# DHT22 click™

1. Introduction
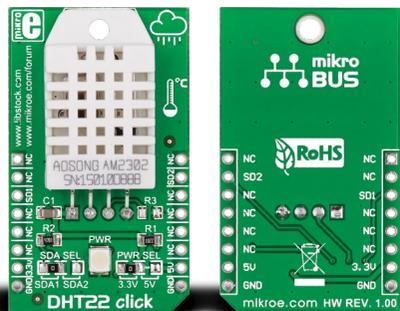
DHT22 click™ is a temperature and humidity measurement board carrying the AM2302 sensor (also known as DHT22). It's a low cost reliable sensor that communicates with the target board microcontroller through a **single Serial Data Line**. You can **choose between the mikroBUS™ CS or INT pins** for communicating with the target board microcontroller. The board is designed to use either a 3.3V or a 5V power supply.

2. Soldering the headers

Before using your click™ board, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.
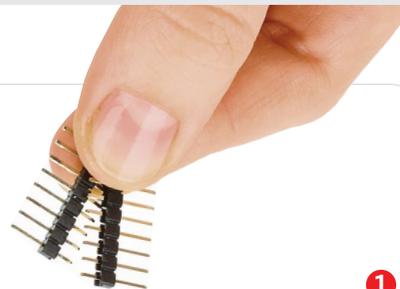
❷ Turn the board upside down so that the bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.
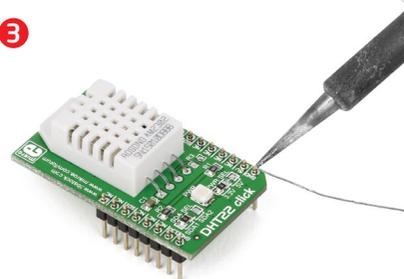
❸ Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.

3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into the desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all the pins are aligned correctly, push the board all the way into the socket.
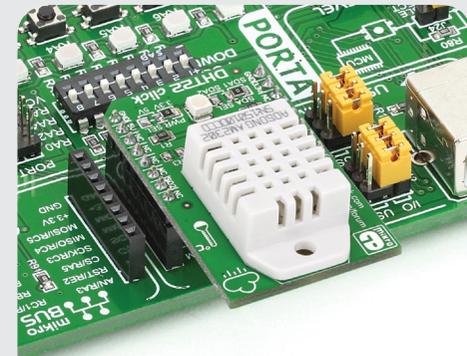
4. Essential features

The DHT22 click™ temperature and humidity sensor can detect temperatures between **-40 and 80 degrees centigrade with a half a degree precision (0.5C)**. The relative humidity measurement from **0-100% is accurate within 2%**. Both relative humidity and temperature data signals have a 16Bit resolution. To get accurate data you should set up the interval between individual sensor readings at least two seconds apart.

5. DHT22 click™ board schematic

AM2302

VDD SDA NC GND

VCC
C1
100nF
GND

VCC

VCC
R3
0R

VCC
R2
4K7

SDA

SDA1

J1

VCC
R1
2K2
LD1

J2
SDA1
SDA
SDA2

AN	PWM
RST	INT
CS	TX
SCK	RX
MISO	SCL
MOSI	SDA
+3.3V	+5V
GND	GND

SDA2

MIKROBUS DEVICE CONN.

6. Jumpers

DHT22 click™ has two jumpers (zero ohm resistors). **SDA SEL** lets you select either CS (SDA1) or INT (SDA2) for outputting the one wire signal. The **PWER SEL** jumper is for choosing between 3.3 and 5V power supplies.

7. Code examples

Once you have done all the necessary preparations, it's time to get your click™ board up and running. We have provided examples for mikroC™, mikroBasic™ and mikroPascal™ compilers on our **Libstock** website. Just download them and you are ready to start.

LIBSTOCK.com

8. Support

MikroElektronika offers **free tech support (www.mikroe.com/support)** until the end of the product's lifetime, so if something goes wrong, we're ready and willing to help!

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