



Model **J3-2400**



Doc: J3/2400/01

Nov 2007

Electrically operated heavy duty 3 pce SS ball valve

Reduced bore 3 piece heavy duty stainless steel ball valve, designed for automation with integrally cast ISO5211 actuator mounting platform fitted with direct mounted **J3** electric actuator. Encapsulated bolt design UTI 2". Supplied assembled and dry bench function tested. Size range from 1/2" to 2".

Type	Function
J3-2403	Standard power to open - power to close - Stays put on mains failure
J3-2404	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
J3-2405	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 **J3-2410** 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	316 Stainless steel
Ball	316 Stainless steel
Seats	Carbon filled PTFE
Pressure rating	UTI 2" 133 bar, rest 64 bar
Valve temp limits	-20 to +210°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 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

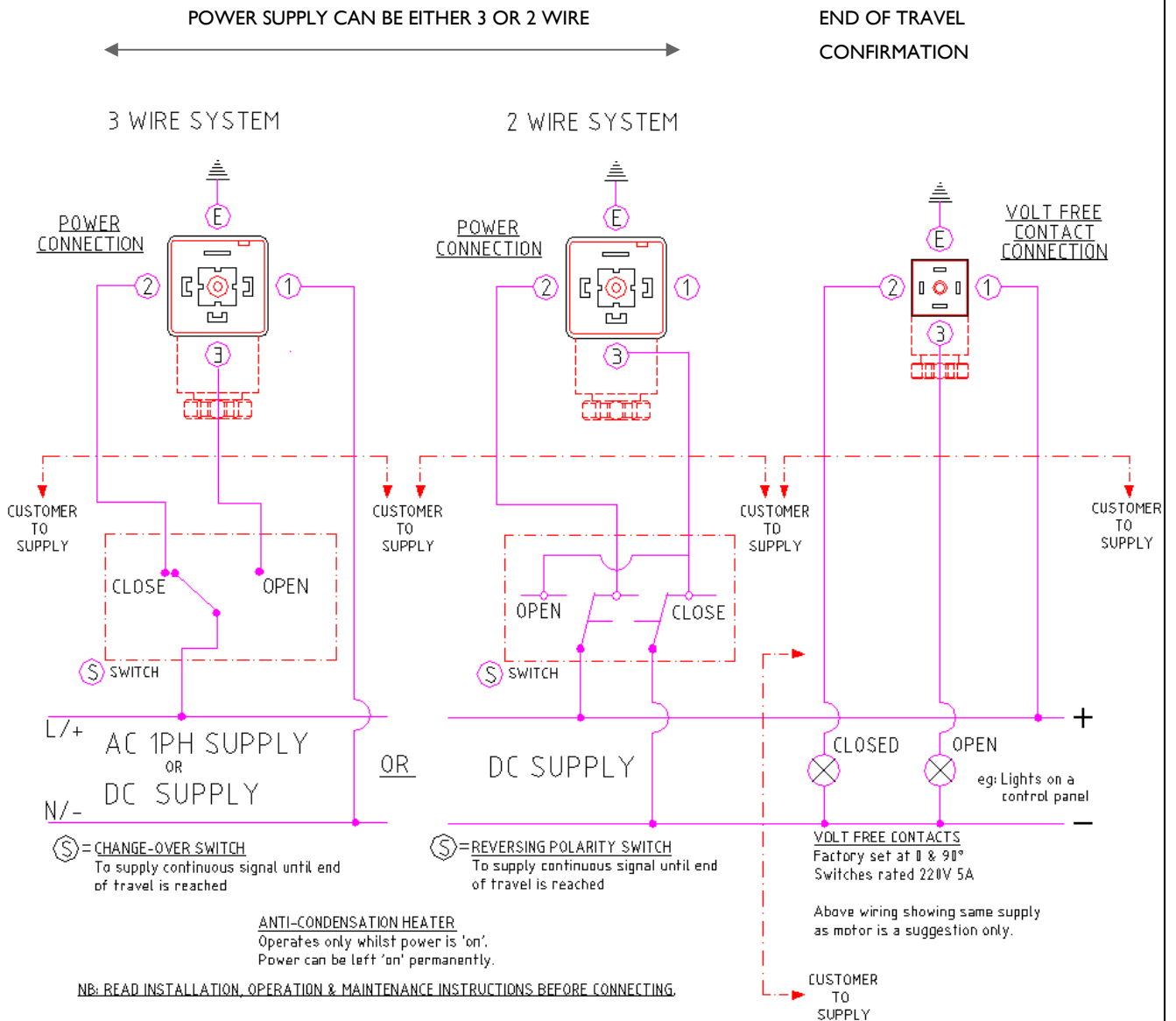
Wiring Diagram - AC or DC



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

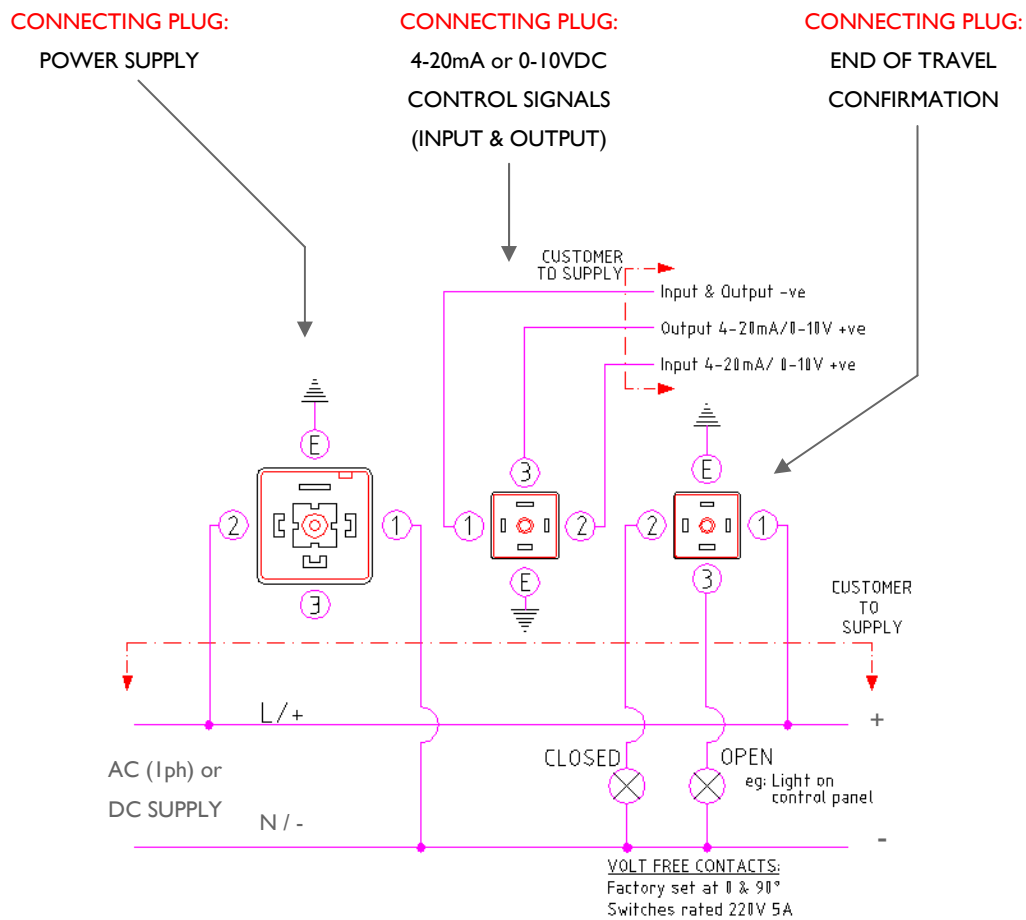
Wiring Diagram - AC or DC



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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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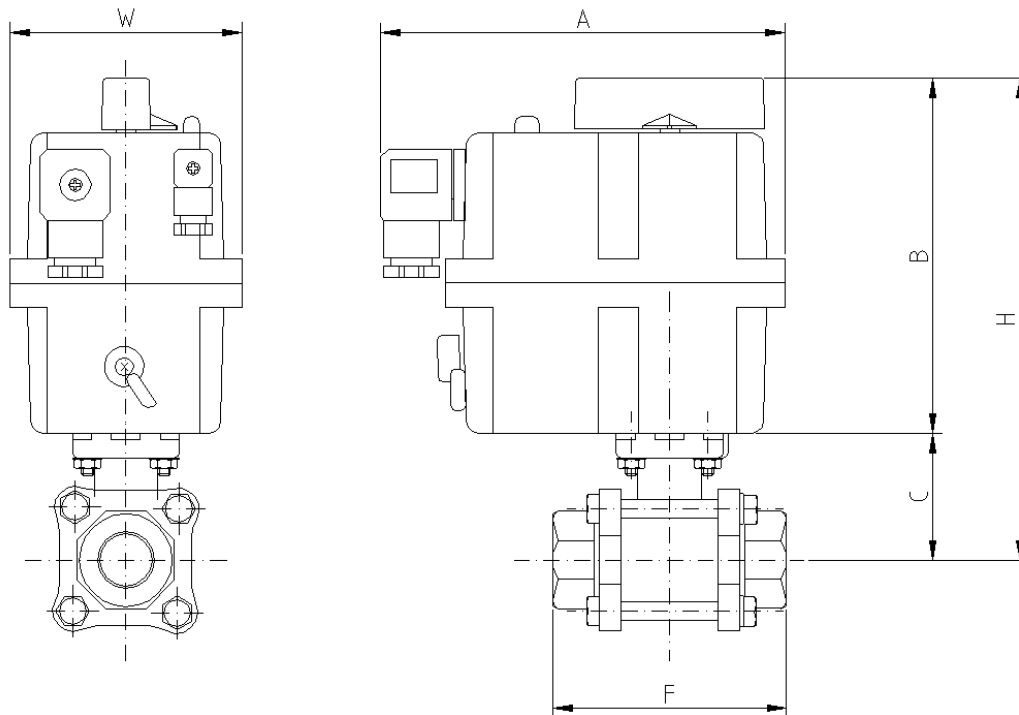
DIMENSIONS



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Electrically operated heavy duty stainless steel ball valve - Dimensions (to nearest mm)



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

	Model	A	B	C	F	H	W	Kilos	Bore
1/2"	20	177	149	43	75	192	110	2.3	12.6
3/4"	20	177	149	43	73	192	110	2.8	15.0
1"	20	177	149	47	85	196	110	3.5	20.0
1 1/4"	20	177	149	59	105	208	110	4.3	25.0
1 1/2"	35	177	171	63	111	212	110	6.1	32.0
2"	35	177	171	79	127	228	110	7.1	38.0



Valve Data Sheet



Doc SBV-M88/03

Nov 2007

Direct mount 3 pce heavy duty stainless steel ball valve



Specifications:

Construction	3 Pce Reduced bore direct mount ball valve
Size Range (Full)	1/4" to 2" BSP
Pressure Rating	3000 psi max
Valve Body Material	ASTM A351CF8M
Trim Material	ASTM A351CF8M
Seat Material	Carbon filled PTFE
Seal Material (Options)	PTFE
Inspection & Test	API 598 BS6755 Pt I
Standards	ANSI B16.34, ANSI I6.25, ANSI B1.20, API 6D ISO5211 DIN 259, DIN 2999, DIN3337. MSS SP25
Certification	EN 10204 3.1b on request
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 (mm)

H, B1 DIMENSIONS ± mm

SIZE	øA		B1		B2		øC		øD		ød1		ød2		E		F		øG		H		J		L		L1		L2		øM1		øM2		øX1		øX2		P		ISO5211		Wt(Kg)										
	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R											
1/4"	14.0		8.1		42.6		11.5		14.0		9.24		11.8		139		9.0		14.0		78.3		1.75		72.5						10		36		42		6		6		3		F03 & F04		0.88								
3/8"	17.6		8.1		42.6		12.6		17.5		12.53		13.6		139		9.0		17.5		78.3		1.75		72.5						10		36		42		6		6		3		F03 & F04		0.88								
1/2"	21.7		8.1		42.6		15.0		12.6		21.6		15.76		18.0		139		9.0		21.7		1.75		72.5		72.5				10		36		42		6		6		3		F03 & F04	F03 & F04	0.82 0.88								
3/4"	27.3		9.6		46.9		20.0		15.0		27.2		20.96		24.0		139		9.0		27.2		1.6		85.4		72.5		75		13		36		42		6		6		3		F03 & F04	F03 & F04	1.29 0.82								
1"	34.1		11.4		59.3		25.0		20.0		34		26.64		30.5		165		11.0		34.0		1.6		105.3		85.4		89.8		13		42		50		42		6		7		6		5		F04 & F05	F03 & F04	2.01 1.29				
1 1/4"	42.8		11.4		62.6		32.0		25.0		42.8		35.08		39.0		165		11.0		42.7		1.6		111		105.3		109.4		13		42		42		50		6		7		5		F04 & F05	F04 & F05	2.76 2.01						
1 1/2"	48.7		11.4		79.0		38.0		32.0		48.6		40.49		45.0		215		11.0		48.6		1.6		127.3		111		114.4		13		50		42		70		7.5		9		7		10		F05 & F07	F04 & F05	4.21 2.76				
2"	61.0		14.1		87.7		50.0		38.0		60.5		52.51		56.5		215		14.0		60.5		1.6		145		127.3		130		16		50		70		7.5		9		9		10		F05 & F07	F05 & F07	5.93 4.21						
2 1/2"	77		16.8		108.7		65.0		50.0		76.3		65.7		70.7		262		17		19		1.6		167.7		135.6		185		145		16		70		102		10		10		12		12		16		F07 & F10	F05 & F07	12 6.88		
3"	90		17.8		117.7		80.0		65.0		90		90		262		262		17		19		1.6		185		205		185		16		70		102		102		10		10		12		12		16		F07 & F10	F07 & F10	16.2 12		
4"	115.2		16.8		133.7		100.0		80.0		116		116		312		262		17		19		1.6		192.7		176.7		240		205		20		70		102		102		10		10		12		12		16		F07 & F10	F07 & F10	25.8 16.2

