

J3

Model J3-2100E



Doc: J3/2100E/01

Nov 2007

Electrically operated 316SS ECON ball valve

Full bore 2 way 316 stainless steel ECON 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
J3-2103E	Standard power to open - power to close - Stays put on mains failure
J3-2104E	Failsafe BSR - Battery Spring Return - Fails to safe position using an internal battery
J3-2105E	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 J3-2110E 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	PTFE
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	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

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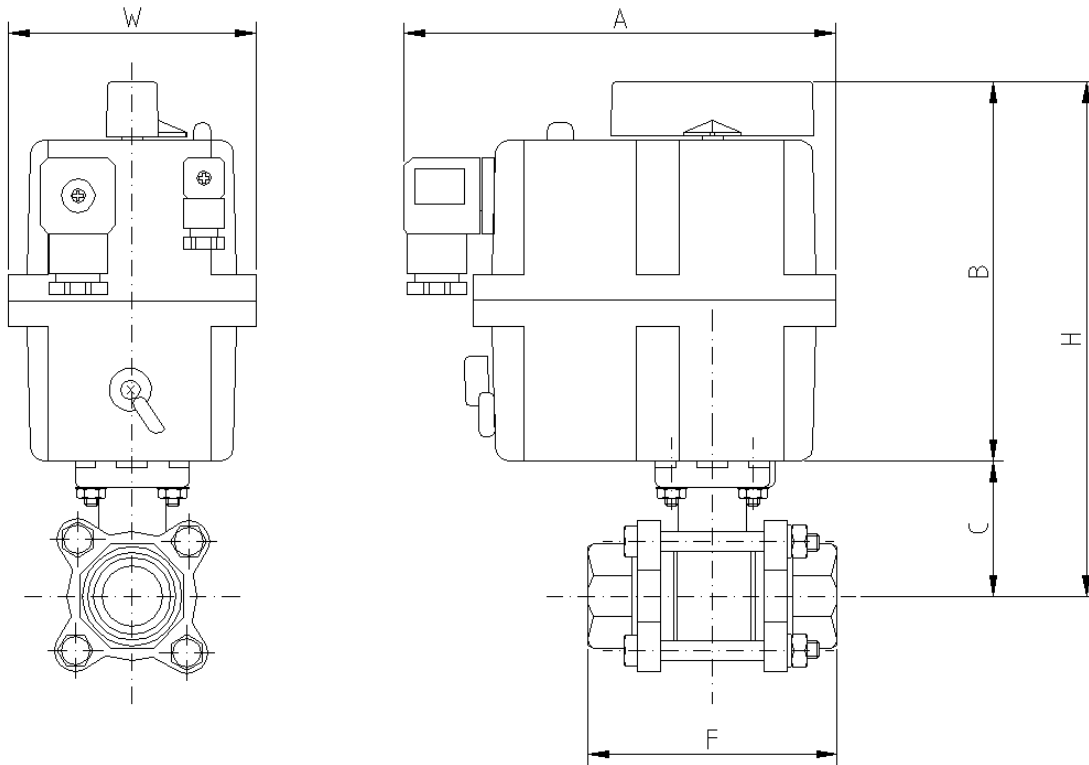
DIMENSIONS



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Electrically operated ECON 3 pce stainless 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	75	191	110	2.2	6.8
3/8"	20	177	149	42	75	191	110	2.2	6.8
1/2"	20	177	149	42	75	191	110	2.2	12.8
3/4"	20	177	149	49	80	198	110	2.4	29.1
1"	20	177	149	58	90	207	110	2.9	47.8
1 1/4"	20	177	149	63	110	212	110	3.6	72.6
1 1/2"	35	177	171	71	120	242	110	4.8	106.8
2"	35	177	196	78	140	274	110	6.1	213.7
2 1/2"	85	177	196	100	186	296	128	10.1	273.3
3"	J2-140	235	214	109	205	323	254	17.1	495.3
4"	J2-140	235	214	140	240	280	254	27.9	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**

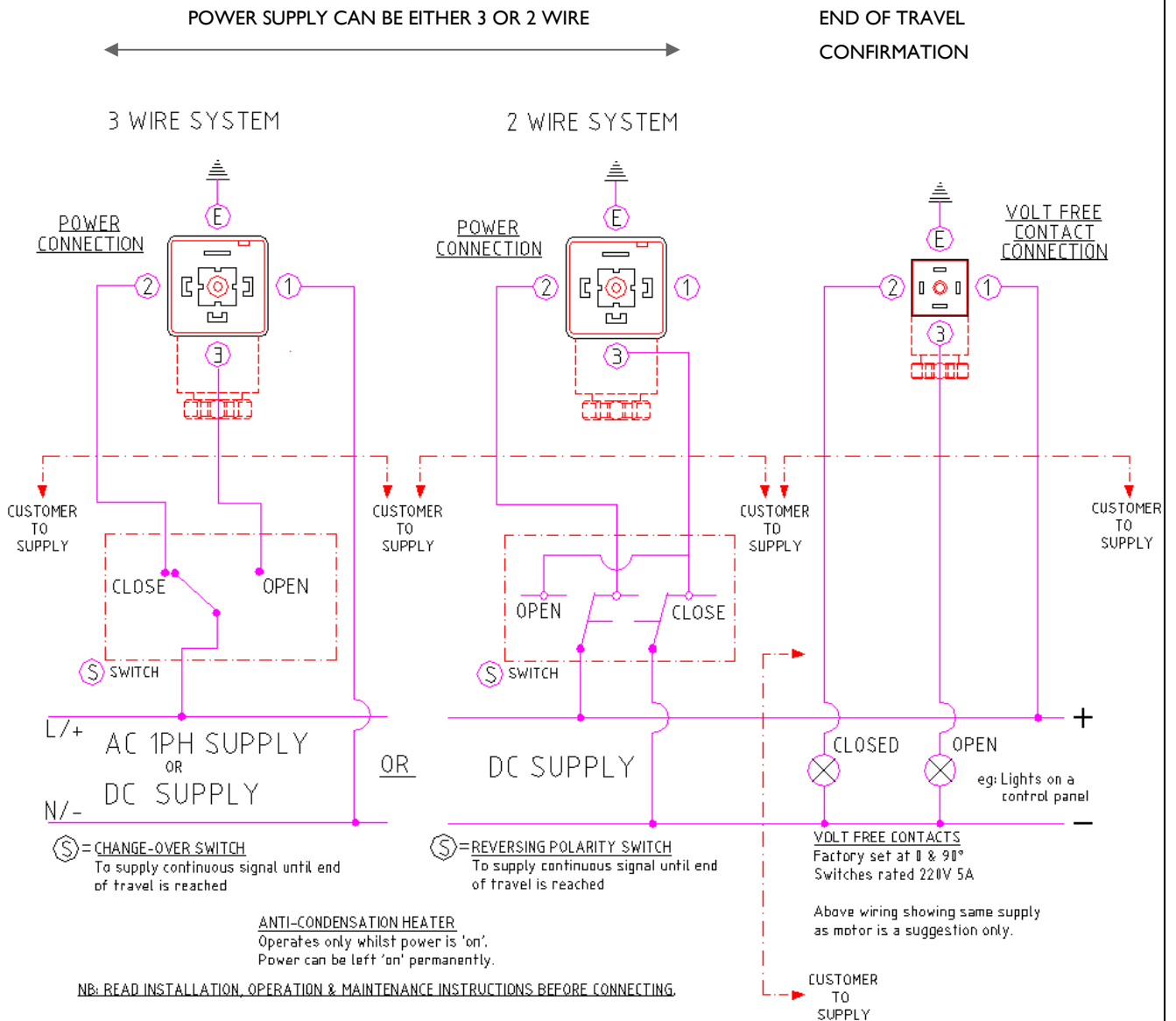
Wiring Diagram - AC or DC



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

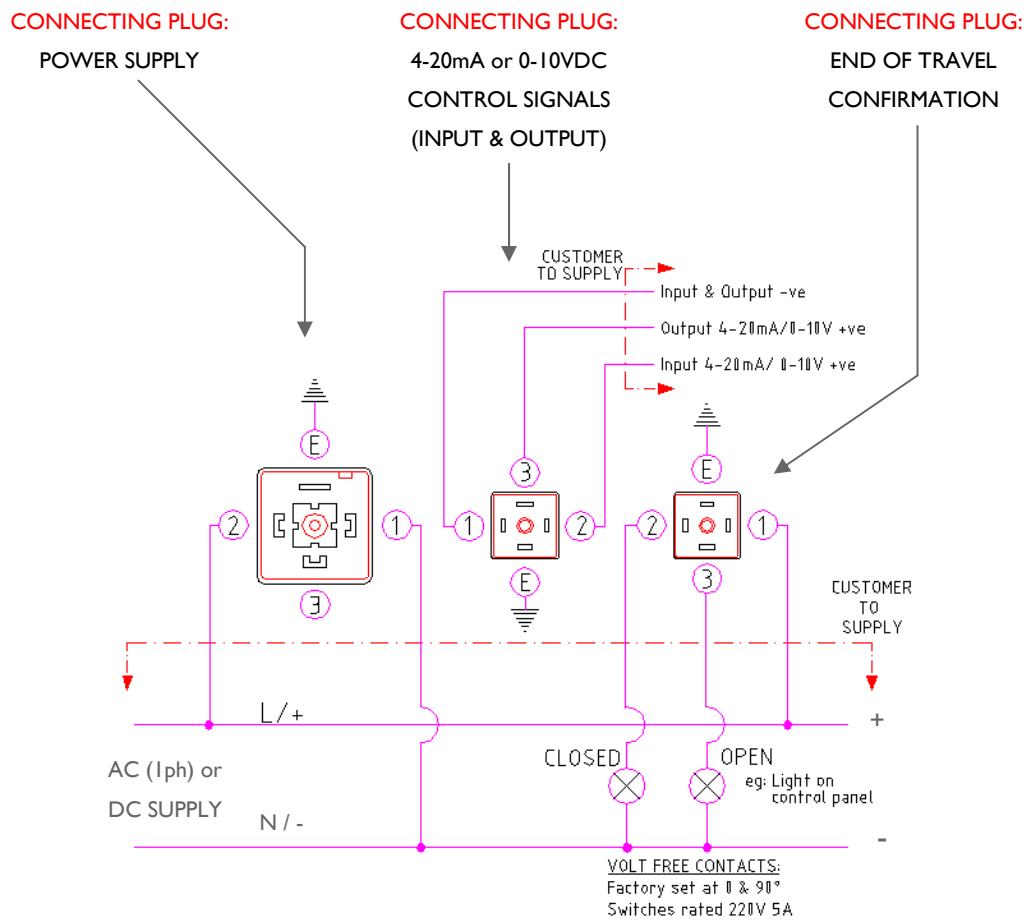
Wiring Diagram - AC or DC



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-E7444/01

Nov 2007

Full bore direct mount 3 piece Econ 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. Cavity relief hole in ball.
Seat Material	PTFE
Seal Material (Options)	PTFE + Viton O Ring stem seal
Inspection & Test	API 598 BS6755 Pt I
Standards	ANSI B16.34, ANSI 16.25, ANSI B1.20, API 6D ISO5211 DIN 259, DIN 2999, DIN3337.
Certification	EN 10204 3.1b on request
Temperature Range	-34 to +205C

Approvals:

Approved ?



PED/97/23/EC



ATEX 94/9/EC
II 2 GD



API 607 4th Ed'n /
BS6755 Pt 2



TA-Luft



Dimensions

DN	d	H	H1	L	BW			SW		M	SW	N1	N2	nx		E	Weight
					L2	B3	B2	L1	B1					O1	O2		
["]	[mm]																[kg]
¼	10.6	42	72	75	70	18	10.6	75	14.2	145	28	36	42	4x6	4x6	9	0.7
⅜	12.7	42	72	75	70	18	12.7	75	17.8	145	28	36	42	4x6	4x6	9	0.7
½	15	42	72	75	75	22	15.8	75	21.8	145	28	36	42	4x6	4x6	9	0.7
¾	20	48.5	80	80	90	28	20.9	80	27.3	145	32	36	50	4x6	4x7	9	0.9
1	25	58	90	90	100	34	26.7	90	34	175	41	42	50	4x6	4x7	11	1.4
1¼	32	63	95	110	110	43	35.1	110	42.8	175	50	42	70	4x6	4x9	11	2.1
1½	38	71	106	120	125	50	40.9	120	48.9	194	57	50	70	4x7	4x9	14	3.0
2	50	78	113	140	150	61	52.5	140	61.4	194	70	50	70	4x7	4x9	14	4.3
2½	63.5	100	149	185.5	190	76	62.7	185.5	74	265	86	70	102	4x9	4x11	17	8.3
3	76	109	159	205	220	92	78	205	90	265	101	70	102	4x9	4x11	17	11.9
4	100	140	205	240	270	115	102.4	240	115.4	400	132	-	102	-	4x11	22	22.7

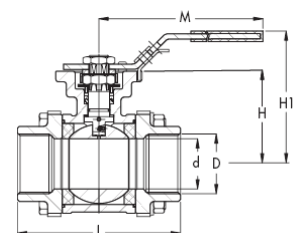
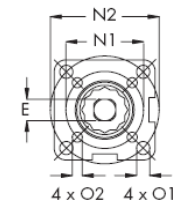


fig. 7444/7544 (BSP/NPT)