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BN 2268134

# Sensor Expansion Board for micro:bit

**GB** Operating instructions

# Latest operating instructions

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## **Delivery contents**

· Sensor Expansion Board for micro:bit

# Description

The micro:bit is a powerful, low-cost, fully programmable single board computer developed by the BBC. It was designed to encourage children to actively engage in technical activities such as programming and electronics.

It features a 5x5 LED matrix, two integrated buttons, a compass, an accelerometer and Bluetooth®.

It supports the graphical programming interface PXT (Make-Code). This can be used on Microsoft Windows®, MacOS, iOS, Android™ and many other operating systems without downloading an additional compiler.

The additional board has been specially developed for the micro:bit single board computer. The board guides the pins of the micro:bit onto pin strips. This allows you to easily connect sensors, actuators or your own circuits using jumpers.

In addition, the board has its own voltage regulator, which enables the micro:bit to operate with an external power supply of between 4.75 and  $12\ V/DC$ .

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

# Requirements

The following components are required to use the board:

1 micro:bit, e.g. Conrad item no.: 2253828

#### **Product features**

- · 1x slot for micro:bit single board computer
- 4x 2.8 mm holes for mounting
- 5x pin strips with 3 contacts each (G, V, S) for sensors
- 1x pin strip for I2C
- 1x pin strip for SPI
- 1x pin strip for UART
- 1x AMS1117 voltage regulator
- · Screw terminals for external power supply

#### Hardware

The pin strips are marked as follows:

- G GND (ground)
- V +3 V/DC
- S Signal (micro:bit pin)

The pin assignment of the inputs/outputs corresponds to the markings on the circuit board.

## Operation

Insert the micro:bit into the slot provided on the circuit board. The 5x5 LED matrix must be aligned in such a way that you can read the markings on the circuit board.

The external power supply is connected to the VIN (4.75 - 12 V/DC) and GND connections. This also supplies the micro:bit with power.

# Disposal



Electronic devices are recyclable waste and must not be placed in household waste. At the end of its service life, dispose of the product in accordance with the applicable regulatory guidelines.

You thus fulfil your statutory obligations and contribute to protection of the environment.

#### Technical data

Power supply for screw terminals	4.75 – 12 V/DC
Pin spacing of pin strip (width)	2.54 mm
Mounting holes Ø	2.8 mm
Dimensions (W x H x D)	57 x 12 x 66 mm
Weight	28 a

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