

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

Type: E4713S

Electric actuator fitted via mounting kit



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:

Potable water (valve is not WRAS approved), oil, air and most non-corrosive media, subject to compatibility with wetted parts in contact with media.

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 J3 smart actuator see more than +70C it will malfunction.

| 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 | E4713S +130°C Mounted via kit |
| Valve body | CF8M (Cast 316SS) |
| Valve ball | 316SS |
| Valve seats | RPTFE |
| Valve Pressure rating | ANSI Class 150 |
| Valve temp limits | -20 to +190°C |
| Size range | 1" to 4" |

Ball valve information:

Full bore 3 way ball valve, flanged ASA150, all stainless steel construction, end connections are flanged ASA150 (ASA300 available on request).

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

L port ball valves simply divert the flow from the centre port to either of the outlet ports whereas T port ball valves can be configured to either divert the flow, or have all 3 ports connected allowing the media to mix.

3 Way ball valves –flow patterns:



L Port – diverting



T Port – mixing



T Port – diverting

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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 pug 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

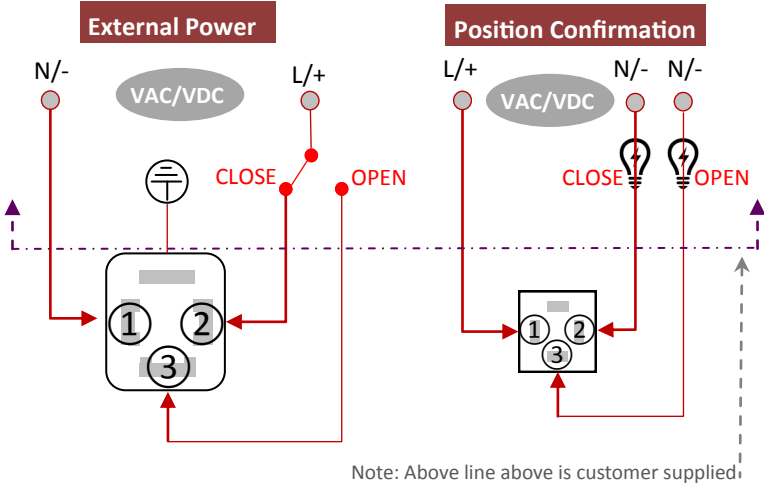
Installing J+J Plug & Play function conversion kits

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.

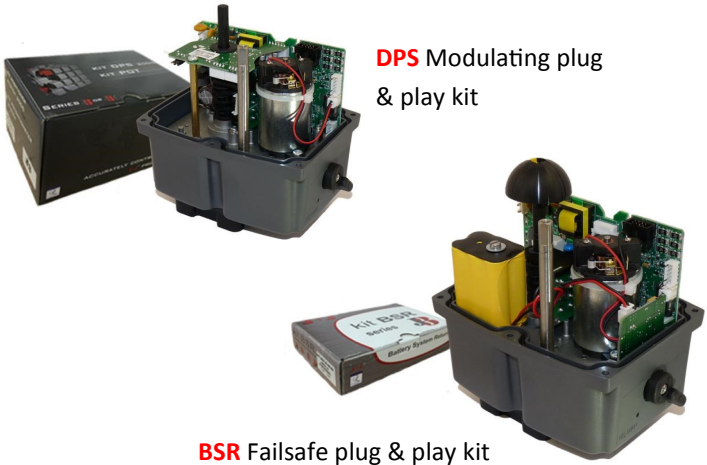
Electrical Connection - Wiring of DIN Plugs

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

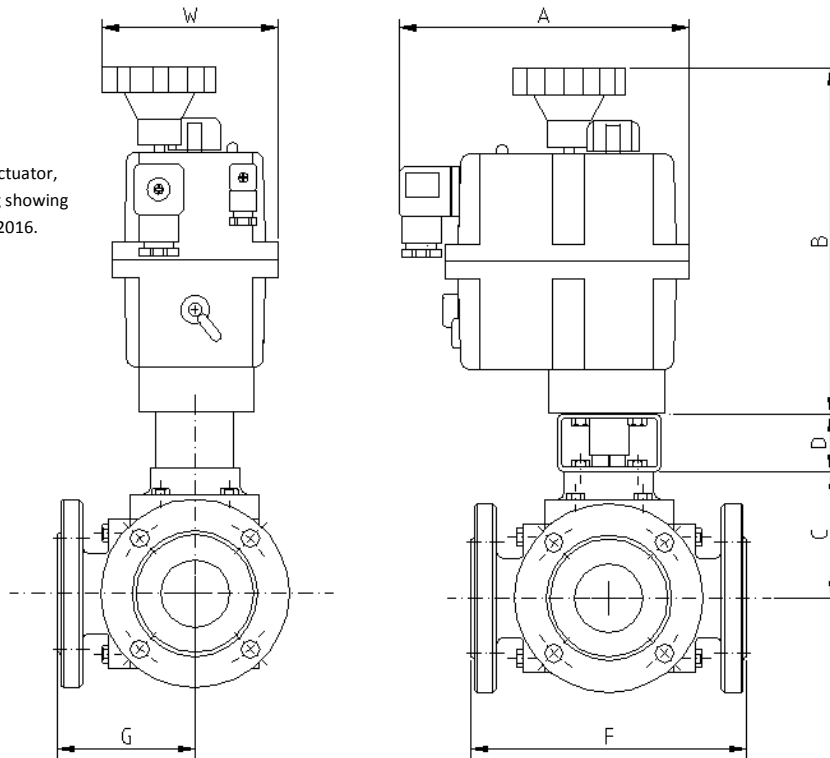


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Typical Dimensions:

Type: **E4713S** 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.



| E4713S Dimensions remain unchanged for all versions | | | | | | | |
|--|-------|-----|----|-----|-----|-----|-------|
| - on-off, failsafe, modulating & failsafe modulating | | | | | | | |
| | Model | A | D | F | H | W | Kilos |
| 1" | 20 | 177 | 50 | 180 | 291 | 110 | 12 |
| 1 1/2" | 35 | 177 | 50 | 200 | 331 | 110 | 15 |
| 2" | 35 | 177 | 50 | 220 | 331 | 110 | 19 |
| 2 1/2" | *140 | 235 | 70 | 250 | 414 | 214 | 33 |
| 3" | *140 | 235 | 70 | 250 | 429 | 214 | 35 |
| 4" | *300 | 235 | 70 | 340 | 439 | 214 | 52 |