ABB i-bus® KNX

Binary Input with manual operation, 8-fold, contact scanning, MDRC, 2CDG 110 092 R0011

BE/S 8.20.2.1

2CDC 071 011 F0010

The 8-fold Binary Input BE/S 8.20.2.1 with manual operation is a modular installation device for installation in distribution boards. The device is suitable for detection of floating contacts. The pulsed scanning voltage is generated internally.

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 7 mA
	Power consumption, Bus	Maximum 150 mW
	Leakage loss, bus	Maximum 150 mW
Inputs	Number	8
	Scanning voltage U_n	35 V, pulsed
	Scanning current I_n	0.1 mA
	Scanning current I_n at switch on	Maximum 355 mA
	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 8.20.2.1	Binary 8f 2021/...*	83	254	254
* … = current version number of the application program				

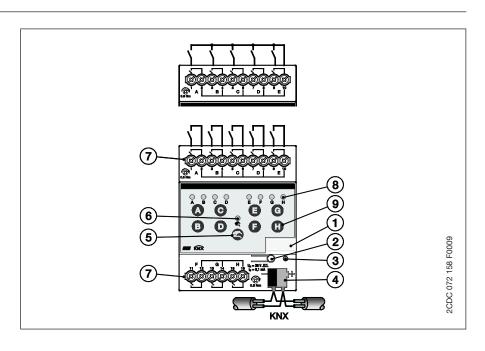| Note |
|---|
| For a detailed description of the application program see „Binary Inputs" product manual. It is available free-of-charge at *www.ABB.de/KNX*. |
| The ETS and the current version of the device application program are required for programming. |
| The current version of the application 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. |

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Circuit diagram
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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

Note
An external voltage connection to Binary Input BE/S 8.20.2.1 is not allowed.
Terminals 2, 4, 6, 8, 10, 12, 14 and 16 are internally interconnected.

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Dimension drawing
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