ABB i-bus® KNX

Blind/Roller Shutter Actuators with travel detection and manual operation 4-fold, 24 V DC, MDRC JRA/S 4.24.5.1, 2CDG 110 128 R0011

JRA/S 4.24.5.1

2CDC 071 019 S0011

The 4-fold Blind/Roller Shutter Actuator is used to automatically control independent 24 V DC drives, for positioning blinds, roller shutters, awnings and other shading products via ABB i-bus® KNX. The devices are also used, for example, to control doors, windows and ventilation flaps. The travel times of the drives are automatically determined via end position detection and stored.

The devices do not require an auxiliary voltage.

The outputs can be directly controlled on the device using the manual push buttons. The LEDs on the front of the device signal the status of the outputs.

Individual outputs can be copied or exchanged to reduce the programming effort.

The Blind/Roller Shutter Actuator is a modular installation device for installation in the distribution board on 35 mm mounting rails. The connection to the ABB i-bus® is implemented via bus connection terminals.

Technical data

Supply	Operating voltage	21…30 V DC, via KNX
	Current consumption KNX	< 12 mA
	Power consumption KNX	maximum 250 mW
Outputs	Number of outputs (UP/DOWN or +/-)	4
		Potential distribution with UP/DOWN telegram:
		Output A B C D Terminal No. 1 2 3 4 6 7 8 9 Potential at DOWN telegram - + - + - + - + Potential at UP telegram + - + - + - + -
	U_N rated voltage	maximum 24 V DC
	I_N rated current	6 A
	Current detection for travel detection	> 300 mA
	Maximum switching current	6 A (AC1/AC3) at 230 V AC or 6 A (AC1/AC3) at 400 V AC
	Minimum switching current	100 mA at 5 V or 10 mA at 10 V or 1 mA at 24 V
	Leakage loss per device at max. load	< 4 W
Connections	Drives (terminals output A…X)	2 universal head screw terminals per output (UP/DOWN)
	Load circuit (+/-)	2 universal head screw terminals single-core 0.2…6 mm², stranded 0.2…4 mm²
	Screw terminal conductor cross-section	Flexible with ferrules without/with plastic sleeves 0.25…4 mm²
	Tightening torque	maximum 0.6 Nm
	ABB i-bus® KNX	Bus connection terminal (black/red), 0.8 mm Ø, single-core

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Operating and display elements	Button/LED	For assignment of the physical address
	Button and LED	For toggling between manual operation/ operation via ABB i-bus® and displays
	Buttons and LEDs Two buttons and LEDs per output	For control (move UP/DOWN, slat OPEN/ CLOSE) of the output and status display
Enclosure	IP 20	To EN 60 529
Safety class	II, in the installed state	To EN 61 140
Isolation category	Overvoltage category	III to DIN EN 60 664-1
	Pollution degree	2 to DIN EN 60 664-1
KNX safety extra low voltage	SELV 24 V DC	
Temperature range	Operation	-20 °C…+45 °C
	Storage	-25 °C…+55 °C
	Transport	-25 °C…+70 °C
Ambient conditions	Maximum air humidity	93 %, no condensation allowed
Design	Modular installation device (MDRC)	Modular installation device, Pro *M*
	Dimensions (H x W x D) in mm	90 x 72 x 64.5
	Mounting width in space units (modules at 18 mm)	4
	Mounting depth	64.5
Weight without packaging	in kg	0.25
Installation	On 35 mm mounting rail	To EN 60 715
Mounting position	As required	
Housing/colour	Plastic housing, grey	Halogen free
Approvals	KNX to EN 50 090-1, -2	Certification
CE mark	In accordance with the EMC guideline and low voltage guideline	

Device type	Application	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
JRA/S 4.24.5.1	Blind/Roller Shutter 4f 24V Travel Detection M/…*	129	255	255

* … = current version number of the application. **Please observe the software information on our homepage for this purpose.**

Note

For a detailed description of the application see *"Blind/Roller Shutter Actuators JRA/S"* product manual. It is available free-of-charge at *www.abb.com/knx*.

The ETS and the current version of the device application are required for programming.

The current version of the application is available for download on the internet at *www.abb.com/knx*. After import in the ETS, it is available in the ETS under *ABB/Blind/Switch*.

The device does not support the closing function of a KNX device in the ETS. If you inhibit access to all devices of the project with a *BCU code*, it has no effect on this device. Reading out data and programming is still possible.

Important

When electronic drives are used, the closed circuit current may not exceed 150 mA, as otherwise the automatic travel detection function may not function correctly. In this case, the travel times for the drives must be determined manually and entered into the ETS parameters.

Electronic drives with soft start or soft stop are not suitable for the control via JRA/S.

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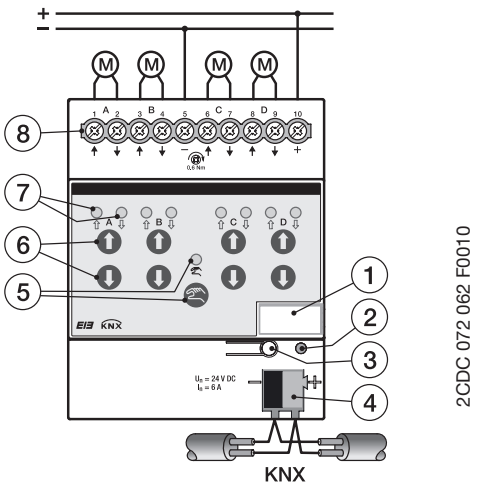
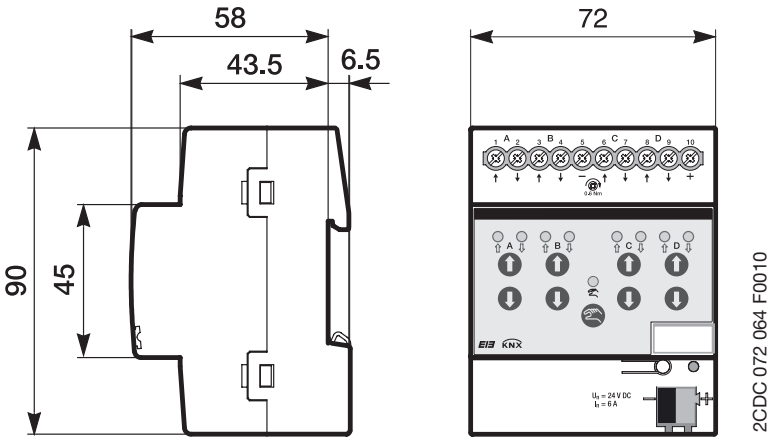
Circuit diagram JRA/S 4.24.5.1



1 Label carrier
2 LED
3 Button
4 Bus connection terminal ABB i-bus® KNX
5 Button and LED
6 Button (2 per output)
7 LEDs (2 per output, yellow)
8 Screw terminals (UP/DOWN, U_N)

Dimension drawing JRA/S 4.24.5.1



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Notes