



Model **J3**-I300



Doc: J3/I300/01

Nov 2007

Electrically operated 3 way brass ball valve

Full bore 3 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. Full size range from 1/4" to 2". Available in both 'L' and 'T' port.

Type	Function
J3-I303	Standard power to open - power to close - Stays put on mains failure
J3-I304	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
J3-I305	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.

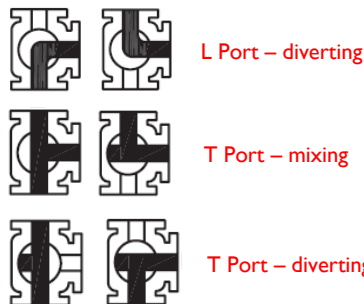
NOT recommended for use on steam.

Maximum working temperature of assembly is +70C. If the intended duty is a higher temperature than this, select model **J3**-I310 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 3/4" 30 bar, rest 10 bar
Valve temp limits	-20 to +160°C
Actuator temp limits	-20 to + 70°C

3 Way ball valves –flow patterns:



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

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 must be 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.





Model J3-I300

WIRING DIAGRAMS

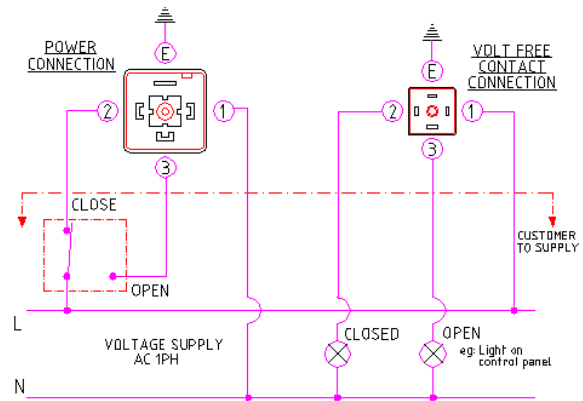


Doc: J3/I300/01

Nov 2007

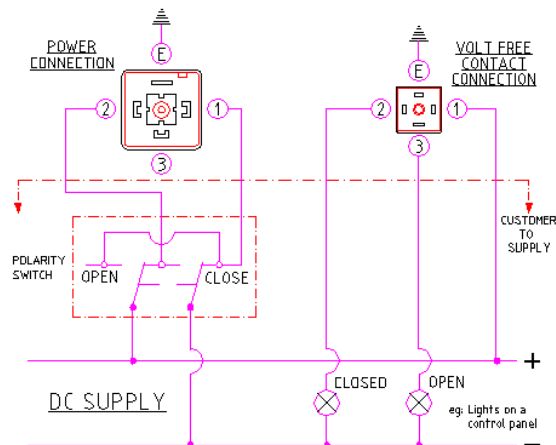
AC (1PH) WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- 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



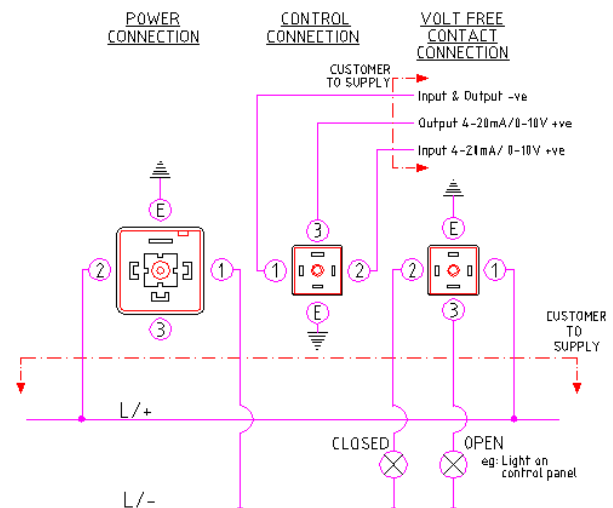
DC WIRING FOR ON-OFF & FAILSAFE ACTUATORS

- 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**-I300

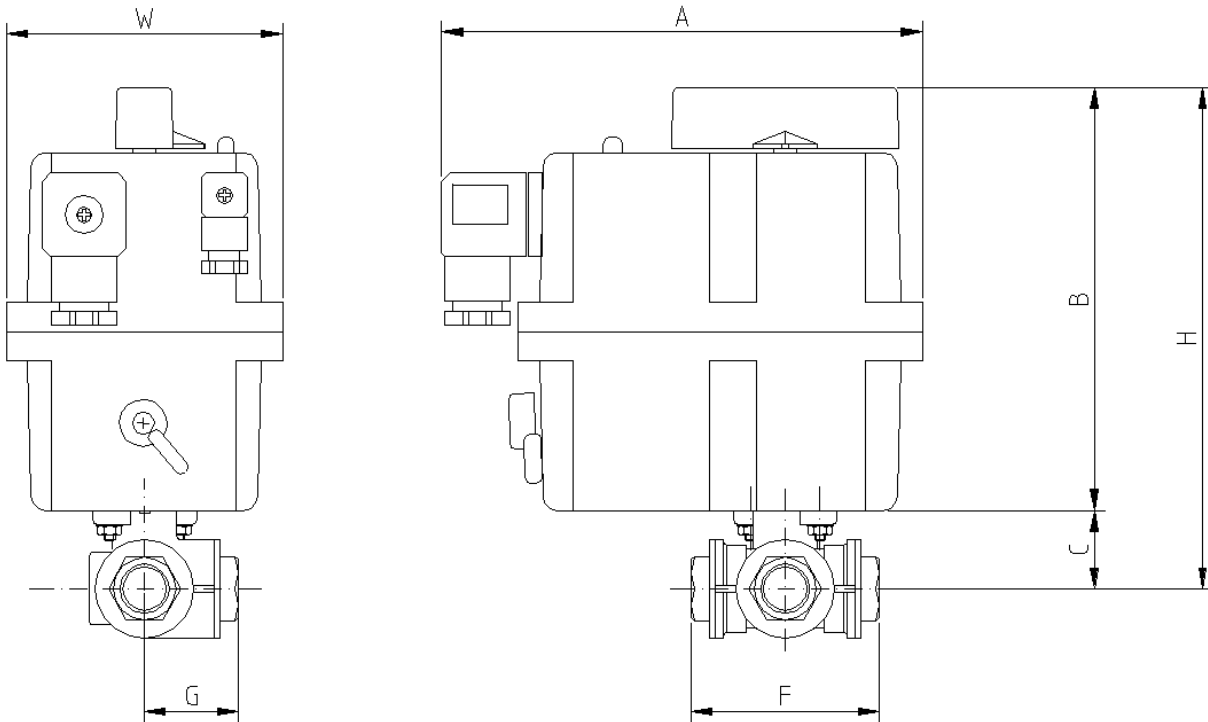
DIMENSIONS



Doc: J3/I300/01

Nov 2007

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



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

	Model	A	B	C	F	G	H	W	Kilos	Kv	PN
1/4"	20	177	149	31	67	34	180	110	2.1	2.8	30
3/8"	20	177	149	31	67	34	180	110	2.1	3.0	30
1/2"	20	177	149	33	77	39	182	110	3.7	3.9	30
3/4"	20	177	149	42	87	44	191	110	2.6	7.9	30
1"	20	177	149	47	105	53	196	110	3.1	13.0	16
1 1/4"	20	177	149	60	123	61	209	110	4.3	20.7	10
1 1/2"	35	177	171	74	139	69	245	110	6.6	38.7	10
2"	55	177	196	85	166	83	281	110	10.8	54.0	10

Kv is in m³/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

Nov 2007

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

