KIT DPS J4C 20/85

The DPS is a device for the J4C electric actuator that turns the actuator into a servo controlled valve positioner

The DPS is a modulus with a microprocessor (CPU) which digitally manages the analogical input and output and compare them with the position of the actuator to establish a uniform relation.

The analogical inputs are sent to the CPU where they are processed for his continuous comparison with the position of the actuator, this allows to obtain a very high sensitivity next to a very high repetitivity of the position (see characteristics).

The DPS in communication with the electronic system of the actuator provides an integral management of the motion of the actuator.

Outside box

Inside box

SPECIFICATIONS

MODEL	S20-B20	S35-B35	S55-B55	S85-B85
Accuracy	3% F.S.			
Linearity	2 % F.S.			
Hysteresis	3 % F.S.			
Steps at 4/20mA	Min. 150 steps 90º			
Steps at 0/10V	Min. 98 steps 90º			
Steps at 0/20mA	Min. 150 steps 90º			
Steps at 1/10V	Min. 87 steps 90º			
4/20mA or 0/20mA Input signal impedance	100 Ohm			
0/10V or 1/10V Input signal impedance	25 KOhm			
Class	D DIN EN15714			
Weight	0,58 Kg			

F.S. Full scale

Num: RII-AEE: 8760

If the WEEE (Waste Electrical and Electronic Equipment) contains batteries, they must be removed and deposited separately for proper management before being deposited at the collection facilities. Batteries may contain hazardous substances that can harm the environment and human health if mishandled or disposed of improperly. Therefore, it is important to deposit them in specific containers for recycling and proper treatment. In some countries, there are selective collection programs for used batteries in supermarkets, electronic stores, or other establishments.

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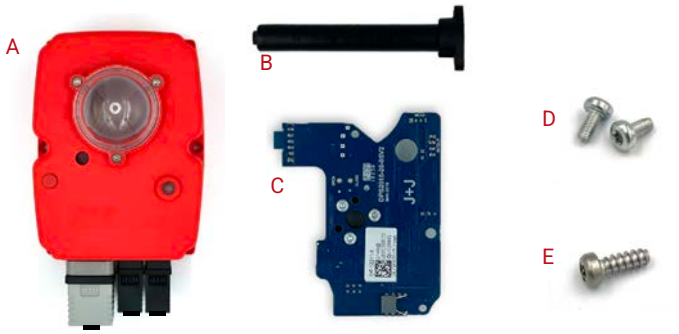
ASSEMBLY INSTRUCTIONS - DPS KIT 20/85

Very important!

Please follow the instructions step by step. Before connecting “A” plug to the actuator, check that the voltage is the same as the one specified on the label (carter). To convert a standard (on-off) J4C electric actuator into a modulating function with positioner, proceed as follows:

KIT COMPONENTS

Element A - 1 Cover
Element B - 1 Plastic column
Element C - 1 DPS positioner PCB
Element D - 2 Sheet metal Fixing screws
Element E - 1 Plastic Fixing screws



* Fill in the document inside the kit, and send it to the fax number or e-mail, shown in the document. The unit is ready to work.

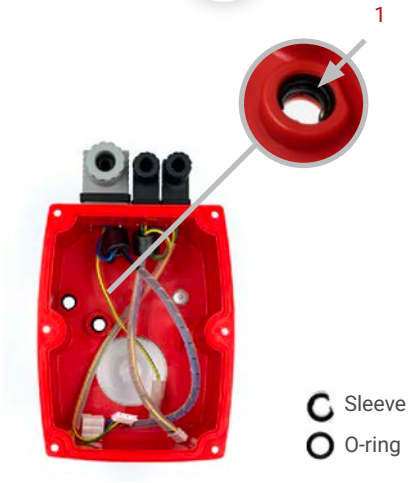
PREPARING THE COVER:

The cover of the kit is for a J4C 20, 35 and 55 models. In case you want to mount a kit on a J4C 85, follow the instructions:

1

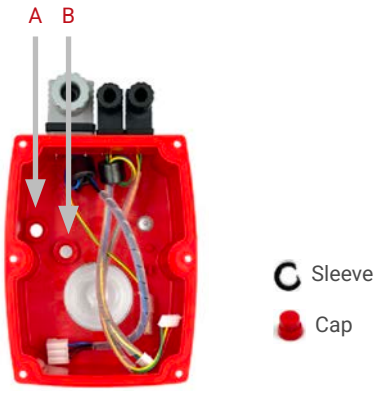
Remove the cap and leave the o-ring inside the hole.

2



Remove the sleeve 1 and leave the o-ring inside.

3



Introduce the sleeve in hole A and press it until is fully inside (Fig.A).

Introduce the cap in hole B and press it until it is fully inside (Fig.B)

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KIT DPS 20/85 ASSEMBLY INSTRUCTIONS — PAGE 1/3

1

Remove the screw, which is fixing the hand wheel.

2

Remove the 6 screws, which are fixing the body to the cover of the actuator.

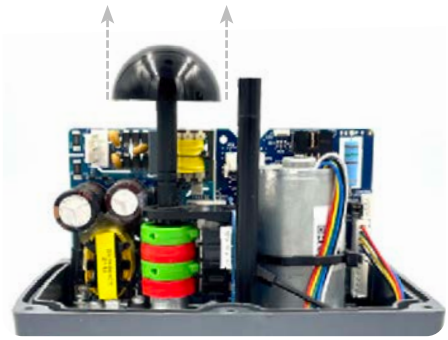
3

Carefully lift the cover.

4

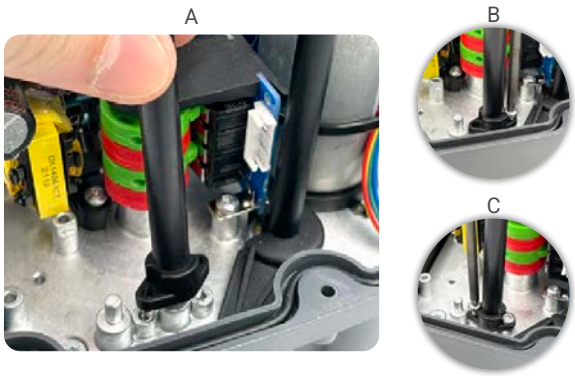
Remove the cables (from the cover) connected to the actuator PCB (Fig. A, B and C).

5



Carefully remove the position indicator.

6



Fix the plastic column (Element B) on the base plate, by using 2 sheet metal fixing screws (Element D) (Fig. A, B and C).

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KIT DPS 20/85 ASSEMBLY INSTRUCTIONS — PAGE 2/3

7

Take the DPS cover (Element A) and connect its cables, following (Fig. A, B, C).

8

Place the mentioned cables as per (Fig. A and B).

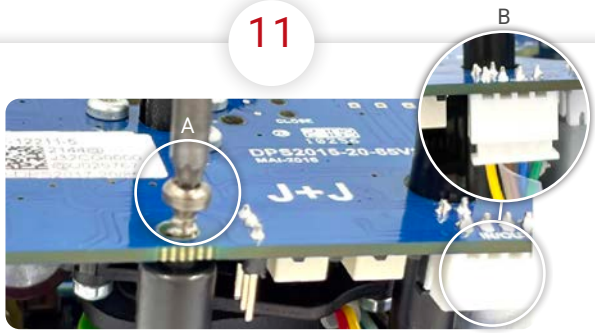
9

Mount the DPS positioner PCB (Element C), matching the cleft of the shaft with the key inside the DPS gear.

10

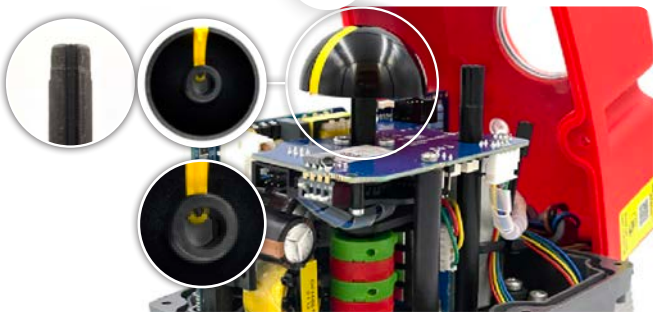
Press the DPS positioner PCB (Element C) along the shaft until the PCB connector (JP3) is plugged in the actuator PCB connector (JP2).

11



Fix the DPS positioner PCB (Element C) to the plastic column (Element B) with the plastic fixing screw (Element E) (Fig. A). Connect the remaining cable (Element A) to the connector base on the DPS PCB (Element C) (Fig. B).

12



Carefully insert the position indicator, matching its inner key with the cleft of the shaft.

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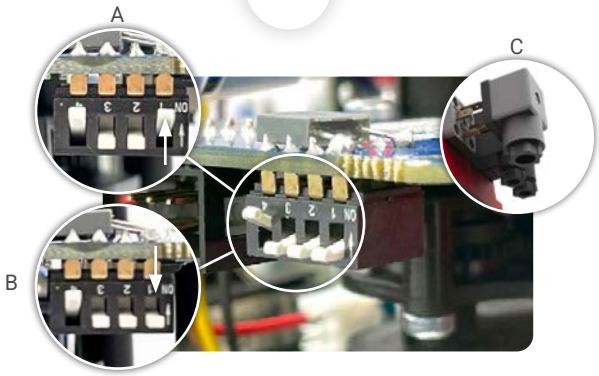
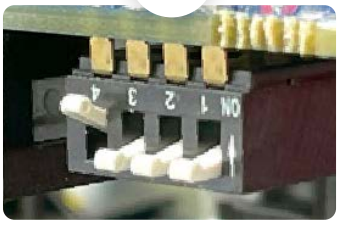
13

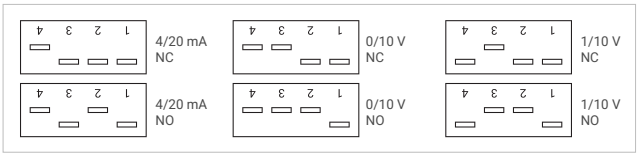


In order to set the actuator up, use the DIPs shown in the picture. Put DIP 1 in ON position (Fig. A), connect the grey connector to the power supply (Fig. C). Put DIP 1 back to the prior position (Fig. B). Wait until the actuator make a complete maneuver.

14



Use the configuration you need by moving the DIPs, according to the instrumentation signal:



15

Carefully mount the cover, minding the cables not to be pressed.

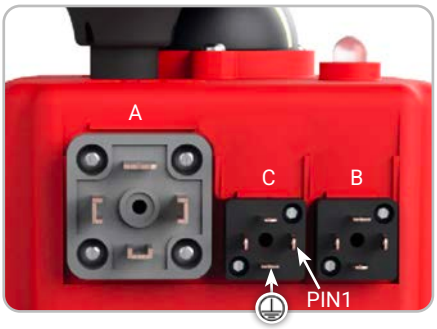
16

Fix the cover to the body by using the 6 screws.

17

Mount the hand wheel on the shaft and fix it by using the screw.

18



Mount the 3 outer connectors together with its rubber joints and fix them to the cover, by using the screws.

Outer Set-Up: Only if necessary.

- C plug - Connect a cable between PIN 1 and PIN Earth.
- A plug - Connect it to the power supply.
- C plug, disconnect the cable between PIN 1 and PIN Earth.

The actuator will make a complete maneuver.

Connect C connector to the actuator. The actuator is ready to work.

Num: RII-AEE 8760

If the WEEE (Waste Electrical and Electronic Equipment) contains batteries, they must be removed and deposited separately for proper management before being deposited at the collection facilities. Batteries may contain hazardous substances that can harm the environment and human health if mishandled or disposed of improperly. Therefore, it is important to deposit them in specific containers for recycling and proper treatment. In some countries, there are selective collection programs for used batteries in supermarkets, electronic stores, or other establishments.

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KIT DPS J4C 140/300

The DPS is a device for the J4C electric actuator that turns the actuator into a servo controlled valve positioner.

The DPS is a modulus with a microprocessor (CPU) which digitally manages the analogical input and output and compare them with the position of the actuator to establish a uniform relation.

The analogical inputs are sent to the CPU where they are processed for his continuous comparison with the position of the actuator, this allows to obtain a very high sensitivity next to a very high repetitivity of the position (see characteristics).

The DPS in communication with the electronic system of the actuator provides an integral management of the motion of the actuator.

Outside box

Inside box

SPECIFICATIONS

MODEL	S140-B140	S300-B300
Accuracy	3% F.S.	
Linearity	2 % F.S.	
Hysteresis	3 % F.S.	
Steps at 4/20mA	Min. 150 steps 90º	
Steps at 0/10V	Min. 98 steps 90º	
Steps at 0/20mA	Min. 150 steps 90º	
Steps at 1/10V	Min. 87 steps 90º	
4/20mA or 0/20mA Input signal impedance	100 Ohm	
0/10V or 1/10V Input signal impedance	25 KOhm	
Class	D DIN EN15714	
Weight	0,96 Kg	

F.S. Full scale

Num: RII-AEE: 8760

If the WEEE (Waste Electrical and Electronic Equipment) contains batteries, they must be removed and deposited separately for proper management before being deposited at the collection facilities. Batteries may contain hazardous substances that can harm the environment and human health if mishandled or disposed of improperly. Therefore, it is important to deposit them in specific containers for recycling and proper treatment. In some countries, there are selective collection programs for used batteries in supermarkets, electronic stores, or other establishments.

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ASSEMBLY INSTRUCTIONS - DPS KIT 140/300

KIT COMPONENTS

Element A - 1 Cover
Element B - 1 Plastic column
Element C - 1 DPS positioner PCB
Element D - 2 Sheet metal Fixing screws
Element E - 1 Plastic Fixing screws
Element F - 1 Schematic diagram label

A

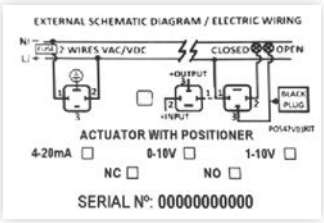
B

C

D

E

F



* Fill in the document inside the kit, and send it to the fax number (93 871 32 72) or e-mail: info@jjbcn.com, shown in the document.

* Remember to stick the (F) label on the actuator.

Very important!

Please follow the instructions step by step. Before connecting “A” plug to the actuator, check that the voltage is the same as the one specified on the label (carter). To convert a standard (on-off) J4C electric actuator into a modulating function with positioner, proceed as follows:

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KIT DPS 140/300 ASSEMBLY INSTRUCTIONS — PAGE 1/3

1

Remove the screw, which is fixing the hand wheel.

2

Remove the 8 screws, which are fixing the body to the cover of the actuator.

3

Carefully lift the cover.

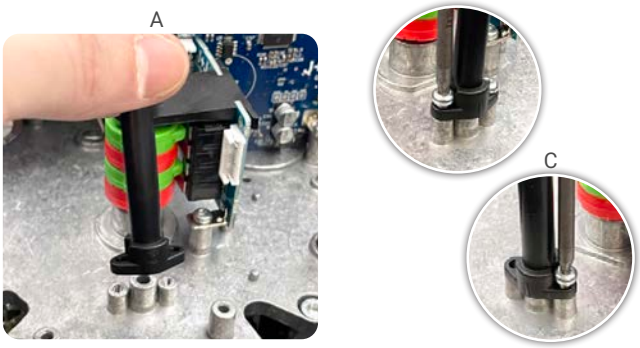
4

Remove the cables (from the cover) connected to the actuator PCB (Fig. A, B and C).

5

Carefully remove the position indicator.

6



Fix the plastic column (Element B) on the base plate, by using 2 sheet metal fixing screws (Element D) (Fig. A,B and C).

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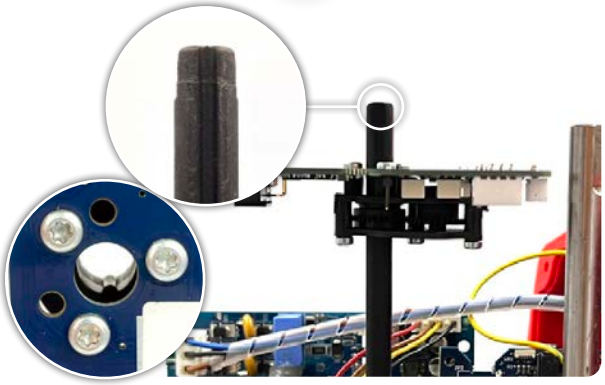
KIT DPS 140/300 ASSEMBLY INSTRUCTIONS — PAGE 2/3

7

Take the DPS cover (Element A) and connect its cables, following (Fig. A,B and C).

8

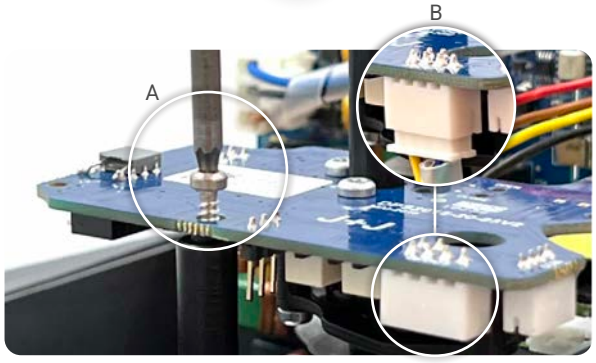


Mount the DPS positioner PCB (Element C), matching the cleft of the shaft with the key inside the DPS gear.

9

Press the DPS positioner PCB (Element C) along the shaft until the PCB connector (JP3) is plugged in the actuator PCB connector (JP2).

10



Fix the DPS positioner PCB (Element C) to the plastic column (Element B) with the plastic fixing screw (Element E) (Fig. A). Connect the remaining cable (Element A) to the connector base on the DPS PCB (Element C) (Fig. B).

11

Carefully insert the position indicator, matching its inner key with the cleft of the shaft.

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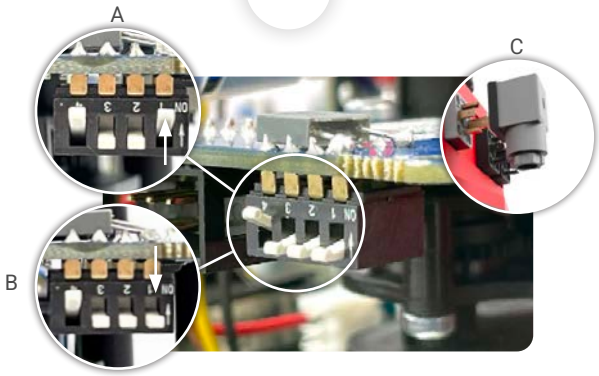
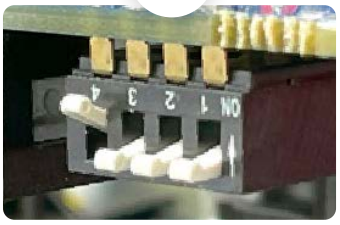
12

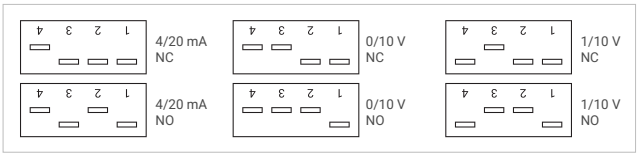


In order to set the actuator up, use the DIPs shown in the picture. Put DIP 1 in ON position (Fig. A), connect the grey connector to the power supply (Fig. C). Put DIP 1 back to the prior position (Fig. B). Wait until the actuator make a complete maneuver.

13



Use the configuration you need by moving the DIPs, according to the instrumentation signal:



14

Carefully mount the cover, minding the cables not to be pressed.

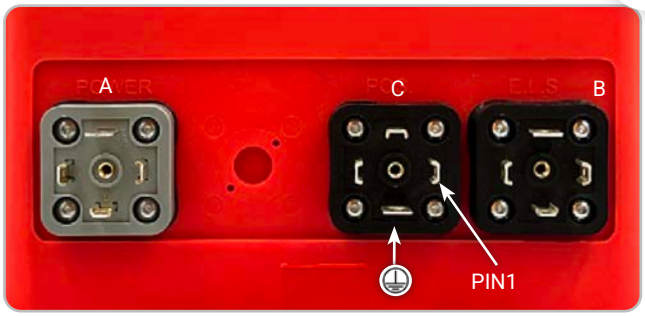
15

Fix the cover to the body by using the 8 screws.

16

Mount the hand wheel on the shaft and fix it by using the screw.

17



Mount the 3 outer connectors together with its rubber joints and fix them to the cover, by using the screws.

Outer Set-Up: Only if necessary.

- C plug - Connect a cable between PIN 1 and PIN Earth.
- A plug - Connect it to the power supply.
- C plug, disconnect the cable between PIN 1 and PIN Earth.

The actuator will make a complete maneuver.

Connect C connector to the actuator. The actuator is ready to work.

If the WEEE (Waste Electrical and Electronic Equipment) contains batteries, they must be removed and deposited separately for proper management before being deposited at the collection facilities. Batteries may contain hazardous substances that can harm the environment and human health if mishandled or disposed of improperly. Therefore, it is important to deposit them in specific containers for recycling and proper treatment. In some countries, there are selective collection programs for used batteries in supermarkets, electronic stores, or other establishments.

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