1504in.lbsSmart Electric Valve Actuator

Failsafe Function Type: J3C Model: L140-BSR

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

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

Overview

The J3C-L140BSR is a smart failsafe 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-L140-BSR 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 failsafe version has an internal battery back-up (BSR System) pre-installed which will use stored battery energy to send the J3C-H140-BSR actuator to its pre-set fail safe position (fail closed, or can be set fail open) upon power interruption.

J3C-L140BSR Electric Actuator Specifications

Voltage range - automatic sensing	24V AC (1ph) or DC
Operating time (0-90° no load)	34 seconds
Maximum break torque	1504 lb.ins (170Nm)
Maximum operating torque (run/ reseat)	1239 lb.ins (140Nm)
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 22 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-L140 Consumption

24V AC	At maximum torque	1.9A (for power supply sizing x 2.5)
24V DC	At maximum torque	2.3A (for power supply sizing x 2.5)

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.

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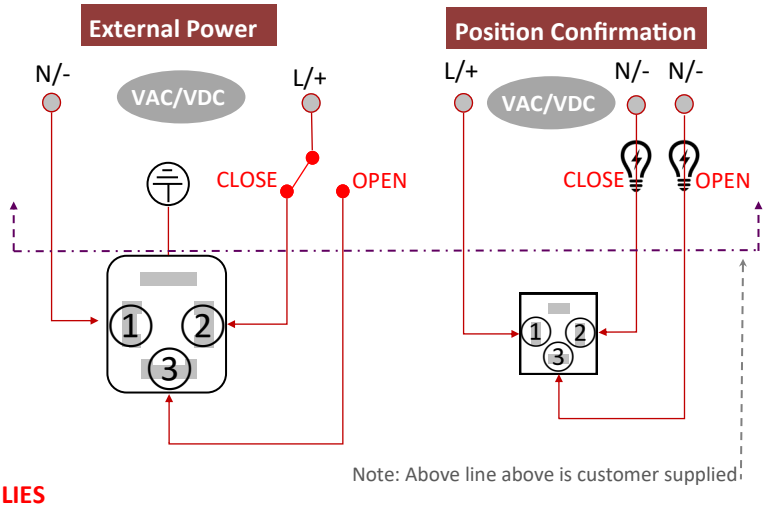
Wiring Diagram

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.

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 2.5 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 ACTAUTOR

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J3C FAILSAFE ACTUATOR WITH BSR PLUG & PLAY KIT PRE-INSTALLED

HOW THE BSR FAILSAFE SYSTEM WORKS

The BSR plug and play FAILSAFE function conversion kit comprises 2 x NiCad industrial rechargeable battery packs, a PCB which in simplistic terms contains a system to trickle charge the batteries, to switch from external to battery power on the loss of external power and to initiate LED flashing sequences, and a jumper to plug into the PCB.

Once installed, the batteries are constantly trickle charged whenever external power is applied, maintaining them at full charge so that power is available to draw at the moment the external power fails. When the external power fails, the BSR PCB switches from external to internal power, and battery power is drawn to send the actuator to the pre-determined failsafe position, if not already in that position at the moment of loss of external power.

On resumption of external power, the J3C failsafe electric actuator will respect the command signal being applied at the moment the external power is restored. This may be different from the position seen at the moment of loss of external power.

J3C 140/300 BSR SPECIFICATIONS

	J3C-H140	J3C-L140	J3C-H300	J3C-L300
Number of operations possible with 100% charge of battery pack	2		1	
Minimum time to replace charge used in one battery movement	30mins		50 min	
Initial time required for 100% charge, before being put into service	27 hours			
Nominal battery capacity	1000mA			
Battery charge	37 mA/hr			
System to select fail closed, or fail open (see separate operating instructions)	Jumper on internal PCB			
Current draw from battery during operation	15.1mA		25.7mA	
Weight of BSR	0.9lbs (0.4kg)			

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Dimensions