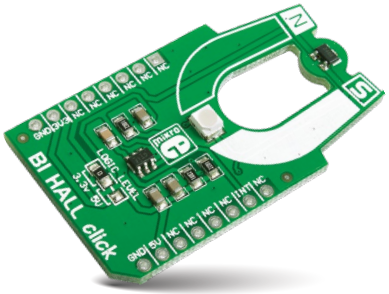
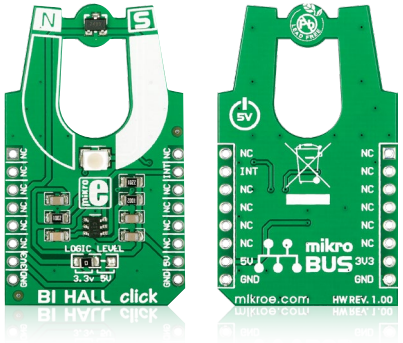


BI HALL click™

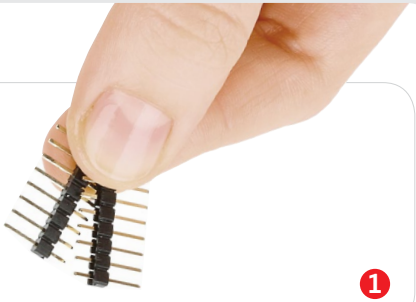
1. Introduction



BI HALL click™ is a simple solution for adding a bipolar Hall switch to your design. It carries the Melexis US2882 bipolar Hall-effect switch and a 74LVC1T45 single bit, dual supply transceiver. BI HALL click™ communicates with the target board through the mikroBUS™ INT line. The board is designed to use either a 3.3V or 5V power supply (which also defines the logic level of the output signal).

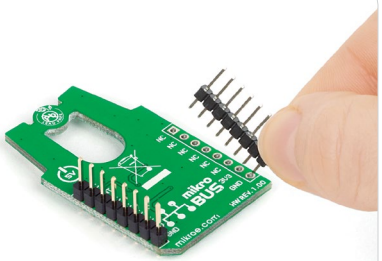
2. Soldering the headers

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.



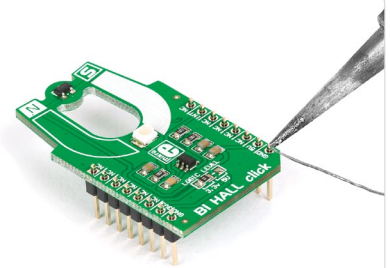
❶

❷

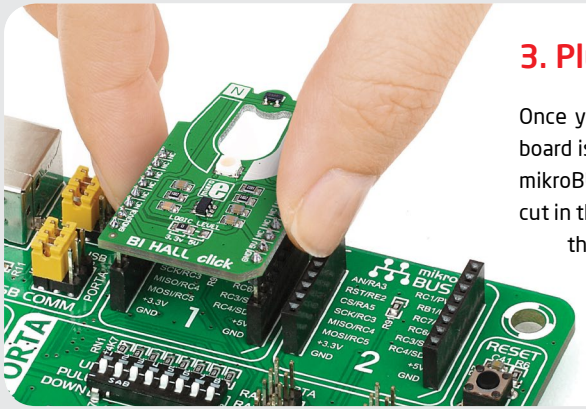


Turn the board upside down so that the bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

❸

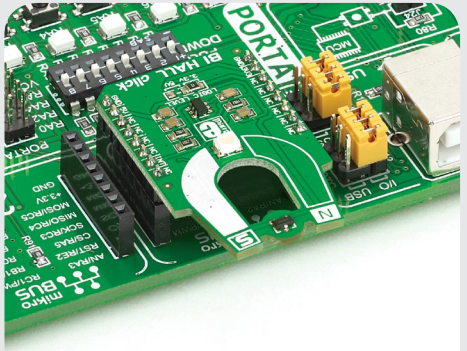


Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



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

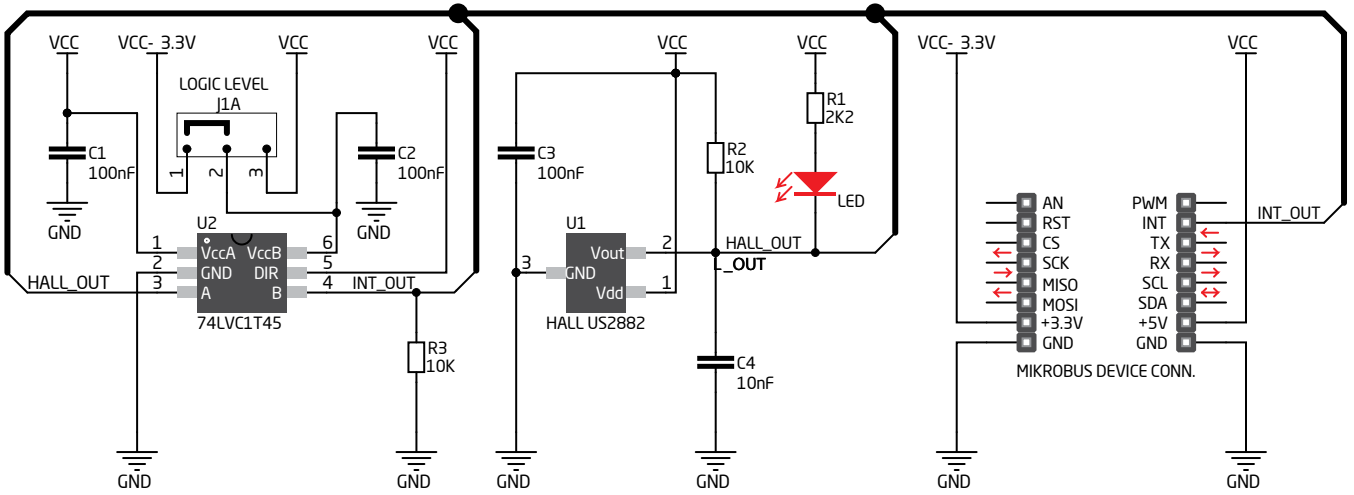
A bipolar Hall effect sensor is sensitive to both north and south pole magnetic fields. BI HALL click™ outputs a HIGH logic level when exposed to a south pole magnetic field, and a LOW logic level when exposed to a north pole magnetic field. When removed from a magnetic field, the logic level stays in its previous state. It's suitable for any application where alternating north and south poles are used to ensure switching. For example, to measure rotary speed by utilizing a ring magnet with north and south poles.

click™
BOARD
www.mikroe.com

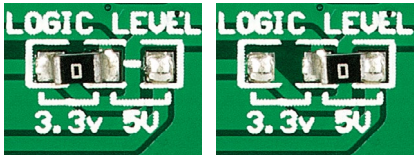
BI HALL click™ manual
ver. 1.00

0 100000 026922

5. BI HALL click™ board schematic



6. SMD jumper



To switch between 3.3V and 5V power supplies, use the on-board zer-ohm SMD jumper. By default it's soldered in the 3.3V position.

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!

MikroElektronika
DEVELOPMENT TOOLS | COMPILERS | BOOKS