

J3

Model J3-2100



Doc: J3/2100/01

Nov 2007

Electrically operated 2 way 316SS ball valve

Full bore 2 way 316 stainless steel 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 4".



Type	Function
J3-2103	Standard power to open - power to close - Stays put on mains failure
J3-2104	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
J3-2105	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 J3-2110 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	CF8M Cast 316SS
Ball	CF8M Cast 316SS
Seats	RTFE
Pressure rating	UTI 2" 1000psi CWP
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

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.

The LED flashes on/ off

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

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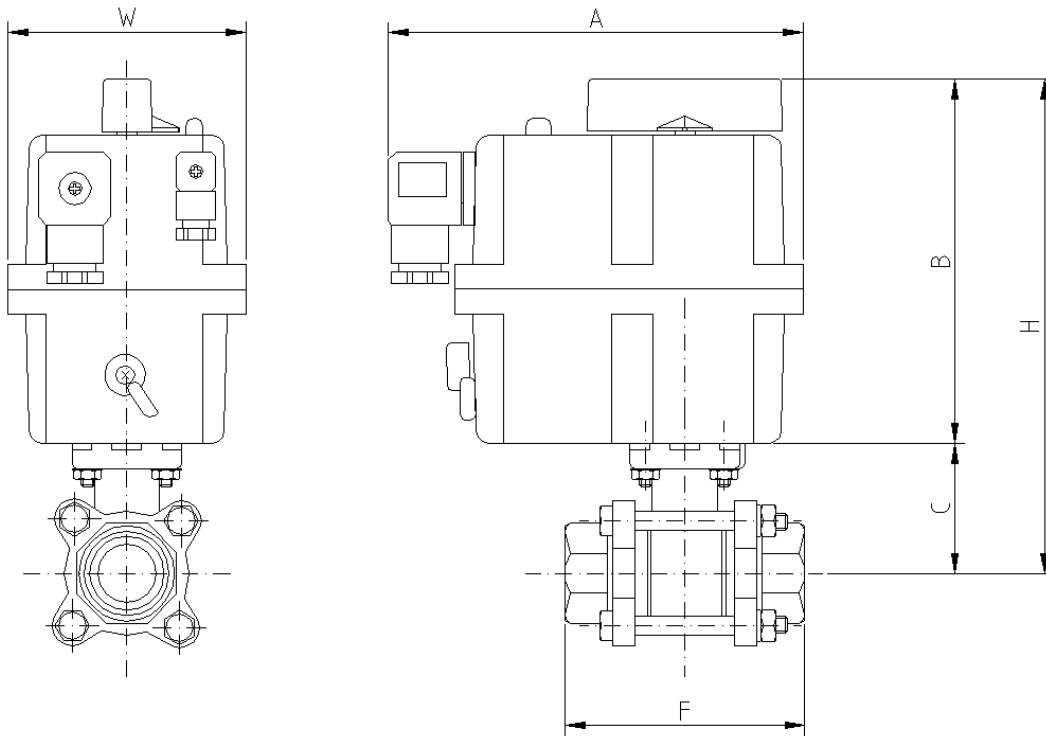
DIMENSIONS



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Electrically operated 3 pce 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	Kv
1/4"	20	177	149	42	64	191	110	2.1	6.8
3/8"	20	177	149	42	64	191	110	2.1	6.8
1/2"	20	177	149	42	66	191	110	2.2	12.8
3/4"	20	177	149	48	76	197	110	2.3	29.1
1"	20	177	149	57	86	206	110	2.8	47.8
1 1/4"	20	177	149	61	103	210	110	3.4	72.6
1 1/2"	35	177	171	78	119	249	110	5.0	106.8
2"	55	177	196	85	131	281	110	6.6	213.7
2 1/2"	85	177	196	109	164	305	128	11.0	273.3
3"	85	177	196	118	183	314	128	14.3	495.3
4"	J2-140	235	214	133	236	154	254	26.7	871.1

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



Model J3

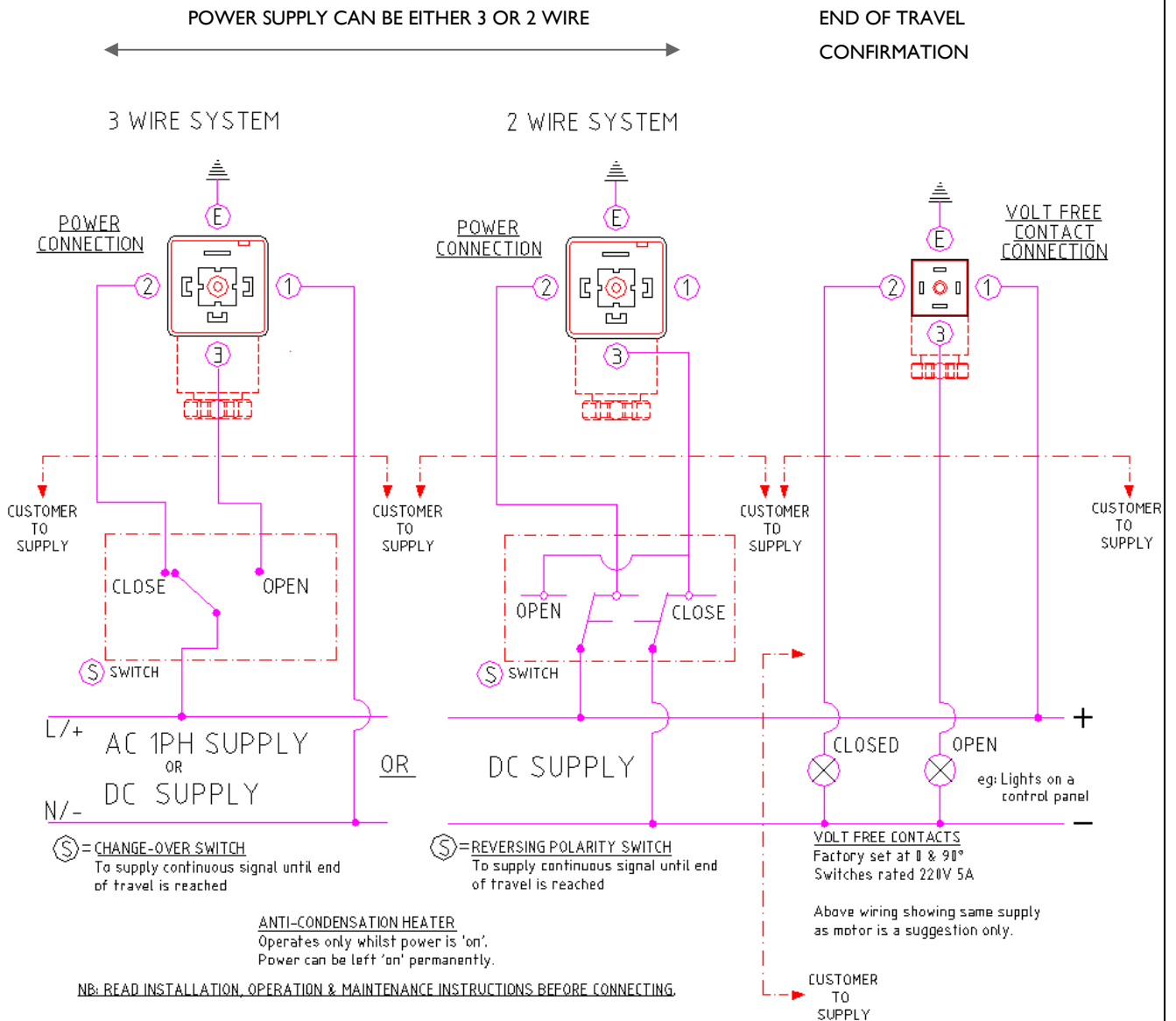
Wiring Diagram - AC or DC



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)



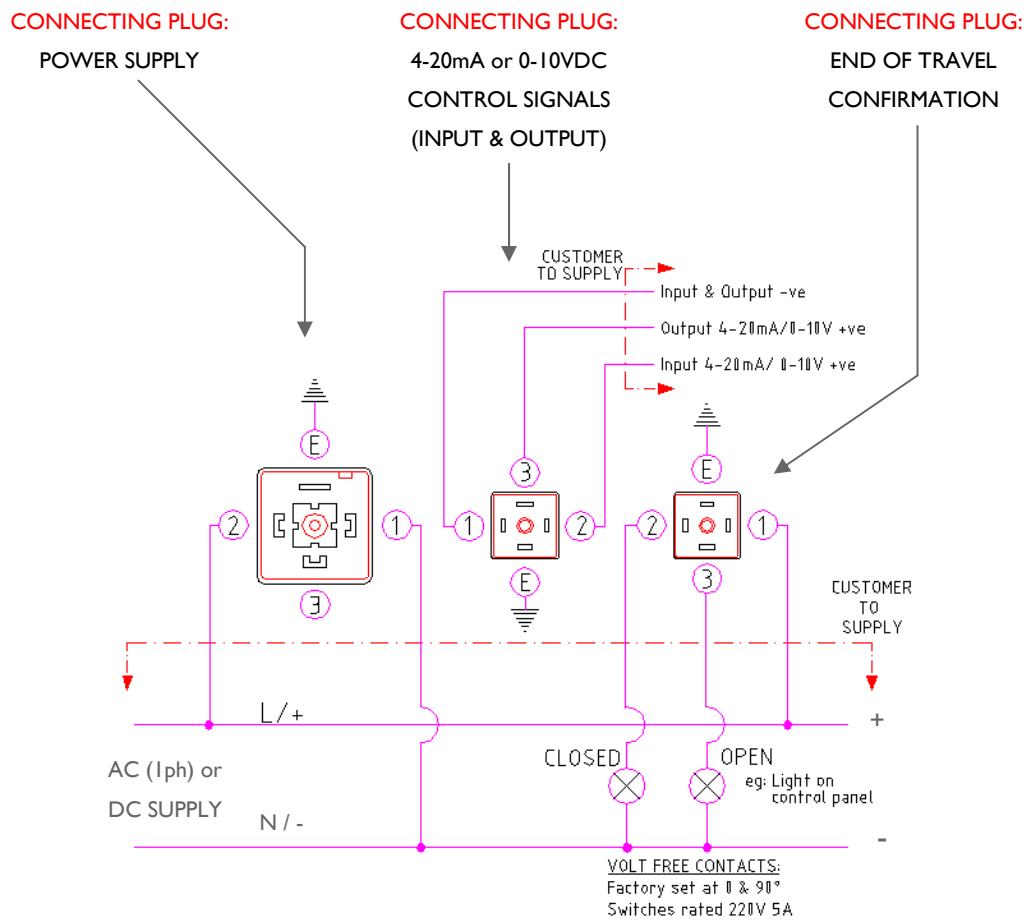
Model **J3** Wiring Diagram - AC or DC



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 SBV-M77/03

Nov 2007

Full bore direct mount 3 piece stainless steel ball valve



Specifications:

Construction	3 Pce full bore direct mount ball valve
Size Range (Full)	1/4" to 4" BSP
Pressure Rating	1000 psi max
Valve Body Material	ASTM A351CF8M
Trim Material	ASTM A351CF8M
Seat Material	RTFE
Seal Material (Options)	PTFE
Inspection & Test	API 598 BS6755 Pt 1
Standards	ANSI B16.34, ANSI 16.25, 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:

SIZE DN	C	E	D	H	L	B4	ISO
1/2"	15	139	9	78	65.5	8.65	F03/05
3/4"	20	139	9	83	76.2	8.45	F03/05
1"	25	165	11	96	86.0	11.4	F04/05
1 1/4"	32	165	11	100	102.8	11.4	F04/05
1 1/2"	38	215	14	127	119.0	13.9	F05/07
2"	50	215	14	135	131.4	13.9	F05/07
2 1/2"	50	262	17	167	164	16.8	F07/10

