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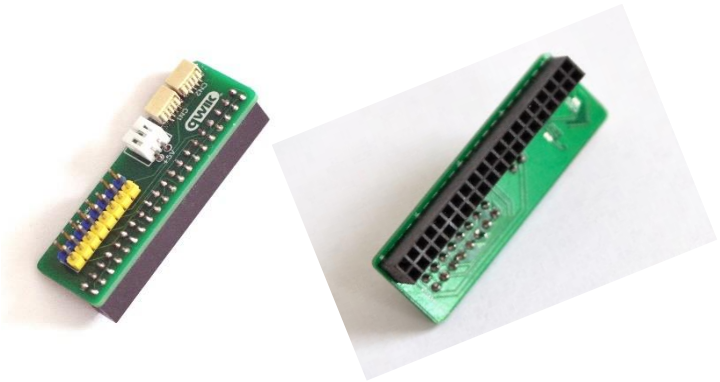
ALTERSTEP

RPi to mikroBUS™



This module is an adapter that allows you connect mikroBUS™ modules (such as MikroElekronika's Click®) to Raspberry Pi modules.

The top-side has:

- two Qwiic connectors for I^2C
- 5VDC connector
- mikroBUS™ Header

On the bottom-side of the module there are two jumpers that allow you to disconnect the 3V3 Qwiic (I2C) connectors from the 3V3 Raspberry Pi.

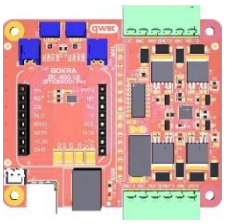
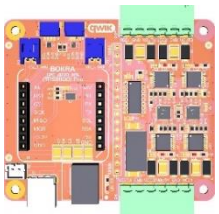
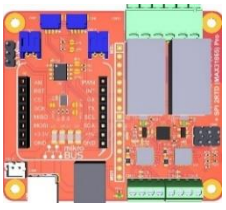
The correspondence of 40-pin Raspberry Pi connector and mikroBUS™ connectors is as follows:

Raspberry Pi	mikroBUS LEFT	Raspberry Pi	mikroBUS RIGHT
GPIO27	AN	GPIO13	PWM
GPIO22	RST	GPIO06	INT
GPIO08 (CS0)	CS	RXD0	RX
GPIO11 (SCK)	SCK	TXD0	TX
GPIO09 (MISO)	MISO	GPIO03 (SCL1)	SCL
GPIO10 (MOSI)	MOSI	GPIO02 (SDA1)	SDA
3.3V	3V3	5V	5V
Ground	GND		GND

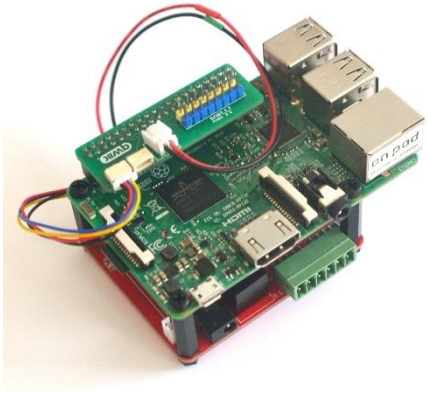
MikroElekronika™ manufactures numerous modules with mikroBUS™ interface - Click® modules.

All these modules can be easily connected directly to Raspberry Pi.

With **RPi to mikroBUS™** it is easy to use Raspberry Pi compatible modules to control the following Pro Series I/O modules:

Image	Name	Characteristics
	I2C 4AI ADS1x15 Pro	4 channels differential analog input based on 16-bit ADS1115 and 12-bit ADS1015 ADC. The two Texas Instruments ΔΣ (delta-sigma) ADCs installed on the module. Voltage measurement ranges: 0-0.5V, 0-5V, 0-10V, ± 0.5V, ± 5V, ± 10V. Current measurement ranges: 0-20mA, 4-20mA, ± 20mA, 0-40mA. Measurement speed: up to 860 measurements per second for ADS1115 and up to 3300 measurements per second for ADS1015.
	I2C 2RO+2AI Pro	2 Omron G5Q-14 relays and 2 analog input channels based on an ADC from Texas Instruments (either ADS1115-Q1 or ADS1015). Voltage measurement ranges: 0-0.5V, 0-5V, 0-10V, ± 0.5V, ± 5V, ± 10V. Current measurement ranges: 0-20mA, 4-20mA, ± 20mA, 0-40mA. Measurement speed: up to 860 measurements per second for ADS1115 and up to 3300 measurements per second for ADS1015.
	I2C 2RO+2DI Pro	2 Omron G5Q-14 relays and 2 digital input channels (based on Texas Instruments ISO1211). The modules allow you to enter the values of 2 digital signals, both DC and AC. Supports 9-V to 300-V DC and AC digital input. Compliant to IEC 61131-2; Type 1, 2, 3 characteristics for 24-V isolated digital inputs. Accurate Current Limit for Low-Power Dissipation: – 2.2 mA to 2.47 mA for Type 3. Maximum transient isolation voltage (up to 60s) – 3600V.
	I2C 4DO LS (BTS3160D) Pro	4 channels low-side digital output, based on BTS3160D.
	I2C 4DO HS (TPS1H100) Pro	4 channels high-side digital output, based on TPS1H100.
	I2C 2RO + SPI 2RTD Pro	2 Omron G5Q-14 relays and 2 digital input channels (based on Texas Instruments ISO1211).

You can also learn more about the **I2C 2RO + 2DI Pro** module on the IoThings Digital page at Crowd Supply.



Raspberry Pi 3, RPi to mikroBUS™ and IoThing Digital

RPi to mikroBUS™ schematic: