ABB i-bus® KNX

Binary Input with manual operation, 8-fold, 230 AC/DC, MDRC, 2CDG 110 093 R0011

BE/S 8.230.2.1

2CDC 071 012 F0010

The 8-fold Binary Input BE/S 8.230.2.1 with manual operation is a modular installation device for installation in distribution boards. The device is suitable for detection of 10…230 V AC/DC signals.

Buttons for manual operation, which can be used to simulate the input state are located on the front. The current status of the inputs is indicated via yellow LEDs.

The device is ready for operation after connecting the bus voltage.
The Binary Input is parameterized via ETS. The connection to the KNX is implemented using the bus connection terminal on the front.

Technical data

Supply	Bus voltage	21…32 V DC
	Current consumption, bus	Maximum 6 mA
	Power consumption, Bus	Maximum 120 mW
	Leakage loss, bus	Maximum 1.5 W at AC operation Maximum 3.0 W at DC operation
Inputs	Number	8 individual
	Permissible voltage range Un	0…265 V AC / DC
	Input current In	Maximum 1 mA
	Signal level for 0 signal	0…2 V AC / DC
	Signal level for 1 signal	7…265 V AC / DC
	Permissible cable length	Maximum 100 m at 1.5 mm²
Connections	KNX	Via bus connection terminals
	Inputs	Via universal head screw terminals (PZ 1)
Bus connection terminals	Screw terminal	Screw terminals 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 Contact pin length at least 10 mm
	Tightening torque	Maximum 0.8 Nm
	Grid	6.35
Operating and display elements	*Programming* Button *Programming* LED	For assignment of the physical address
	Button 🕭 /LED 🕭	For toggling between manual operation/ operation via ABB i-bus® and displays
	Button Ⓐ /LED 🔆 (applies for all Binary Inputs, A…H)	For switching and display
Enclosure	IP 20	To DIN EN 60 529
Safety class	II	To DIN 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	-5 °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	90 x 72 x 67.5 mm (H x W x D)
	Mounting width in space units	4 modules at 18 mm
	Mounting depth	67.5 mm
Installation	On 35 mm mounting rail	To DIN EN 60 715
Mounting position	As required	
Weight	0.2 kg	
Housing/colour	Plastic housing, grey	
Approvals	KNX to EN 50 090-1, -2	Certification
CE mark	In accordance with the EMC guideline and low voltage guideline	

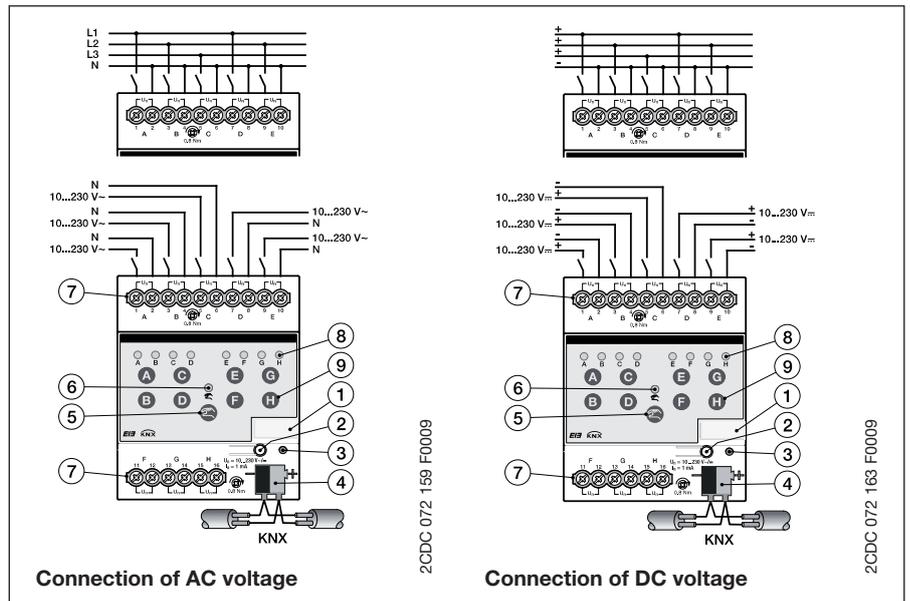| Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
BE/S 8.230.2.1	Binary 8f 23021/...*	83	254	254
* … = current version number of the application program				

5

Note

For a detailed description of the application program see „Binary Inputs"
product manual.
It is available free-of-charge at *www.ABB.de/KNX*.

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

The current version of the application program is available for download on the
Internet at *www.abb.com/knx*. After import it is available in the ETS under
ABB/Input/Binary input 8-fold.

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. Data can still be read and programmed.

ABB i-bus® KNX

Binary Input with manual operation, 8-fold, 230 AC/DC, MDRC, 2CDG 110 093 R0011

**Circuit diagram
BE/S 8.230.2.1**

Connection of AC voltage

2CDC 072 159 F0009

Connection of DC voltage

2CDC 072 163 F0009

1 Label carrier
2 *Programming* button
3 *Programming* LED
4 Bus connection terminal
5 *Manual operation* 🖐 button

6 *Manual operation* 🖐 LED
7 Connection terminals
8 *Binary input* 🔲 LED
9 *Binary input* 🔲 button

Important
When AC voltage is connected, up to eight separate RCD (earth-leakage circuit breaker) circuits can be connected.

Important
Please observe the correct polarity when connecting DC voltage!
The input cannot be read and processed if incorrectly connected.

Important
Use of switch or a push-in inserts with N terminals, in conjunction with the BE/S X.230.2.1 series Binary Inputs are absolutely necessary to ensure malfunction free operation and sufficient illumination of glow lamps on illuminated switches or plug-in inserts.

5

5

ABB i-bus® KNX   Binary Input with manual operation,
                       8-fold, 230 AC/DC, MDRC, 2CDG 110 093 R0011

Dimension drawing
BE/S 8.230.2.1