

J3CS Smart Electric Actuator Function: POWER OPEN - POWER CLOSE , STAYS PUT ON POWER FAILURE

Type: E4913S

Electric actuator fitted via mounting kit



Note: Image shows J3 actuator, awaiting updated image showing the J3CS, released in late 2016.

Main J3CS Smart electric actuator features:

- LED light for continual visual actuator status feedback.
- Fully weatherproof smart industrial actuator.
- Multi-voltage 24-240V capable actuator.
- All external electrical connections, no need to remove cover .
- Selectable manual override facility.
- Thermostatic anti-condensation heater.
- Electronic torque limiter.
- End of travel switches for remote open/ closed indication.
- CE marked.
- EU manufactured by J+J.

Applications:

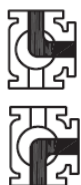
Water, oil, air and most non-corrosive media, subject to compatibility with wetted parts in contact with media. These ball valves are ideal for general service applications.

Not recommended for use on potable water, or steam.

Electrical actuators sized on a maximum differential pressure of 10 bar wet service, operated at least once per day. If the intended duty differs from these parameters or is dry (air or gas), call to check JJ actuator sizing as a larger output valve actuator may be required.

Maximum working temperature of a direct mounted assembly is +70C. For higher working temperatures , consider models that have a mounting kit or TSM stem extension between the valve and actuator which uses air cooling to dissipate the rising heat from the valve away from the actuator. Should the J3CS smart actuator see more than +70C it will malfunction.

3 Way ball valves –flow patterns:



L Port – diverting



T Port – mixing



T Port – diverting

Specifications:

Actuator housing	UV Protected Polyamide
Supply voltage range	24-240V AC or DC
IP Rating	IP67
Actuator temp limits	-20 to +70°C
Assembly temp limits	E4913S +120°C Mounted via kit
Valve body	Cast Iron
Valve ball	Stainless steel
Valve seats	PTFE
Valve Pressure rating	16 Bar
Valve temp limits	-20 to +120°C
Size range	2" to 4"

Ball valve information:

Full bore 3 way ball valve, end connections are flanged PN16.

3 Way stainless steel ball valves are used to change the direction of flow as opposed to 2 way ball valves that simply isolate the flow, and are available with either a L-port or T-port flow.

L-port diverter valves typically divert flow from the centre port to either output port. T-port valves are used for either mixing or diverting flow functions. As a diverting valve the T port valve provides straight through flow in one position, offering a lower pressure drop across the valve.

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J3CS ON - OFF ELECTRIC ACTUATOR

Power open, power close, stays put on loss of external power.

Options:

It is possible to change the J3CS actuator's function by installing user friendly plug and play function conversion kits. These will provide the following alternative functions:

Failsafe J3CS Actuator

J3CS fails to pre-set position using our BSR (Battery 'Spring Return' system which creates an alternate power supply should the external power fail.

Modulating J3CS Actuator

Movement of the J3CS actuator is proportional to an input control signal, typically 4-20mA or 0-10V, by installing our DPS (Digital Positioning System) user friendly plug and play kit. There are options for how the J3CS modulating reacts to loss of the control signal, but it will stay put on loss of external power.

Configuration options:

- 1) Closes on loss of control signal
- 2) Opens on loss of control signal
- 3) Stays put on loss of control signal

Failsafe Modulating J3CS Actuator

Failsafe modulating by installing the J+J BSR (Battery 'Spring Return') plug and play kit, operates functionally as a modulating electric actuator as described above, but will fail as per the DPS setting on loss of external power, as follows:

Configuration options:

- 1) Closes on loss of control signal, or on loss of power
- 2) Opens on loss of control signal, or on loss of power
- 3) Stays put on loss of control signal

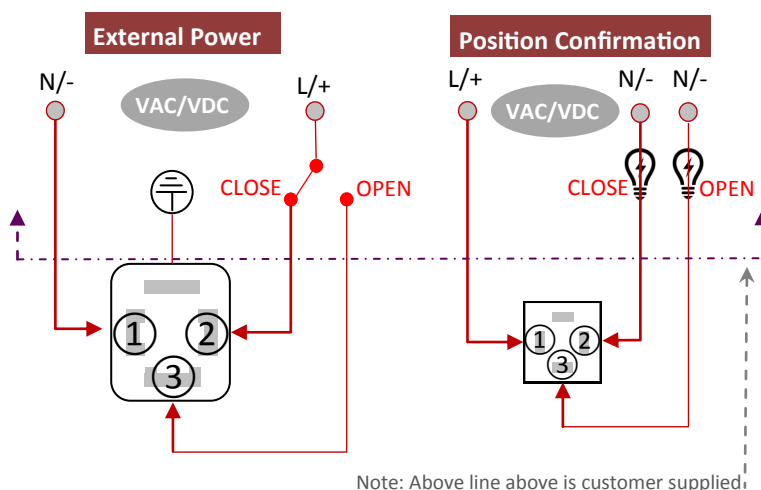
Installing J+J Plug & Play function conversion kits

Failsafe and/or modulating function is quick and easy to achieve in the J3CS smart electric actuator by the fitting of the user friendly failsafe and/or modulating plug & play function conversion kits to the standard on-off J3CS smart valve actuator. When actuated valves are ordered with failsafe, modulating or failsafe modulating function, J+J install and test the plug and play function conversion kits. They can however be easily retro-fitted to J3CS smart electric actuators should the on-off function requirement (supplied as standard function), change.

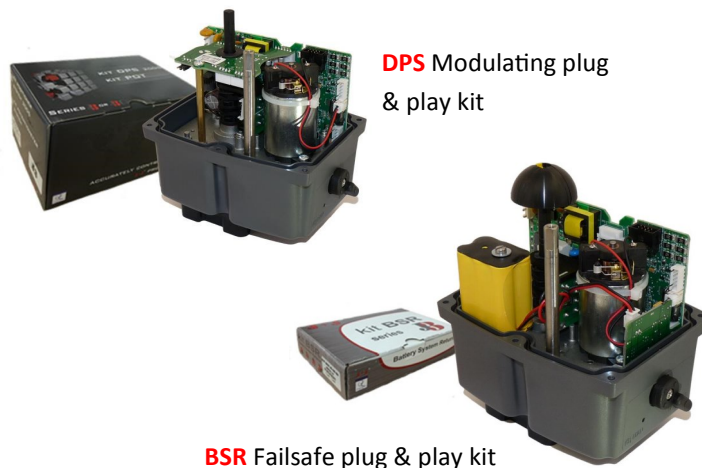
Electrical Connection - Wiring of DIN Plugs

In J+J electric actuators all electrical connections are made externally using the external DIN plugs supplied with the actuator. There is no need to remove the valve actuator's cover to connect electrically. There are no terminals internally to connect to.

J3CS ON-OFF & FAILSAFE WIRING (Same connection for either)

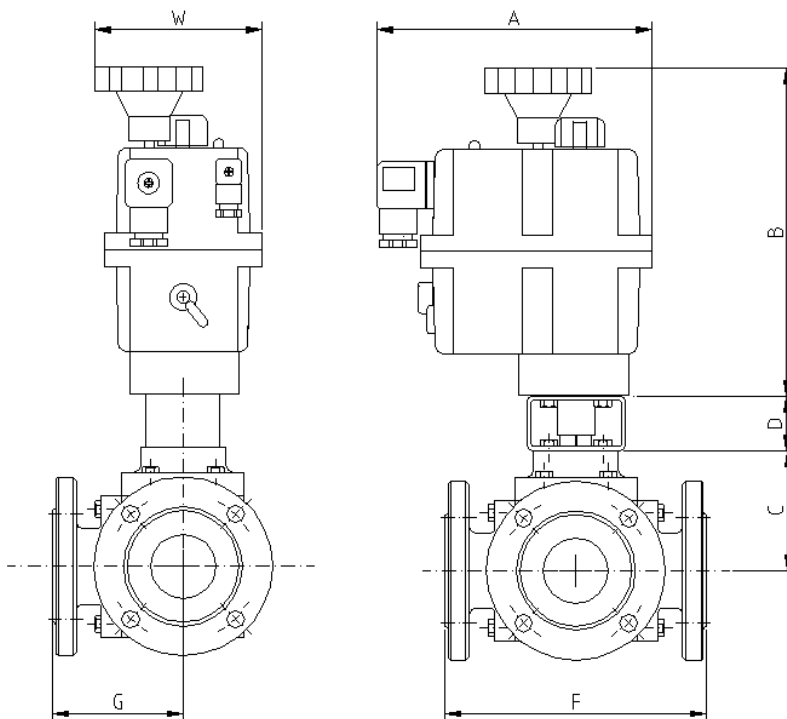


Optional Plug & Play Function Conversion Kits



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Type: E4913S Actuator fitted to valve via a bracket and drive adapter



Note: Drawing shows J3 actuator, awaiting updated drawing showing the J3CS, released in late 2016.

E4913S Dimensions remain unchanged for all versions							
- on-off, failsafe, modulating & failsafe modulating							
	Model	A	E	F	H	W	Kilos
2"	55	177	50	220	331	110	19.2
2 1/2"	85	177	50	250	331	110	31.0
3"	*140	235	70	260	429	214	35.2
4"	*300	235	70	275	439	214	51.2
5"	On request (with aluminium actuator)						
6"	On request (with aluminium actuator)						