

*Feature rich multi-voltage smart electric actuator with LED status light and function conversion kits.*



### Overview

The J3C-L300 is a smart electric actuator, designed and manufactured by J+J in the EU, is of industrial quality, fully weatherproof and carries the European CE marking.

With simple external electrical connections to supplied DIN plugs which eliminate the need to remove the actuator's cover to connect, and with multiple ISO5211 valve mounting options, the J3C-L300 is very user friendly to install.

A highly visible multi-color LED gives users continuous actuator feedback status advising the actuators operational status, a top rated feature by users. In-built protective features include a thermostatic space heater and an electronic over-torque limiter.

The standard on-off function can be changed to failsafe and/or modulating by installing quick and easy to install plug and play function conversion kits.

### J3C-L300 Electric Actuator Specifications

Voltage range - automatic sensing	24V AC (1ph) or DC
Operating time (0-90° no load)	58 seconds
Maximum break torque	3097in.lbs (350Nm)
Maximum operating torque (run/ reseat)	2655 in.lbs (300Nm)
Duty rating	75%
IP Rating (IEC 60529)	IP67
Working angle Standard (on request)	90° (180° or 270° options)
Mounting ISO:5211 x DIN 3337	F07 & F10 x 22mm star (std)
Motor switches	2 x SPDT micro switches
End of travel confirmation (volt free)	2 x SPDT micro switches
Heater	3.5W
Ambient temperature range	-4 to +158°F (-20° to +70°C)
Electrical connecting plugs	EN175301-803
Weight	11.5lbs (5.2kg)

### J3C-L300 Consumption

24V AC	At maximum torque	1.8A (for power supply sizing x 2.5)
24V DC	At maximum torque	2.3A (for power supply sizing x 2.5)

### How this J3C electric 1/4 turn valve actuator works (on-off)

Electrically operated valves are driven by an electric actuator containing a motor and gearbox. On receipt of a continuous voltage signal (not pulse) the motor runs and, via a gearbox in the electric actuator, rotates the valve stem. The motor stops at the desired position (usually 0° or 90°) by an internal cam striking a micro-switch. The valve actuator remains in this position, with the voltage still applied continuously, until switched and a continuous voltage reversing signal (not pulse) is applied, which runs the motor in the opposite direction, reversing the rotation until a separate internal cam strikes a separate micro-switch and stop the motor.

### J3C Main features

IP67 Weatherproof, UV protected, corrosion resistant plastic housing.

LED light gives user continuous visual actuator status feedback - if the LED is flashing, there's a problem!

Many protective features as standard - such as over-torque and anti-condensation.

Multi-voltage capable, automatically sensed

Very user friendly and easy to install - all the electrical connections are external.

Unique plug & play function conversion kits create FAILSAFE & MODULATING function from a standard on-off electric actuator.

Available with actuator function: **POWER OPEN - POWER CLOSE** **FAILSAFE** **MODULATING** **FAILSAFE MODULATING**

### Wiring Diagram

In these 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.

### Function options:

#### J3C ON-OFF ELECTRIC ACTUATOR

Standard function

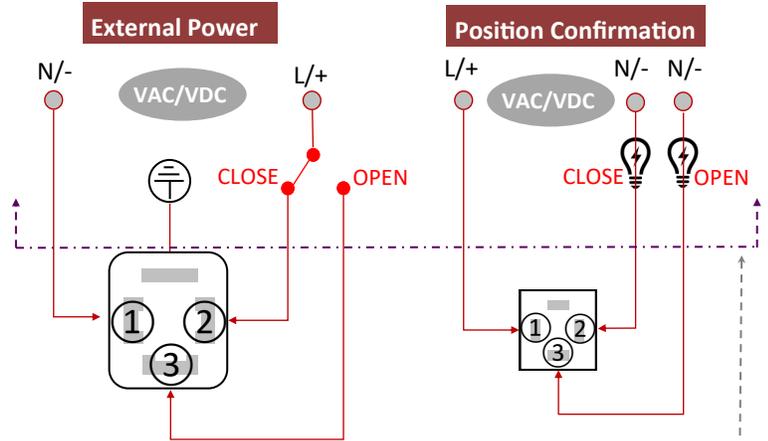
Power open, power close. Stays put on loss of external power. Power remains on at all times.

#### J3C FAILSAFE ELECTRIC ACTUATOR

Fails to pre-set position on loss of external power

Power open, power close, fails to pre-set 'safe' position on loss of external power using internal industrial trickle charged rechargeable NiCad battery. Can be set to fail close (NC or normally closed) or fail open (NO or normally open) on loss of external power. The failsafe electric actuator moves to the position command applied at the time external power is restored.

#### J3C ON-OFF & FAILSAFE WIRING (Same connection for either)



Note: Above line above is customer supplied

### NOTE ON POWER SUPPLIES



It is imperative that the power supply has sufficient capacity to drive the J3C electric actuator. Ensure that safety factor of 3 is used to cover inrush on start-up, and for increased draw over time as the brushed DC motor wears.

### J3C Materials of construction:

Housing	Anti-corrosive Polyamide
Fasteners	Stainless steel
Gears	Polyamide (speed reducing) & steel
Shaft	Stainless steel
Output drive	Zamac
Position indicator	Clear Polyamide

### J3C Plug & Play function conversion kits:

Failsafe and/or modulating function is quick and easy to achieve in the J3C smart electric actuator by the fitting of the user friendly failsafe and/or modulating plug & play function conversion kits to the standard on-off J3C smart valve actuator. When actuated valves are ordered with failsafe, modulating or failsafe modulating function, AVS install and test the plug and play function conversion kits. They can however easily be retro-fitted to J3C smart electric actuators should the on-off function requirement, supplied as standard, change.

Fitting both plug and plug function conversion kits creates failsafe modulating functionality.



**BSR** plug & play kit for **J3C** creates a **FAILSAFE** ELECTRIC ACTUATOR

**DPS** plug & play kit for **J3C** creates a **MODULATING** ELECTRIC ACTUATOR

Dimensions

