



# Model **J3-2310**



Doc: J3/2310/01

Nov 2007

## Electrically operated 3 way 316SS ball valve with kit

Reduced bore 3 way 316 stainless steel ball valve, designed for automation with integrally cast ISO5211 actuator mounting platform fitted via stainless mounting kit with **J3** electric actuator. Supplied assembled and dry bench function tested. Full size range from 1/4" to 2". Available in 'L' or 'T' port.



Type	Function
<b>J3-2313</b>	Standard power to open - power to close - Stays put on mains failure
<b>J3-2314</b>	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
<b>J3-2315</b>	Modulating DPS - Digital Positioning System

### Applications:

Water, oil and many corrosive medias, subject to compatibility with wetted parts in contact with media.

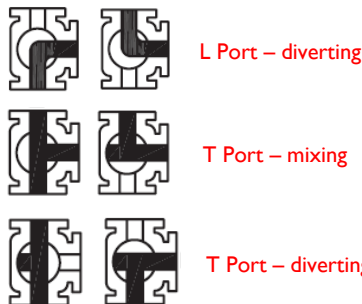
Actuators sized on a maximum differential pressure of 10 bar wet service, if the intended duty is above this differential, or dry (air or gas) call to check actuator sizing as a larger output actuator may be required.

Maximum working temperature of assembly is +130C. If the intended duty is at a lower temperature than +70C, select model **J3-2303** which has a direct mounted actuator and offers a more compact and cost effective.

### Valve Specifications:

Body	CF8M Cast 316SS
Ball	CF8M Cast 316SS
Seats	RTFE
Pressure rating	UT1 2" 1000psi CWP
Valve temp limits	-20 to +200°C
Actuator temp limits	-20 to + 70°C

### 3 Way ball valves – flow patterns:



### 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 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



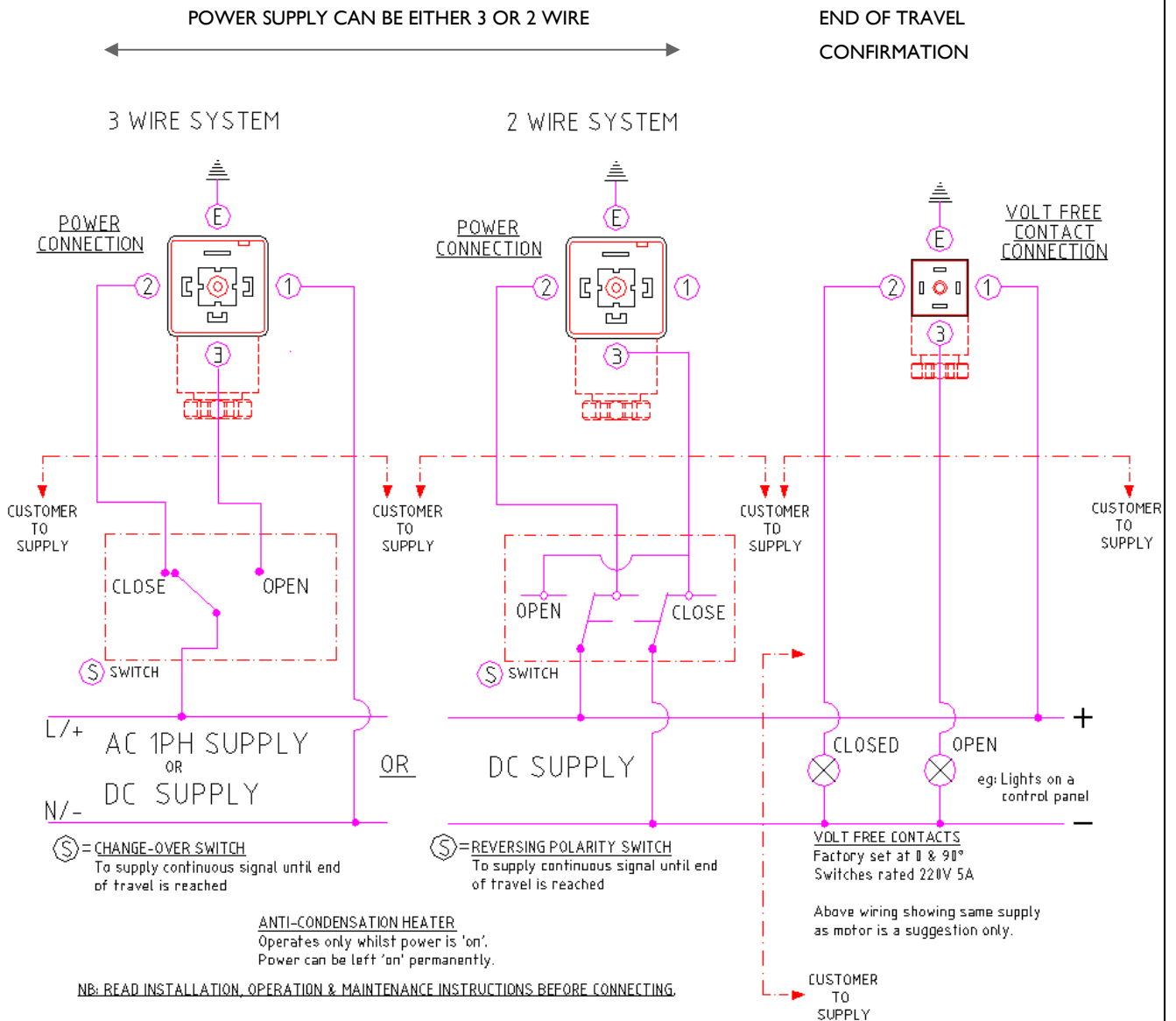
# Model J3 Wiring Diagram - AC or DC



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

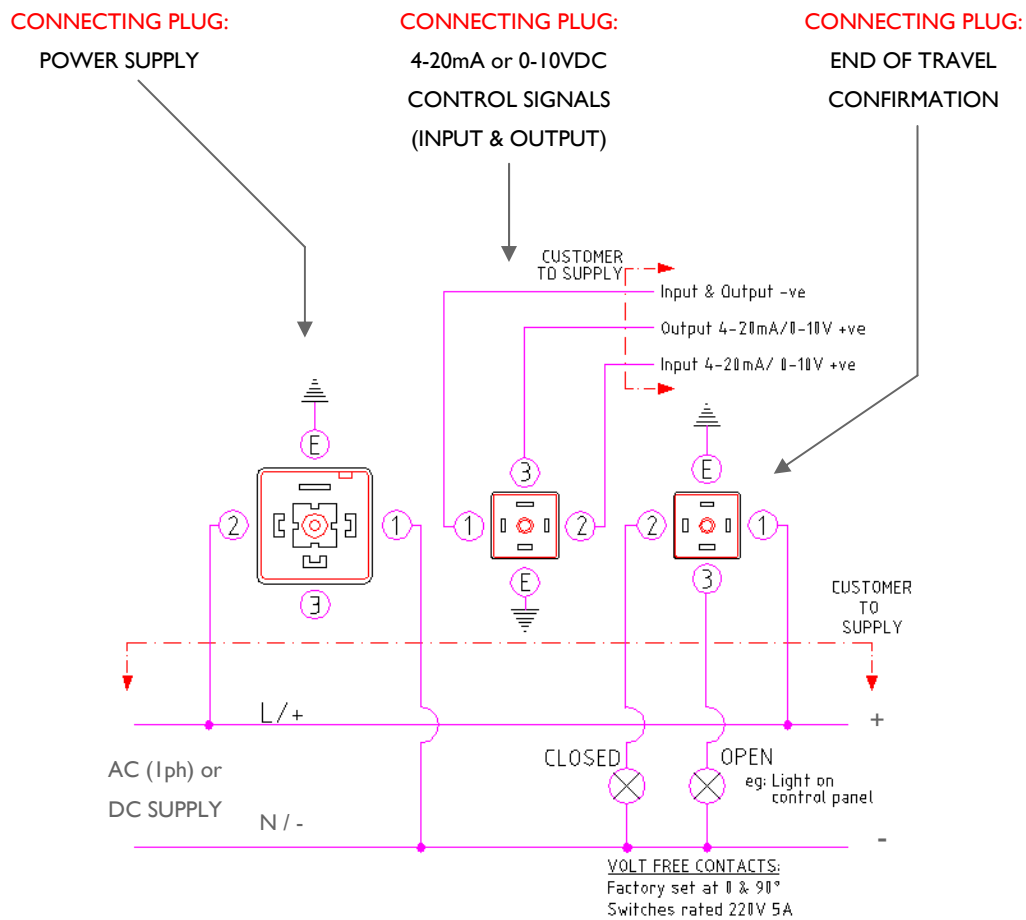
## Wiring Diagram - AC or DC



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.



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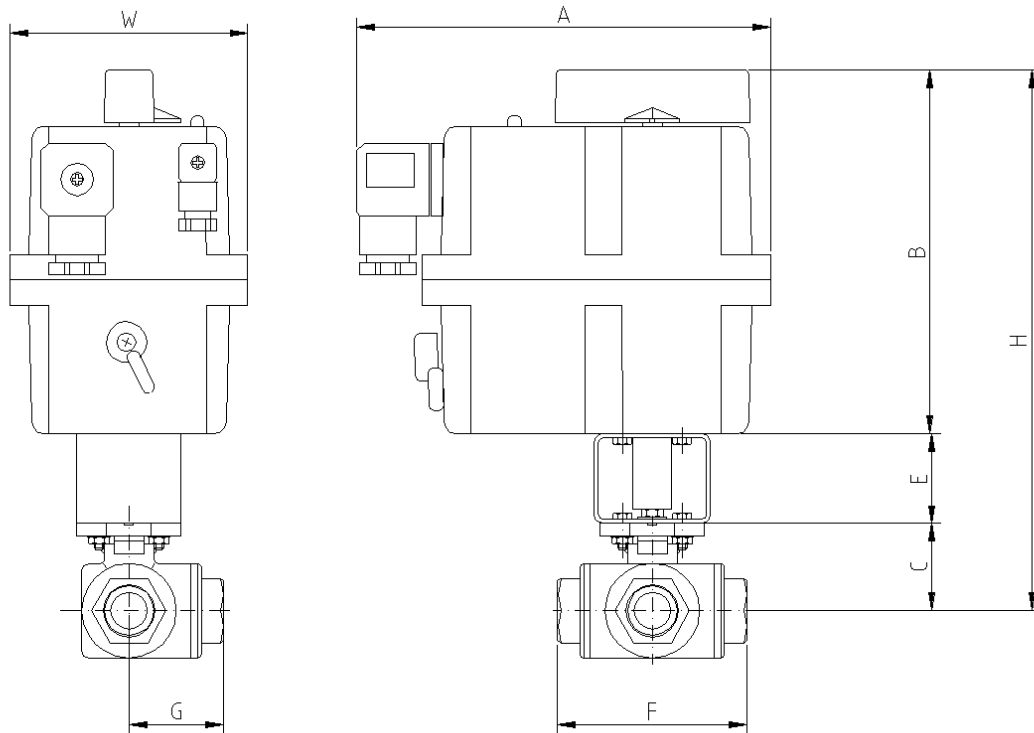
## DIMENSIONS



Doc: J3/2310/01

Nov 2007

### Electrically operated 3 way stainless steel ball valve and 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
1/4"	20	177	149	39	50	72	36	238	110	2.4
3/8"	20	177	149	39	50	72	36	238	110	2.4
1/2"	20	177	149	41	50	83	42	240	110	2.6
3/4"	20	177	149	49	50	99	50	248	110	3.2
1"	20	177	149	55	50	112	56	254	110	3.9
1 1/4"	35	177	171	63	50	125	63	284	110	5.3
1 1/2"	55	177	196	74	50	149	75	320	110	7.5
2"	55	177	196	93	50	174	87	339	110	11.7

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: SBV-M39/02

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## Reduced bore direct mount 3 way stainless steel ball valve



3 Way ball valves – flow patterns:



L Port – diverting



T Port – mixing



T Port – diverting

### Specifications:

Construction	3 Way reduced bore direct mount ball valve
Size Range (Full)	1/4" to 2" BSP
Pressure Rating	1000 psi max
Valve Body Material	ASTM A351CF8M
Trim Material	ASTM A351CF8M
Seat Material	RTFE x 4
Seal Material (Options)	PTFE
Inspection & Test	API 598 BS6755 Pt 1
Standards	ISO5211 DIN 259, DIN3337.
Certification	Certificate of Conformity
Temperature Range	-20 to +200C

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	B	E	H	L	W	ISO5211
1/2"	12	9	130	62	72	36	F03/04
3/4"	15	9	130	64	83	42	F03/04
1"	20	11	165	82	99	50	F04/05
1 1/4"	25	11	165	89	112	56	F04/05
1 1/2"	32	14	205	98	125	63	F05/07
2"	38	14	205	108	149	75	F05/07

