



# Model **J3-1310**



Doc: J3/1310/01

Nov 2007

## Air operated 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
<b>J3-1313</b>	Standard power to open - power to close - Stays put on mains failure
<b>J3-1314</b>	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
<b>J3-1315</b>	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

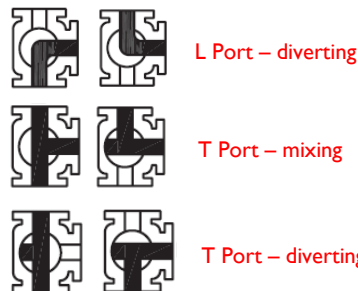
CE marked

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 DIAGRAMS

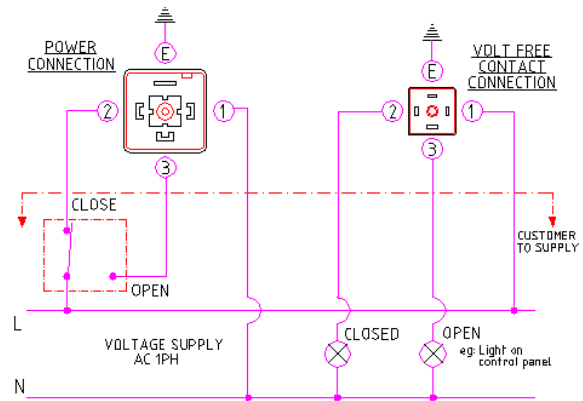


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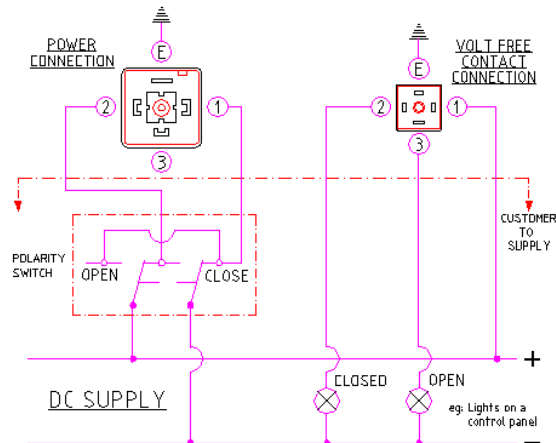
### AC (1PH) WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- Type **J3-xxx3** Standard on-off function.  
Power open, power close.  
Stays put on mains power failure.
- Type **J3-xxx4** On-off failsafe function.  
Power open, power close, but fails to pre-set position on mains power failure.  
Closed = Normally closed  
Open = Normally open



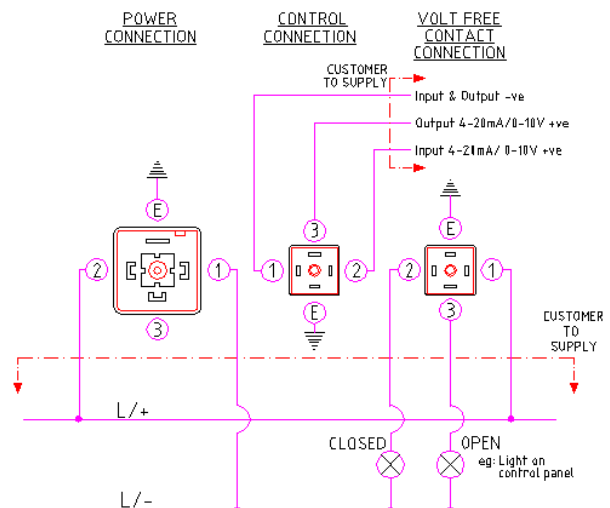
### DC WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- Type **J3-xxx3** Standard on-off function.  
Power open, power close.  
Stays put on mains power failure.
- Type **J3-xxx4** On-off failsafe function  
Power open, power close, but fails to pre-set position on mains power failure.  
Closed = Normally closed  
Open = Normally open



### AC (1PH) OR DC WIRING FOR MODULATING ACTUATORS

- Type **J3-xxx5** Modulating function .  
4-20mA or 0-10VDC control signal.  
Closes on loss of control signal.  
Stays put on mains power failure.  
Output signal as standard.





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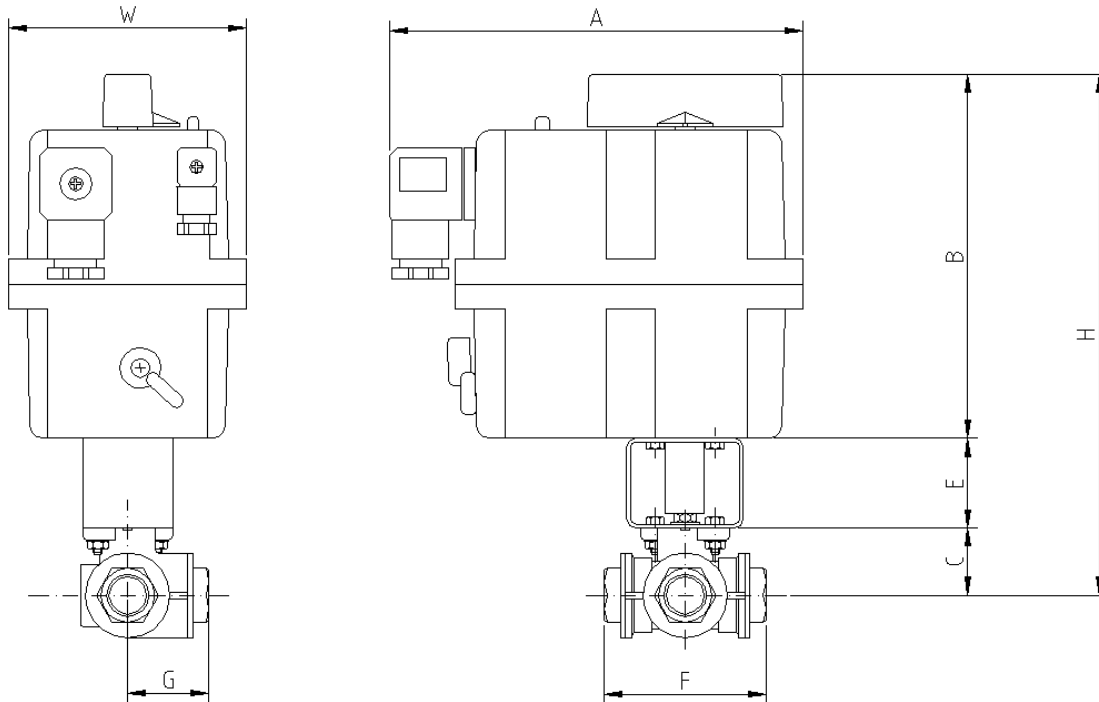
## DIMENSIONS



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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 m<sup>3</sup>/hr, based on water at ambient temperature with a 1 bar pressure drop across the valve

Subject to alteration without notice. Uncontrolled copy, not subject to automatic updates



# Valve Data Sheet



Doc: BBV3W/02

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## Full bore nickel plated 3 way brass direct mount ball valve



3 Way ball valves – flow patterns:



L Port – diverting



T Port – mixing



T Port – diverting

### Specifications:

Construction	3 Way full bore direct mount ball valve
Size Range (Full)	1/4" to 2" BSP
Pressure Rating	30 Bar 1/4" - 3/4", 16 Bar 1", rest 10 Bar
Valve Body Material	OT58 Nickel plated brass
Trim Material	OT58 Chrome plated brass
Seat Material	4 x PTFE
Seal Material (Options)	Viton
Inspection & Test	Manufacturer's own
Standards	ISO5211, DIN3337
Certification	Certificate of Conformity
Temperature Range	-20 to +160C

### Approvals:

Approved ?



PED/97/23/EC



ATEX 94/9/EC  
II 2 GD



API 607 4th Ed'n /  
BS6755 Pt 2



TA-Luft



### Dimensions:

SIZE DN	BORE	n	R	h	L	m	ISO5211
1/4"	8	9	120	63	67	34	F03
3/8"	10	9	120	63	67	34	F03
1/2"	15	9	120	64	77	39	F03
3/4"	20	11	170	75	87	44	F05
1"	25	11	170	80	105	53	F05
1 1/4"	32	11	170	93	123	61	F05
1 1/2"	40	14	230	114	139	70	F07
2"	50	14	230	124	166	83	F07

