



# Model **J3-4400**



Doc: J3/4400/01

Nov 2007

## Electrically operated 2 way 316SS ASA150 ball valve, non fire safe.

Full bore 2 way 316 stainless steel ball valve, flanged ASA150, 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 6".

Type	Function
<b>J3-4403</b>	Standard power to open - power to close - Stays put on mains failure
<b>J3-4404</b>	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
<b>J3-4405</b>	Modulating DPS - Digital Positioning System



### Applications:

Water, oil and many corrosive medias, 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.

Maximum working temperature of assembly is +70C. If the intended duty is a higher temperature than this, select model **J3-4410** which has a mounting kit between the valve and actuator which uses air cooling to dissipate the heat away from the actuator (standard kit: maximum +130C).

### Valve Specifications:

Body	CF8M Cast 316SS
Ball	CF8M Cast 316SS
Seats	RTFE
Pressure rating	ASA150
Valve temp limits	-20 to +200°C
Actuator temp limits	-20 to + 70°C



### 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.



### 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 Reseat

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**-4400

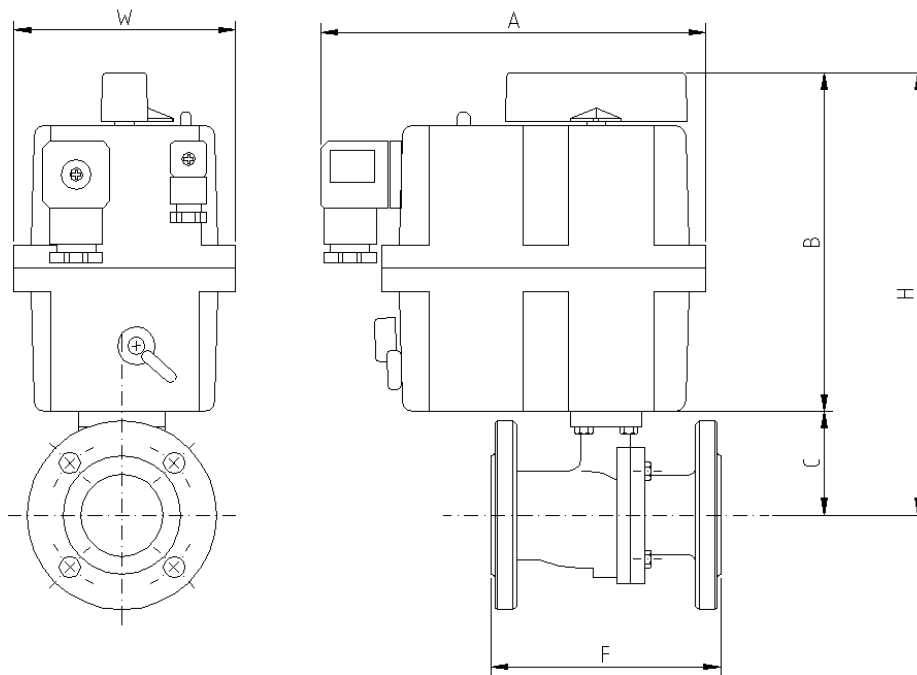
## DIMENSIONS



Doc: J3/4400/01

Nov 2007

Electrically operated ASA150 stainless non-firesafe ball valve - Dimensions (to nearest mm)



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

	Model	A	B	C	F	H	W	Kilos
1/2"	20	177	149	48	108	157	110	3.3
3/4"	20	177	149	53	117	202	110	3.7
1"	20	177	149	59	127	208	110	4.4
1 1/4"	20	177	149	71	140	220	110	7.9
1 1/2"	55	177	196	76	165	272	110	8.4
2"	55	177	196	85	178	281	110	11.2
2 1/2"	85	177	196	94	190	290	128	16.3
3"	<b>J2</b> -140	235	254	103	203	357	214	24.7
4"	<b>J2</b> -140	235	254	132	229	386	214	36.2



# Model J3

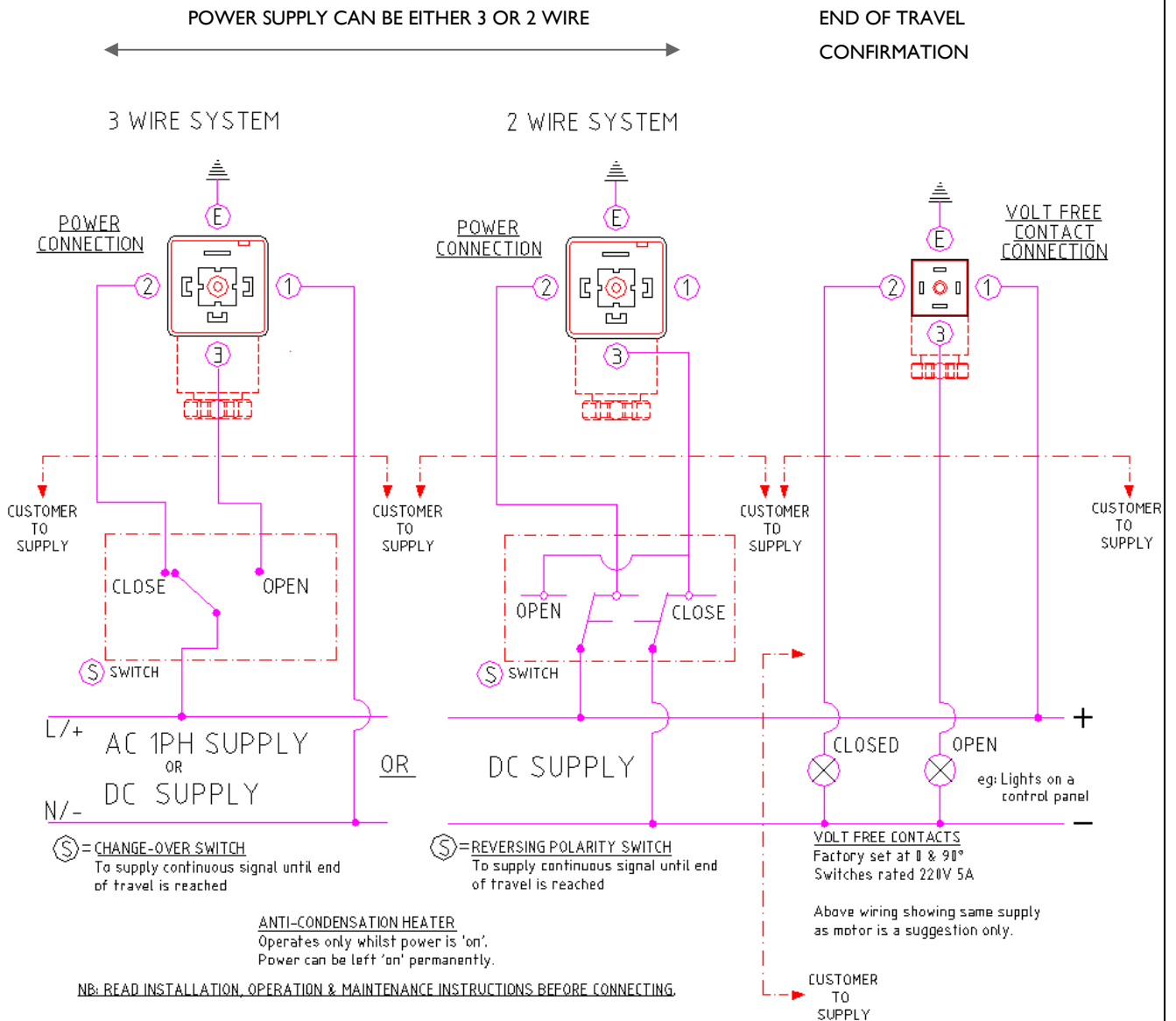
## Wiring Diagram - AC or DC



Doc: J3/STD.WD/01

Jan 2008

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



#### FUNCTION: ON-OFF VERSION

Power open, power close  
Stays put on mains power failure

#### FUNCTION: FAILSAFE VERSION

Power open, power close - trickle charges battery system in either open or closed position  
Actuator sent by battery power to pre-set failsafe position on power failure  
Actuator returns to pre-failure position on power resumption.  
Failsafe can be either NC (normally closed) or NO (normally open)



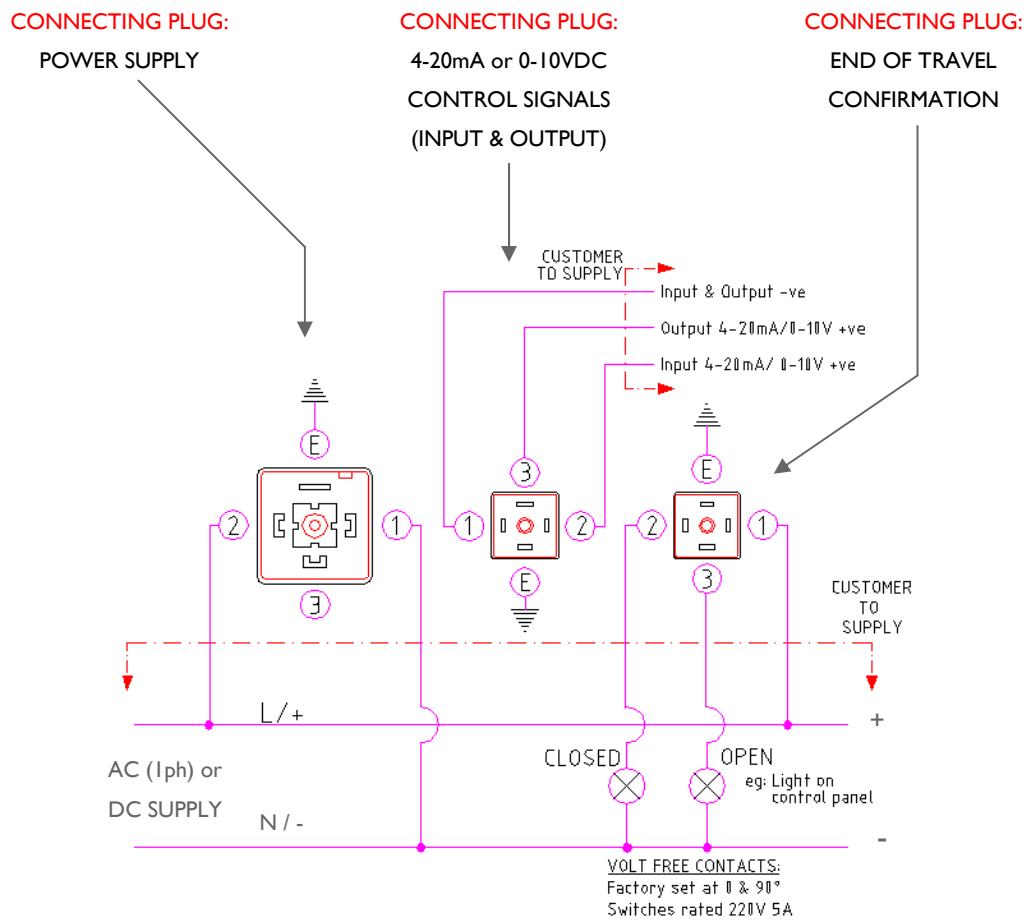
# Model **J3** Wiring Diagram - AC or DC



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.



# Valve Data Sheet



Doc: BVSS-M94D-ASA/01

Nov 2007

## Full bore direct mount ASA I 50 flanged stainless steel ball valve



### Specifications:

Construction	2 Pce full bore direct mount ball valve
Size Range (Full)	1/2" to 6" Flanged ASA I 50
Pressure Rating	ANSI Class 150
Valve Body Material	ASTM A351 CF8M
Trim Material	ASTM A351 CF8M
Seat Material	PTFE
Seal Material (Options)	PTFE
Inspection & Test	API 598 BS6755 Pt 1 API 607
Standards	ANSI B16.34, ANSI 16.25, ANSI B1.20, API 6D ANSI B16.10, ISO5211 DIN 259, DIN 2999, DIN3337.
Certification	EN 10204 3.1b on request
Temperature Range	-20 to +190C

### Approvals:

Approved ?



PED/97/23/EC



ATEX 94/9/EC  
II 2 GD



API 607 4th Ed'n /  
BS6755 Pt 2



TA-Luft



### DIMENSIONS (mm)/ ASME150 (1/2" to 4")

SIZE	A	F	E	L	K	M	G	J	CLASS 150 FLANGE DIMENSIONS								
									D	C	H	N	t	g	B	O	f
1/2"	15	68.6	144.8	108	6.6	42	M5	10	89	60.5	16	4	11.5	35	13.9	10.7	1.6
3/4"	20	76.2	144.8	117	6.6	42	M5	10	98	70	16	4	11.5	43	14.2	10.9	1.6
1"	25	88.9	175.3	127	9.7	50	M6	14	108	79.5	16	4	11.5	51	21.6	16.8	1.6
1-1/4"	32	88.9	175.3	140	9.7	50	M6	14	117	89	16	4	12.7	64	21.3	16.5	1.6
1-1/2"	38	106.7	233.7	165	9.7	70	M8	18	127	98.5	16	4	14.3	73	24.9	18.0	1.6
2"	50	119.4	233.7	178	9.7	70	M8	18	152	120.5	19	4	15.9	92	23.9	19.6	1.6
2-1/2"	65	137.2	305.0	190	12	102	M10	20	178	139.5	19	4	17.8	105	22.9	16.3	1.6
3"	80	149.9	305.0	203	12	102	M10	20	190	152.5	19	4	19.1	127	21.9	16.3	1.6
4"	100	170.2	305.0	229	15	102	M10	24	229	190.5	19	8	24.0	157	29.7	24.4	1.6

