

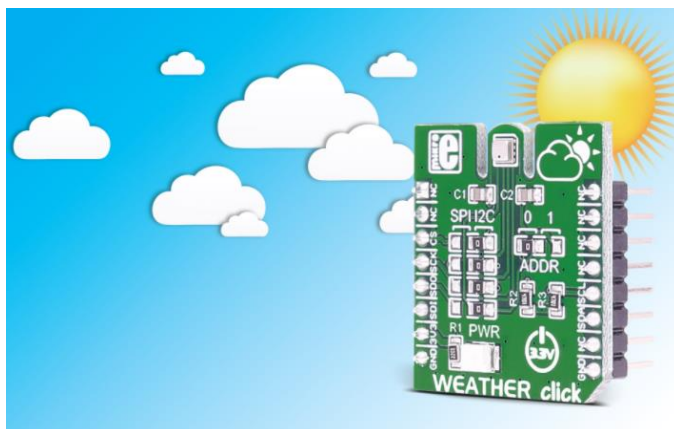
Weather click

MIKROE-1978

Weight: 29 g



Weather click carries [BME280](#) integrated environmental unit from Bosch. It's a sensor that detects humidity, pressure, and temperature, specifically designed for low current consumption and long-term stability. The click is designed to work on a 3.3V power supply. It communicates with the target microcontroller over SPI or I2C interface.



BME280 features

The BME280 is as combined digital humidity, pressure and temperature sensor based on proven sensing principles.


The BME280 IC has high accuracy and reliability for all three sensors. The humidity sensor has a response time of just one second and it's accurate up to $\pm 3\%$ RH. The pressure sensor has sensitivity error of $\pm 0.25\%$ which is equivalent to 1m at 400m height change). The humidity and pressure sensors can operate independently from each other. Finally, the temperature sensor has a high resolution (up to 20 bit, when IIR filter is enabled) and low noise. The chip has three operating modes: sleep, forced, and normal.

Specifications

Type	Enviromental combo
Applications	Context awareness, home automation control, personalized weather stations, sport and fitness tools and so on
On-board modules	Bosch BME280
Key Features	Three sensors in one: pressure, humidity, temperature. Humidity sensor response time: 1 sec. Multiple operating modes: sleep, force, normal
Key Benefits	Long term stability. Humidity and pressure sensors can operate independently. Fast response time
Interface	I2C,SPI
Input Voltage	3.3V
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)

Pinout diagram

This table shows how the pinout on **RS485 2 click** corresponds to the pinout on the mikroBUS™ socket (the latter shown in the two middle columns).

Notes	Pin					Pin	Notes
	NC	1	AN	PWM	16	NC	
	NC	2	RST	INT	15	NC	
Chip select	CS	3	CS	TX	14	NC	
SPI clock	SCK	4	SCK	RX	13	NC	
SPI Master Input Slave Output	MISO	5	MISO	SCL	12	SCL	I2C Clock
SPI Master Output Slave Input	MOSI	6	MOSI	SDA	11	SDA	I2C Data
Power supply	+3.3V	7	3.3V	5V	10	NC	
Ground	GND	8	GND	GND	9	GND	Ground

Jumpers and settings

Designator	Name	Default Position	Default Option	Description
JP1, JP2, JP3 and JP5	Interface Selection	Right	I2C	Jumpers for selection between I2C or SPI communications
JP4	ADDR	Left	Bit 0	I2C Address bit = 0