KBR
Energy Management

multisio   2D2-4DI

**Digital input
module**

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1 Functional description digital input module multisio 2D2-4DI

The hardware of the **multisio 2D2-4DI** supports 4 analog inputs, 5 LEDs and a 8-way DIP switch.

If a switch connected to the digital input is closed, the module detects it as active.
An open switch is detected as passive.

Pay attention to the right polarity when connecting electronic switches.

The 4 input LEDs indicate the states of the digital inputs, the power LED shows, whether or not operating voltage is supplied.

The **multisio 2D2-4DI** manages the digital inputs using two selectable methods. Each input can be configured individually as a pulse counter input or state controlled input.

The module can be accessed by a master device (multisio with module bus, multicomp with module bus or via computer with VE via Multigate ES/BS) using the KBR eBUS.

The master device has to configure the module and read out the data acquired by the module
for further processing.

The operating voltage is supplied via the module bus interface. The module cannot be used as a stand-alone unit.

2 Digital input module connection chart

Terminal assignment

Terminal 50: digital input 1 +
Terminal 51: digital input 1 -
Terminal 52: digital input 2 +
Terminal 53: digital input 2 -
Terminal 54: digital input 3 +
Terminal 55: digital input 3 -
Terminal 56: digital input 4 +
Terminal 57: digital input 4 -

IN / OUT: Module bus / supply voltage
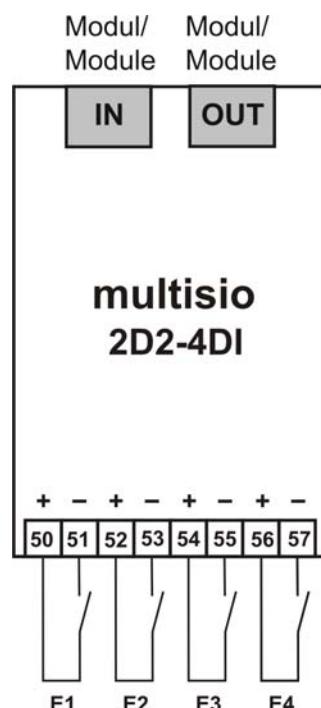
3   Digital input module LED display

In KBR eBUS scanning mode, all 4 input LEDs are flashing.
In the module detection mode, the input LEDs generate a running light.
A flashing LED shows that the respective digital input is set to manual operation.

Assignment:

LED1 for input 1
LED2 for input 2
LED3 for input 3
LED4 for input 4

Power LED on: Operating voltage supplied
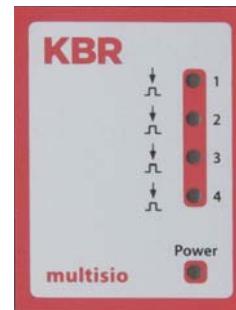
The LEDs at the digital input module indicate the current state of the digital input.
If the input is active, the LED is lit. If the input is passive, the LED is off.

4   Function of scan button

	Note
i	**If the scan button is pressed briefly, the module enters the scanning mode.**

Switch setting illustrated:

OFF   = white
ON   = gray
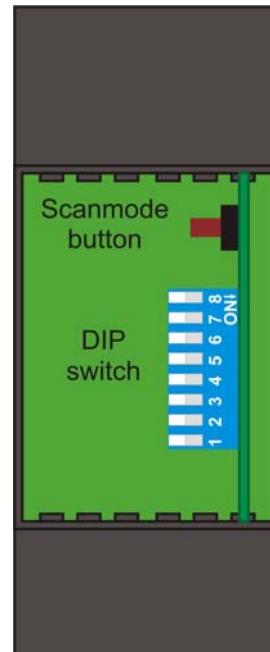
5   Function of the DIP switches

Manual operation:

Each input can be individually set to manual operation. If the DIP switch
of a channel is set to "OFF", the input state is accepted. If the DIP switch
of a channel is set to "ON", the input state is set to active, irrespective of
the actual input state.
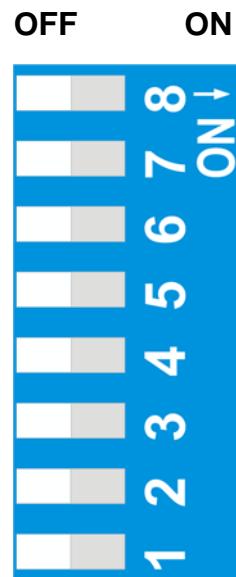
DIP	OFF	ON			
S8	automatic	address			Input 4
S7	automatic	address			Input 3
S6	automatic	manual			Input 2
S5	automatic	manual			Input 1
S4	no function	OFF		ON	Input 4
		passive / off		active / on	
S3	no function	passive / off		active / on	Input 3
S2	no function	passive / off		active / on	Input 2
S1	no function	passive / off		active / on	Input 1

6 Technical data

Power supply:	Via module bus	24VDC / ca. 2W
	Connection	Modular connector RJ12:6P6C
Hardware inputs:		
4 digital inputs	S_0 - compatible	< 2 mA = off, > 10 mA = on
	Output voltage	< 24 VDC, pay attention to polarity
	Output current	<= 15 mA
	Plug terminal 8-pole	
Module bus interface:	Serial port	RS485
	Module bus connection	RJ12 for ready-made KBR system cable, max. length 30 m when placed accordingly
	Transfer rate	38400 Bps
	Bus protocol	KBR module bus
Display:	LED	4x messages 1x operation display
Control unit	DIP switch	1x 8-input, programming of inputs
	Button	Scan button (module bus)
Mechanical data:		
Bus bar device	Housing dimensions	90 x 36 x 61 mm (H x W x D)
	Mounting type	Wall mounting on DIN rail, 7.5 mm deep in accordance with DIN EN 50022.
	Weight	approx. 70g
Standards and miscellaneous:		
Environmental conditions	Standards	DIN EN 60721-3-3/A2: 1997-07; 3K5+3Z11; (IEC721-3-3; 3K5+3Z11)
	Operating temperature	-5°C ... +55°C;
	Humidity	5% ... 95%, non-condensing
	Storage temperature	-25°C ... +70°C;
Electrical safety	Standards	DIN EN 61010-1/A2: 2001 + B1: 2002-11 + B2: 2004-1; (IEC1010-1/A2)
	Protection type	IP20 in accordance with DIN EN 40050 part 9:1993-05
	Electromagnetic compatibility	DIN EN 61000-6-3: 2001 + A11: 2004; (IEC61000-6-3) DIN EN 61000-6-2: 2001 (IEC61000-6-2)

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