Technical data 2CDC506XXXD0201

ABB i-bus® KNX
Blind/Roller Shutter Actuator with Binary Inputs
JRA/S 6.230.3.1, 2CDG110208R0011

Description of product

The Blind/Roller Shutter Actuator with Binary Inputs is a modular installation (MDRC) device in Pro *M* design. It is intended for installation in the distribution board on 35 mm mounting rails. Physical address assignment and device parametrization are carried out using ETS and the current application.

The JRA/S 6.230.3.1 is powered via the ABB i-bus® and does not require an additional auxiliary voltage supply.

The device is ready for operation after connecting the bus voltage.

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Power supply	Bus voltage	21…32 V DC
	Current consumption, bus	Maximum 12 mA (Fan-in 1)
	Leakage loss, bus	Maximum 250 mW
	Leakage loss, device	Maximum 4.8 W *
* The maximum power consumption of the device results from the following specifications:	Relay 6 A	0.8 W
	Blind output	6 x 6 A, AC3, 250 V AC
Connections	KNX	Via bus connection terminals, 2-fold (red/black) 0.8 mm Ø, single core
	Circuits	Screw terminal with universal head (PZ 1)
		0.2…4 mm² stranded, 2 x (0.2…2.5 mm²)
		0.2…6 mm² single core, 2 x (0.2…4 mm²)
	Ferrules without/with plastic sleeves	without: 0.25…2.5 mm²
		with: 0.25…4 mm²
	TWIN ferrules	0.5…2.5 mm²
	Tightening torque	Max. 0.6 Nm
Operating and display elements	Push button/LED	For assignment of the physical address
Protection degree	IP 20	To DIN EN 60 529
Protection class	II	To DIN EN 61 140
Isolation category	Overvoltage category	III according to EN 60 664-1
	Pollution degree	2 to EN 60 664-1
KNX safety extra low voltage	SELV 24 V DC	
Temperature range	Operation	-5 °C…+45 °C
	Transport	-25 °C…+70 °C
	Storage	-25 °C…+55 °C
Ambient conditions	Maximum air humidity	93 %, no condensation allowed
Design	Modular installation device (MDRC)	Modular installation device, Pro *M*
	Dimensions	90 x 216 x 64.5 mm (H x W x D)
	Mounting width in space units	12 x 18 mm modules
	Mounting depth	64.5 mm
Installation	On 35 mm mounting rail	To DIN EN 60 715
Mounting position	any	
Weight	0.55 kg	
Housing/color	Plastic housing, gray	
Approvals	KNX to EN 50 090-1, -2	Certification
CE marking	In accordance with the EMC directive and low voltage directive	

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Binary inputs

Rated values	Number	12[1]
	U_n scanning voltage	32 V, pulsed
	I_n scanning current	0.1 mA
	I_n scanning current when switching on	Maximum 355 mA
	Permitted cable length	≤ 100 m one-way, at cross-section 1.5 mm² even when the core is routed in a multi-control cable

[1] All binary inputs are internally connected to the same potential.

Rated current output 6 A

Rated values	Number	6 or 12 contacts
	U_n rated voltage	250/440 V AC (50/60 Hz)
	I_n rated current (per output)	6 A
Switching currents	AC3* operation (cos φ = 0.45) To EN 60 947-4-1	6 A/230 V
	AC1* operation (cos φ = 0.8) To EN 60 947-4-1	6 A/230 V
	Fluorescent lighting load as per DIN EN 60 669-1	6 A/250 V (35 µF)[2]
	Minimum switching capacity	20 mA/5 V
		10 mA/12 V
		7 mA/24 V
	DC current switching capacity (resistive load)	6 A/24 V=
Service life	Mechanical service life	> 10^7
	Electronic service life To IEC 60 947-4-1	
	AC1* (240 V/cos φ = 0.8)	> 10^5
	AC3* (240 V/cos φ= 0.45)	> 1.5 x 10^4
	AC5a* (240 V/cos φ = 0.45)	> 1.5 x 10^4
Switching times[1]	Maximum relay position change per output and minute if only one relay is switched.	2,683

[1] The specifications apply only after the bus voltage has been applied to the device for at least 10 seconds. The typical relay delay is approx. 20 ms.

[2] The maximum inrush-current peak may not be exceeded, see Lamp load output 6 A.

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Lamp load output 6 A		
Lamps	Incandescent lamp load	1200 W
Fluorescent lamps T5/T8	Uncompensated	800 W
	Parallel compensated	300 W
	DUO circuit	350 W
Low-voltage halogen lamps	Inductive transformer	800 W
	Electronic transformer	1000 W
	Halogen lamps 230 V	1000 W
Dulux lamp	Uncompensated	800 W
	Parallel compensated	800 W
Mercury-vapor lamp	Uncompensated	1000 W
	Parallel compensated	800 W
Switching capacity (switching contact)	Maximum peak inrush current I_p (150 µs)	200 A
	Maximum peak inrush current I_p (250 µs)	160 A
	Maximum peak inrush current I_p (600 µs)	100 A

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Device type	Application	Max. number of group objects	Max. number of group addresses	Max. number of associations
JRA/S 6.230.3.1	Shutter Actuator binary input 6f12f/...	255	255	255

* ... = Current version number of the application. **Please refer to the software information on our website for this purpose.**

Note

Please refer to the *JRA/S 6.230.3.1 Blind/Roller Shutter Actuator with Binary Inputs* product manual for a detailed description of the application. It is available free of charge at *www.abb.com/knx*.

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

The current application program is available for download at *www.abb.com/kn*x. After import in the ETS, it is available in the ETS under *ABB/Blind/Switch*.

The device does not support the locking function of a KNX device in ETS. If you use a *BCU code* to inhibit access to all the project devices, this has no effect on this device. Data can still be read and programmed.

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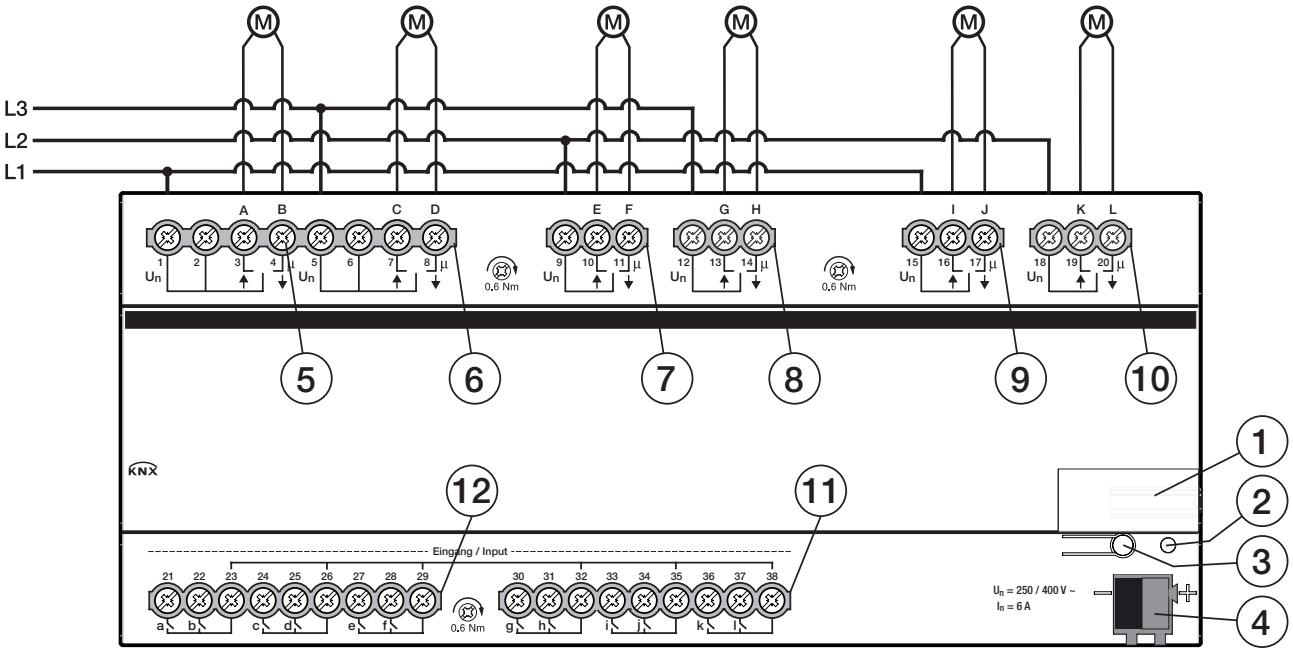
Connection



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1 Label carrier
2 *Programming* button
3 *Programming* LED
4 Bus connection terminal
5 Blind/shutter (A, B)
6 Blind/shutter (C, D)
7 Blind/shutter (E, F)
8 Blind/shutter (G, H)
9 Blind/shutter (I, J)
10 Blind/shutter (K, L)
11 Binary inputs (g, h, i, j, k, l)
12 Binary inputs (a, b, c, d, e, f)

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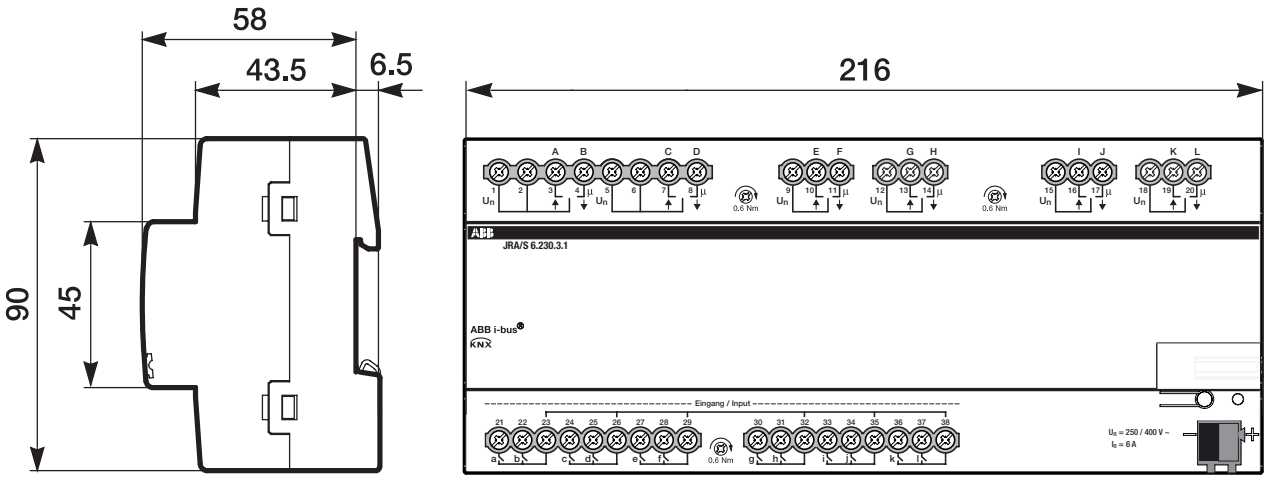
Dimension drawing



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