



VALVE AND FLOW CONTROL SPECIALISTS
SERVICE AND RELIABILITY



ELECTRIC POWER

J4C

**MULTI-VOLTAGE QUARTER TURN
ELECTRIC ACTUATORS**

Brisbane Sydney Melbourne Darwin Perth
VALVE AND FLOW CONTROL SPECIALISTS PTY LTD
E-mail sales@valveandflowcontrolspecialists.com



20Nm
V
300Nm

IP67

75%
Duty rating

**Electronic
Torque
Limiter**

**Automatic
Temperature
Control**

**Battery
System
Returns**

**Digital
Positioner
System**

Bluetooth

Modbus



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BRUSHLESS TECHNOLOGY

Without leaving our philosophy of **total multivoltage** actuators, we would like to introduce, in our range of electric actuators, the **new J4 series**, which works, for the first time, with a **brushless motor**.

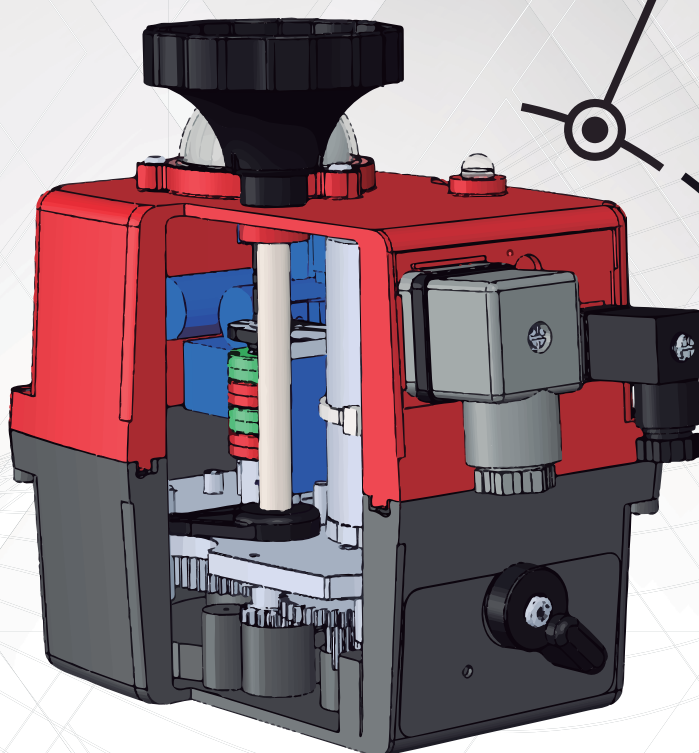
The **brushless motor** is stronger, more efficient and with less maintenance than a brushed motor. It definitely contributes to **enlarge our actuators life**.

We are launching a **complete range** of torques, from 20Nm to 300Nm, which **B** models work at **12VAC/VDC** and **S** models do the same from **24VAC/VDC to 240VAC/VDC**.

Its high level technology, makes our actuators capable to intelligently communicate, using both the **MODBUS** protocol or via **BLUETOOTH**.

The mentioned communication systems appear as "**factory options**" in our catalogue.

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VCO Visual control of operation

AVS All voltage supply plug

VFC Volt free contact plug

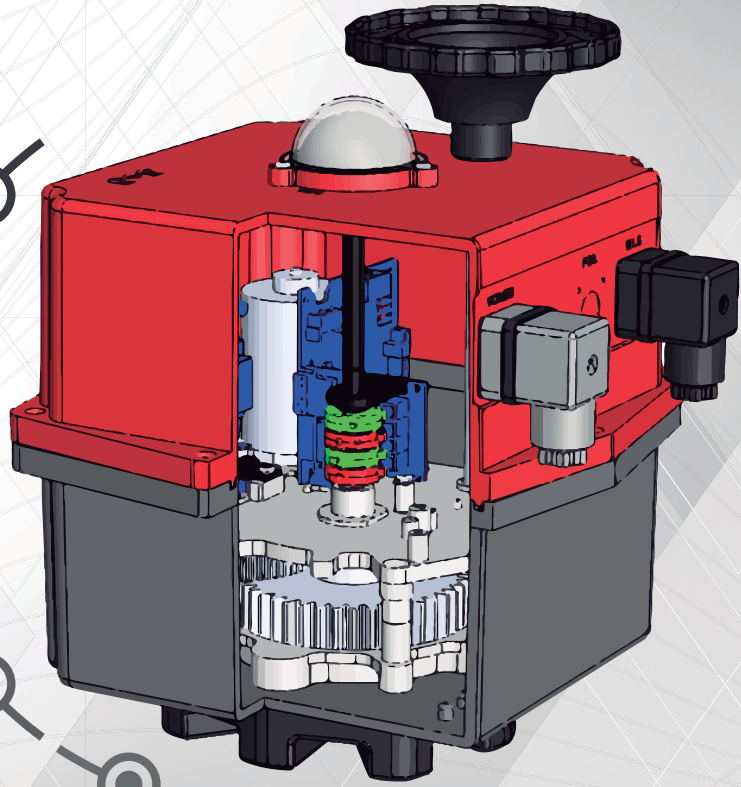
MDL Automatic / manual declutching

EMO Emergency manual override

VPI 360° Visual position indicator

ETL Electronic torque limiter

ATC Automatic indoor temperature control



AVS PCB
Split PCB
Power supply + Control

optional: INTERFACE plug



specifications

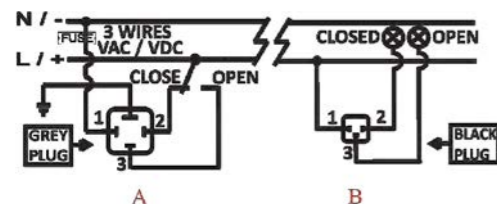
Series	Model	Voltage	Series	Model	Voltage	
J4	S20 S35 S55 S85 S140 S300	24 a to 240 VDC/VAC 50/60Hz -0/+5%	J4	B20 B35 B55 B85 B140 B300	12 VDC/VAC 50/60Hz -0/+5%	
Série Modelo / Series Model	J4 S20 / B20	J4 S35 / B35	J4 S55 / B55	J4 S85 / B85	J4 S140 / B140	J4 S300 / B300
Tiempo maniobra sin carga / Operation time unload	10 Sec./90°	10 Sec./90°	13 Sec./90°	29 Sec./90°	25 Sec./90°	48 Sec./90°
Par máximo arranque / Maximum torque break	25 Nm / 221 lb/in	38 Nm / 359,3 lb/in	60 Nm / 530 lb/in	90 Nm / 796,3 lb/in	170 Nm / 1504,5 lb/in	350 Nm / 3097,5 lb/in
Par máximo operacional / Maximum operational torque	20 Nm / 177 lb/in	35 Nm / 309 lb/in	55 Nm / 486 lb/in	85 Nm / 752 lb/in	140 Nm / 1239 lb/in	300 Nm / 2655 lb/in
Tiempo bajo tensión / Duty rating	75%	75%	75%	75%	75%	75%
Ángulo máximo de maniobra / Max. Working angle	0° - 270°	0° - 270°	0° - 270°	0° - 270°	0° - 270°	0° - 270°
Interruptores final de carrera / Limit switch	4 SPST NO micro (2 motor stop and 2 confirmations)	4 SPST NO micro (2 motor stop and 2 confirmations)	4 SPST NO micro (2 motor stop and 2 confirmations)	4 SPST NO micro (2 motor stop and 2 confirmations)	4 SPST NO micro (2 motor stop and 2 confirmations)	4 SPST NO micro (2 motor stop and 2 confirmations)
Resistencia calefactora / Automatic heater	3,5 W	3,5 W	3,5 W	3,5 W	3,5 W	3,5 W
Conector grande / Big Plug	EN175301-803 FORM A	EN175301-803 FORM A	EN175301-803 FORM A	EN175301-803 FORM A	EN175301-803 FORM A	EN175301-803 FORM A
Conector pequeño / Small Plug	DIN43650/C	DIN43650/C	DIN43650/C	DIN43650/C	DIN43650/C	DIN43650/C
Grado protección IEC 60529 / Protection IEC 60529 rating	IP67	IP67	IP67	IP67	IP67	IP67
Temperatura / Temperature	-20°C +70°C -4°F +158°F	-20°C +70°C -4°F +158°F	-20°C +70°C -4°F +158°F	-20°C +70°C -4°F +158°F	-20°C +70°C -4°F +158°F	-20°C +70°C -4°F +158°F
Brida ISO 5211 / ISO 5211 Plate	Standard: F03/F04/F05 Optional: F07 *17mm	Standard: F03/F04/F05 Optional: F07 *17mm	F05/F07	F05/F07	Standard: F07/F10 Optional: F12	Standard: F07/F10 Optional: F12
Salida doble cuadrado DIN3337 DIN 3337 Female output drive	Standard: *14mm Optional: *9, *11mm	Standard: *14mm Optional: *9, *11mm	Standard: *17mm Optional: *11, *14mm	Standard: *17mm Optional: *14mm	Standard: *22mm Optional: *17mm	Standard: *22mm Optional: *17mm
Peso / Weight	1,8 Kg	1,9 Kg	2,4 Kg	3 Kg	5,2 Kg	5,2 Kg
OPTIONS						
J4C KIT DPS Posicionador digital J4C KIT DPS Digital positioner	4-20mA, 0-20mA, 0-10V or 1-10V	4-20mA, 0-20mA, 0-10V or 1-10V	4-20mA, 0-20mA, 0-10V or 1-10V	4-20mA, 0-20mA, 0-10V or 1-10V	4-20mA, 0-20mA, 0-10V or 1-10V	4-20mA, 0-20mA, 0-10V or 1-10V
J4C KIT BSR sistema retorno por batería J4C KIT BSR emergency fail safe kit system by battery	NC - NO	NC - NO	NC - NO	NC - NO	NC - NO	NC - NO
Potenciometro digital / Digital potentiometer	1K, 5K, 10k	1K, 5K, 10k	1K, 5K, 10k	1K, 5K, 10k	1K, 5K, 10k	1K, 5K, 10k
Actuador con 3 posiciones / 3 position actuator	0°-45°-90°, 0°-90°-180°	0°-45°-90°, 0°-90°-180°	0°-45°-90°, 0°-90°-180°	0°-45°-90°, 0°-90°-180°	0°-45°-90°, 0°-90°-180°	0°-45°-90°, 0°-90°-180°

table of consumptions

Voltage	J4 S20 / B20					J4 S35 / B35					J4 S55 / B55					J4 S85 / B85					J4 S140 / B140					J4 S300 / B300										
	Unload		Max. Operational Torque 20Nm		Max. Torque Break 25Nm		Unload		Max. Operational Torque 35Nm		Max. Torque Break 38Nm		Unload		Max. Operational Torque 55Nm		Max. Torque Break 60Nm		Unload		Max. Operational Torque -85Nm		Max. Torque Break -90Nm		Unload		Max. Operational Torque -140Nm		Max. Torque Break -170Nm		Unload		Max. Operational Torque -300Nm		Max. Torque Break -350Nm	
	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W	A	W		
12 VDC	0,75	9,06	1,80	21,60	1,95	23,36	0,75	9,06	2,38	28,62	2,62	31,50	0,70	8,45	3,04	36,43	3,42	41,05	0,62	7,42	2,11	25,34	2,28	27,32	1,93	23,10	4,73	56,76	5,39	64,68	1,32	15,84	5,17	62,04	5,45	65,34
24 VDC	0,45	10,77	0,90	21,49	0,97	23,39	0,45	10,77	1,28	30,78	1,37	32,79	0,42	10,19	1,55	37,17	1,63	39,02	0,36	8,55	1,08	25,87	1,22	29,30	0,66	15,84	2,15	51,48	2,53	60,72	0,50	11,88	2,31	55,44	2,70	64,68
48 VDC	0,21	9,93	0,42	20,38	0,46	22,07	0,21	9,93	0,56	26,72	0,59	28,20	0,20	9,72	0,61	29,25	0,67	32,31	0,17	8,24	0,48	22,92	0,53	25,56	0,30	14,25	0,88	42,24	1,10	52,80	0,22	10,56	1,10	52,80	1,19	57,02
110 VDC	0,07	8,00	0,13	14,30	0,14	15,70	0,07	7,70	0,17	18,90	0,18	20,10	0,07	7,50	0,19	20,80	0,21	23,20	0,05	5,80	0,14	15,20	0,16	17,90	0,10	10,89	0,28	30,25	0,39	42,35	0,09	9,68	0,33	36,30	0,39	42,35
12 VAC	1,04	12,51	1,85	22,18	2,28	27,32	1,04	12,51	2,75	33,00	3,19	38,28	0,94	11,30	3,43	41,18	3,78	45,41	0,81	9,69	2,38	28,51	2,65	31,81	2,75	33,00	6,60	79,20	8,47	101,64	1,98	23,76	7,26	87,12	8,64	103,62
24 VAC	0,59	14,20	1,12	26,77	1,28	30,62	0,59	14,20	1,58	37,80	1,67	40,13	0,58	13,89	1,87	44,88	1,98	47,52	0,50	11,88	1,36	32,74	1,50	36,01	0,83	19,80	2,59	62,04	3,30	79,20	0,66	15,84	2,75	66,00	3,30	79,20
48 VAC	0,34	16,37	0,69	33,16	0,75	36,22	0,34	16,37	0,92	44,04	0,99	47,31	0,33	15,73	1,10	52,80	1,21	58,29	0,25	11,83	0,77	37,07	0,86	41,18	0,48	23,23	1,43	68,64	1,79	86,06	0,36	17,42	1,65	79,20	1,87	89,76
110 VAC	0,14	15,73	0,27	29,52	0,30	32,67	0,14	15,73	0,36	39,45	0,38	41,87	0,14	15,73	0,40	43,80	0,43	46,95	0,12	12,83	0,31	33,64	0,33	36,54	0,23	25,41	0,63	68,97	0,72	78,65	0,19	20,57	0,66	72,60	0,77	84,70
240 VAC	0,10	23,76	0,15	36,43	0,16	39,07	0,10	23,76	0,19	45,41	0,20	47,52	0,09	22,70	0,20	47,52	0,21	50,16	0,08	20,06	0,17	40,13	0,18	42,77	0,18	42,24	0,39	92,40	0,44	105,60	0,15	36,96	0,42	100,32	0,47	113,52

external wiring

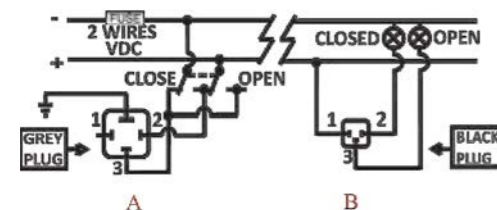
ABRE - CIERRA 3 CABLES / 3 WIRES ON - OFF



A = Alimentación eléctrica / Power supply plug
 A: VAC 3 CABLES (Conector gris) / VAC 3 WIRES (Grey plug)
 PIN 1 = Neutral + PIN 2 = Phase = Cierra / Close
 PIN 1 = Neutral + PIN 3 = Phase = Abre / Open
 A: VDC 3 CABLES (Conector gris) / VDC 3 WIRES (Grey plug)
 PIN 1 = (-) Negative + PIN 2 = (+) Positive = Cierra / Close
 PIN 1 = (-) Negative + PIN 3 = (+) Positive = Abre / Open

B = Contactos auxiliares / Volt free contact, plug
 PIN 1 / PIN 2 = Cierra / Close
 PIN 1 / PIN 3 = Abre / Open

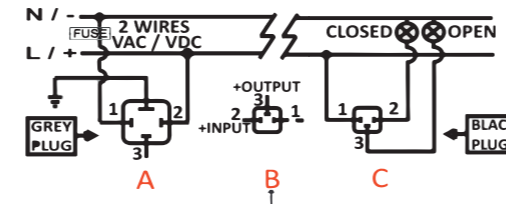
ABRE - CIERRA 2 CABLES / 2 WIRES ON - OFF



A = Alimentación eléctrica / Power supply plug
 A: VDC 2 CABLES (Conector gris) / VDC 2 WIRES (Grey plug)
 PIN 2 = (+) Positive + PIN 3 = (-) Negative = Cierra / Close
 PIN 2 = (-) Negative + PIN 3 = (+) Positive = Abre / Open

B = Contactos auxiliares / Volt free contact plug
 PIN 1 / PIN 2 = Cierra / Close
 PIN 1 / PIN 3 = Abre / Open

POSICIONADOR / POSITIONER



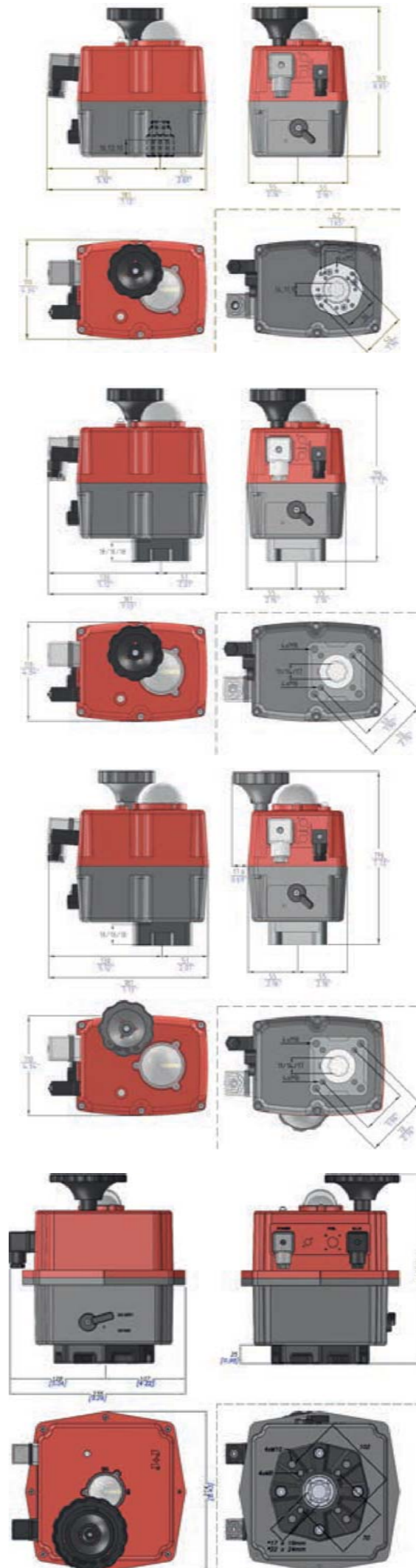
A = Alimentación eléctrica / Power supply plug
 A: VAC 2 CABLES (Conector gris) / VAC 2 WIRES (Grey plug)
 PIN 1 = Neutral + PIN 2 = Phase = Alimentación eléctrica / Power supply plug
 A: VDC 2 CABLES (Conector gris) / VDC 2 WIRES (Grey plug)
 PIN 1 = (-) Negative + PIN 2 = (+) Positive = Alimentación eléctrica / Power supply plug

B = Señal de instrumentación / Instrumentation Signal
 B: Señal de entrada: 4/20mA or 0/10V / Input signal: 4/20mA or 0/10V
 PIN 1 = (-) Negative + PIN 2 = (+) Positive = Señal de entrada / Input signal
 PIN 1 = (-) Negative + PIN 3 = (+) Positive = Señal de salida / Output signal
 C = Contactos auxiliares / Volt free contact plug
 PIN 1 / PIN 2 = Cerrado / Closed
 PIN 1 / PIN 3 = Abierto / Open



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The specifications and performance of the actuator are nominal and it is understood that its application will be in accordance with industry standards. For applications and working conditions that exceed the general specifications please contact to the distributor.
 J.J. BCN INTERNACIONAL, S. A. is not responsible for any harm resulting from the misapplication or outside norms for which the actuator has been designed. For the correct calculation of the model of actuator to apply according to the valve torque, always bear in mind that you must join the safety coefficient to the nominal torque of the valve.



J4 20/35



J4 55

J4 85

J4 140/300



factory options

- **DPS** digital positioner: 4-20mA, 0-20mA, 0-10V or 1-10V
- **BSR** Battery system returns
- Digital potentiometer: 1K, 5K or 10K
- 3 position actuator: 0°-45°-90° or 0°-90°-180°
- Interface plug
-  **Modbus** interface module wired or Wifi
-  Bluetooth module
- Other options on request



self-mounting kits



Interface System

Using the Interface Kit cable we communicate with the actuator, read parameters and change the actuators configuration.



Battery System Returns

BSR system for our 20Nm to 85Nm models. It is an emergency fail safe kit system by battery which is common to both S and B models. The BSR system for our models 140Nm and 300Nm is the same but with a bigger capacity battery.



Digital Positioner System 20-85

Digital positioner for our models from 20Nm to 85Nm. Instrumentation signal 4-20mA, 0-20mA, 0-10V or 1-10V signal. This DPS digital positioner is suitable for S and B models.



Digital Positioner System 140-300

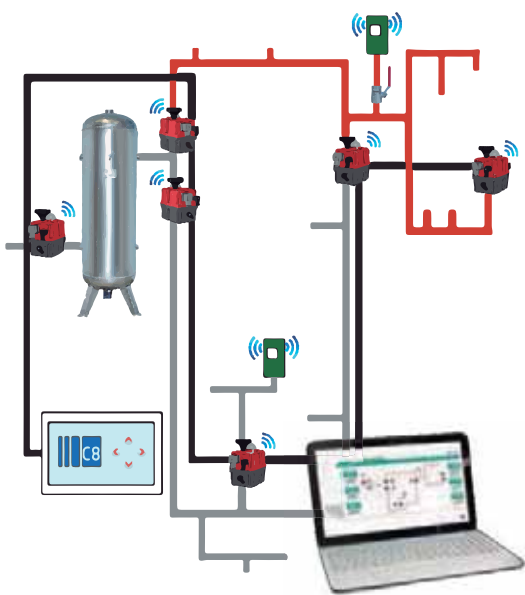
Digital positioner for our models 140Nm and 300Nm. Instrumentation signal 4-20mA, 0-20mA, 0-10V or 1-10V signal. This DPS digital positioner is suitable for S and B models.

infographic bluetooth technology



We have introduced the BLUETOOTH communication system in our actuators, in order to communicate with our actuators, from any IOS or ANDROID devices. This system appears in our catalogue as a factory option. From our mobile phone or tablet we could order our actuator to open/close or stop, we could be informed about its status, read parameters, know about errors or incidences, etc. The communication between our devices is protected by a password. Via BLUETOOTH we could identify and communicate with up to 50 devices within a max distance of 20m.

Modbus technology



MODBUS system

- Plug and Play.
- Each device could be operated manually.
- Could be seen from the control panel, tablet, mobile, PC, either inside or outside of the plant.
- Fast and flexible, starting by 3 actuators up to 32.



- Up to 1.200 m distance range.
- Locally connect the device and communicate with a data cable.
- Could name the devices, make a plant synoptic, send alarm mails.

Wireless system

- Plug and Play.
- Each device could be operated manually.
- Could be seen from the control panel, tablet, mobile, PC, either inside or outside of the plant.
- Fast and flexible, starting by 3 actuators up to 32.
- From 50m up to 1.600 m distance range without repeaters.
- Each device is emitting and receiving at the same time, creating a communication mesh, which enables the device to avoid walls or interferences.
- Under 802.15.4 protocol.
- Up to 12 bands of communication, which allow a change of band in case of saturation.



certifications

	ENSAYOS / TESTS	NORMAS / STANDARD	DIRECTIVAS / DIRECTIVES
	Seguridad Eléctrica Electric Safety	2014/35/UE (LVD) Low Voltage Directive	UNE-EN 60204-1:2007+Corr:2010
	Compatibilidad Electromagnética. Emisiones Electromagnetic Compatibility. Emissions	2014/30/UE (E.M.C.)	UNE-EN 61000-6-2:2006+E:2009
	Compatibilidad Electromagnética. Inmunidad Electromagnetic Compatibility. Immunity	2006/42/CE	UNE-EN 61000-6-4:2007+E:2008+/A1:2011
	Declaración Original de Incorporación para Cuasi Máquinas Original Declaration of Incorporation of Partly Completed Machinery		Artículos / Articles: 1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.6, 1.3.1, 1.3.7, 1.5.1, 1.6.3, 1.7.1, 1.7.3, 1.7.4
	Grados de protección proporcionados por las envolventes Degrees of protection provided by enclosures	IEC 60 529:2001 (Ed.:2.1) UNE 20324:1993 + 1M:2000 + ERR: 2004	2006/95/CE (Electric Safety, Low Voltage Directive, LVD) 2001/95/CE (Products General Safety)
	Ensayos vibración Vibration test	UNE-EN 60068-2-6:2008	UNE-EN 60068-2-6:2008



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J.J. BCN INTERNACIONAL, S.A. reserves the right to change or modify the design, technical details or construction of the products of this catalogue without prior notice.

GUARANTEE

J+J actuators are warranted against defects of workmanship or assembly as follows:
J4C S/B Series: up to 60.000 working cycles or 3 years from their shipment date. Working conditions of a 75% of duty. Max number of 50 limiter function activations, within 3 years of the warranty period.

The actuator identification label should be legible and easily allow the actuator identification. This is compulsory in all cases. OUR WARRANTY INCLUDES SOLELY AND EXCLUSIVELY THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PARTS IN OUR WORKSHOP OR IN THE PLACEMENT OF THE INSTALLATION, AND DOES NOT COVER INDEMNIFICATIONS OR OTHER EXPENSES. The warranty will be void if the device has been opened, if the defects are the result of the misuse or if our products have been handled, repaired or modified outside our workshop or have been installed with materials or by methods not in accordance with our STANDARDS.

The party alleging the existence of a defect of workmanship shall accredit the suitable use of the product and, if appropriate the correct installation of the same. The expenses of the return and reshipment of the defective materials will be for the account of the buyer.



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