



# Model **J3-1100**



Doc: J3/1100/01

Nov 2007

## Electrically operated 2 way brass ball valve

Full bore 2 way nickel plated brass ball valve, designed for automation with integrally cast ISO5211 actuator mounting platform fitted with direct mounted **J3** electric actuator. Supplied assembled and dry bench function tested. Size range from 1/2" to 2". Valves are WRAS approved for use on potable water.

Type	Function
<b>J3-1103</b>	Standard power to open - power to close - Stays put on mains failure
<b>J3-1104</b>	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
<b>J3-1105</b>	Modulating DPS - Digital Positioning System - Controlled by 4-20mA or 0-10V signal

### Applications:

Water, oil 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 assembly is +70C. If the intended duty is a higher temperature than this, select model **J3-1110** which has a mounting kit between the valve and actuator which uses air cooling to dissipate the heat away from the actuator (maximum +130C).

### Valve Specifications:

Body	Nickel plated brass
Ball	Nickel plated brass
Seats	PTFE
Pressure rating	UTI 2" 40 bar
Valve temp limits	-20 to +150°C
Actuator temp limits	-20 to + 70°C

### J3 Actuator status light basic functions:

Constantly lit LED	The LED flashes with 2 blinks	The LED flashes on - off
If the actuator is operating correctly with no faults, the LED shows a constantly lit light.	If the actuator has been left in 'manual' mode, the actuator's motor runs but doesn't drive the output shaft. After a pre-set time, the actuator knows that as the torque limiter has not activated and that the motor is running, it is in 'manual'.	When the actuator senses an impending valve jam, the electronic torque limiter is activated and on activation, repeatedly flashes the LED on and off.



### 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





# Model J3-1100

## WIRING DIAGRAMS

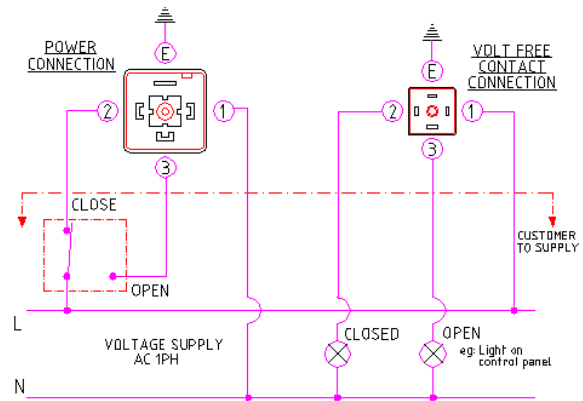


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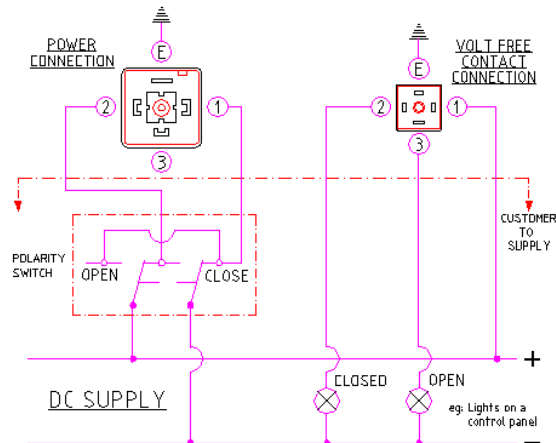
### AC (1PH) WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- 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



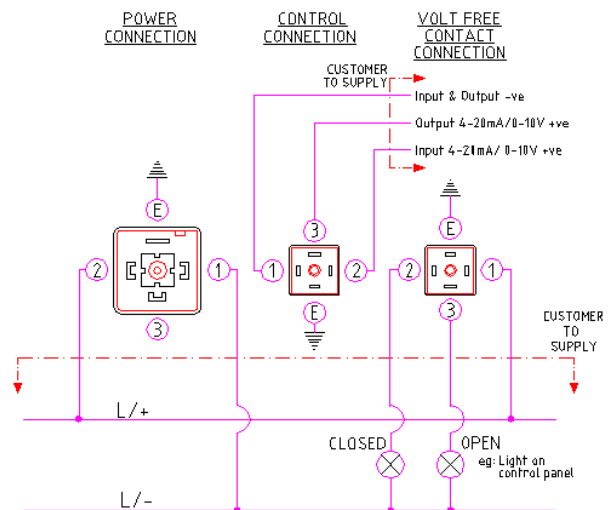
### DC WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- 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.





# Model **J3-I 100**

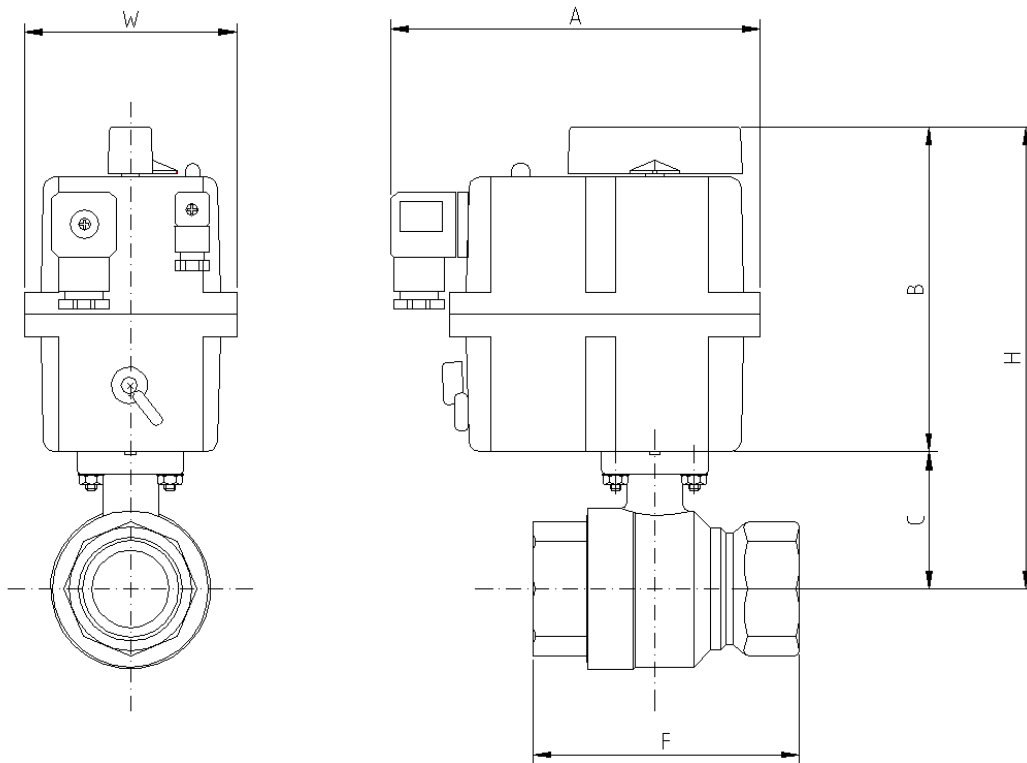
## DIMENSIONS



Doc: J3/I 100/01

Nov 2007

### Electrically operated 2 way brass ball valve - Dimensions (to nearest mm)



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

	Model	A	B	C	F	H	W	Kilos	Kv
1/2"	20	177	149	31	59	180	110	1.8	16.3
3/4"	20	177	149	37	69	186	110	1.9	29.5
1"	20	177	149	41	83	190	110	2.2	43.0
1 1/4"	20	177	149	47	94	196	110	2.5	89.0
1 1/2"	20	177	149	58	102	207	110	2.9	230.0
2"	20	177	149	66	124	215	110	3.7	265.0

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: BBV450/02

Nov 2006

## Full bore nickel plated brass direct mount ball valve



### Specifications:

Construction	2 Pce Full bore direct mount ball valve
Size Range (Full)	1/2" to 2" BSP
Pressure Rating	40 Bar
Valve Body Material	OT58 Nickel plated brass
Trim Material	OT58 Chrome plated brass
Seat Material	PTFE
Seal Material (Options)	Flouride & NBR rubber
Inspection & Test	Manufacturer's own
Standards	ISO521 I, DIN3337
Certification	Certificate of Conformity
Temperature Range	-20 to +150C

### 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	Ø	A	B	C	F	H	S	Nm
1/2"	15	7	9	F03	17	31	59	1.0
3/4"	20	8	9	F03	18	37	69	1.2
1"	25	8	9	F03	22	41	83	1.5
1 1/4"	32	8	9	F03	24	46.5	94	2.0
1 1/2"	40	14.5	14	F05	24	58	102	10.0
2"	50	14.5	14	F05	28	65.5	124	14.0

