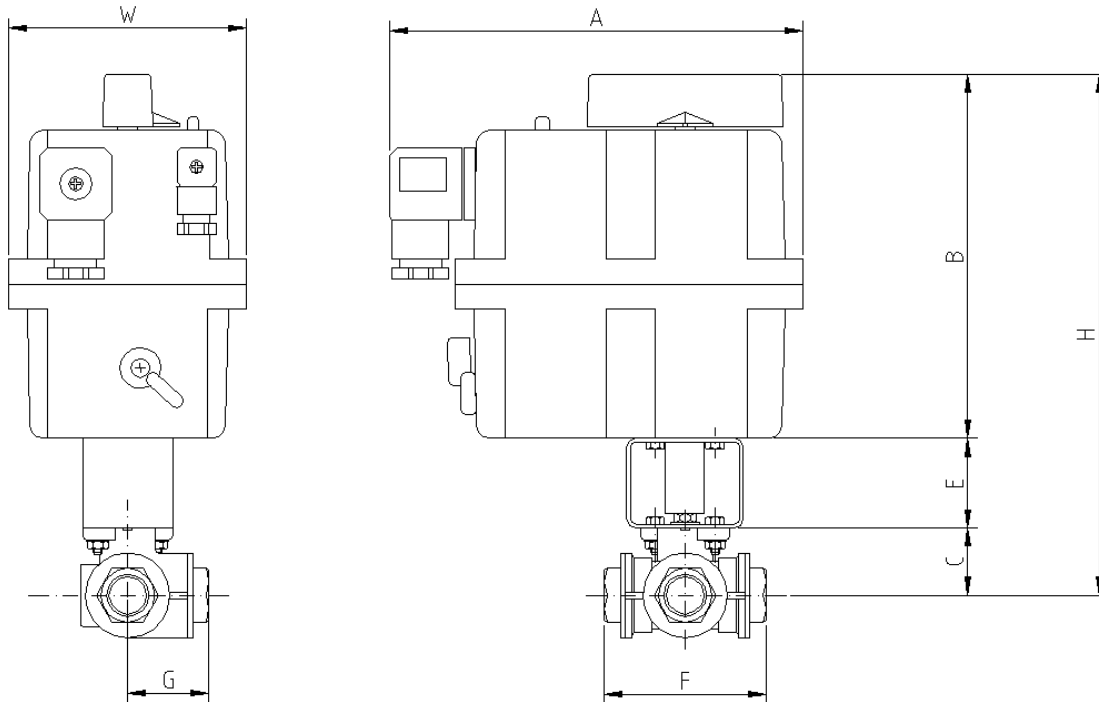
DIMENSIONS



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Electrically operated 3 way brass ball valve with kit- Dimensions (to nearest mm)



Dimensions remain unchanged for all versions (on-off, failsafe & modulating)

	Model	A	B	C	E	F	G	H	W	Kilos	Kv	PN
1/4"	20	177	149	31	50	67	34	230	110	2.3	2.8	30
3/8"	20	177	149	31	50	67	34	230	110	2.3	3.0	30
1/2"	20	177	149	33	50	77	39	232	110	3.9	3.9	30
3/4"	20	177	149	42	50	87	44	241	110	2.8	7.9	30
1"	20	177	149	47	50	105	53	246	110	3.3	13.0	16
1 1/4"	20	177	149	60	50	123	61	259	110	4.5	20.7	10
1 1/2"	35	177	171	74	50	139	69	295	110	6.8	38.7	10
2"	55	177	196	85	50	166	83	331	110	11.1	54.0	10

Kv is in m³/hr, based on water at ambient temperature with a 1 bar pressure drop across the valve

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