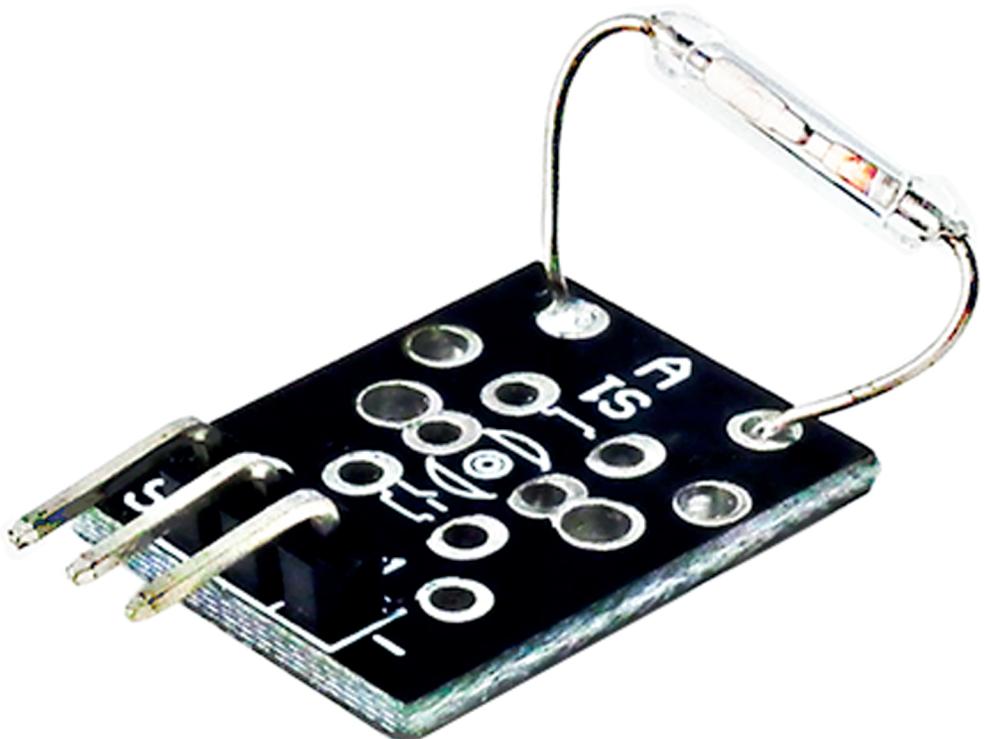


KY-021 Mini Reed Sensor Modul Datenblatt



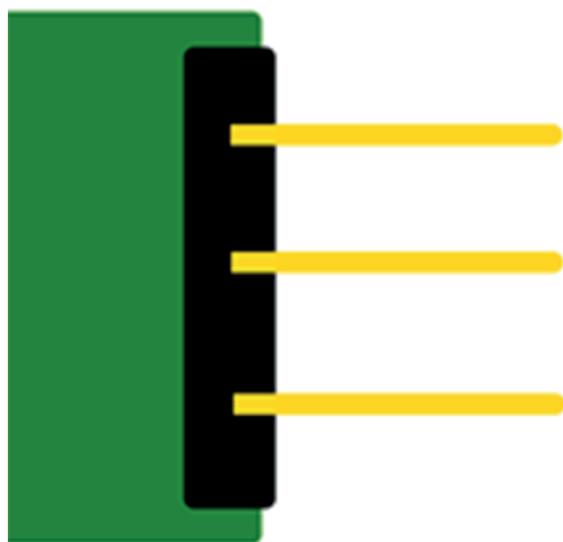
Contents:

- 1. Technical Data**
- 2. Pinout**
- 3. Code Example Arduino**
- 4. Code Example Raspberry Pi**

1. Technical Data

If the sensor is close to a magnetic field, the input pins are connected.

2. Pinout



① GND
② +V
③ Signal

3. Code Example Arduino

This example will activate a LED if the sensor is close to a magnetic field.

The modules KY-011, KY-016 or KY-029 can be used as a LED.

```
1 int Led = 13 ;// Declaration of the LED output pin.
2 int Sensor = 10; //Declaration of the sensor input pin
3 int val; // Temporary variable
4
5 void setup ()
6 {
7     pinMode (Led, OUTPUT) ; // Initialization output pin
8     pinMode (Sensor, INPUT) ; // Initialization sensor pin
9 }
10
11 void loop ()
12 {
13     val = digitalRead (Sensor) ; // The current signal at the sensor will be read
14
15     if (val == HIGH) // If a signal will be detected, the LED will light up.
16     {
17         digitalWrite (Led, LOW);
18     }
19     else
20     {
21         digitalWrite (Led, HIGH);
22     }
23 }
```

Connections Arduino:

LED + = [Pin 13]

LED - = [Pin GND]

Sensor Signal = [Pin 10]

Sensor +V = [Pin 5V]

Sensor - = [Pin GND]

4. Code Example Raspberry Pi

```
1 # Needed modules will be imported and configured
2 import RPi.GPIO as GPIO
3 import time
4
5 GPIO.setmode(GPIO.BCM)
6
7 # Declaration of the input pin which is connected with the sensor. Additional to that, a pullup resistor will be activated.
8 GPIO_PIN = 24
9 GPIO.setup(GPIO_PIN, GPIO.IN)
10
11 print "Sensor-test [press ctrl+c to end]"
12
13 # This outFunction will be started after a signal was detected.
14 def outFunction(null):
15     print("Signal detected")
16
17 # The outFunction will be started after a signal (falling signal edge) was detected.
18 GPIO.add_event_detect(GPIO_PIN, GPIO.FALLING, callback=outFunction, bouncetime=100)
19
20 # main program loop
21 try:
22     while True:
23         time.sleep(1)
24
25 # Scavenging work after the end of the program
26 except KeyboardInterrupt:
27     GPIO.cleanup()
```

Connections Raspberry Pi:

Signal= GPIO24 [Pin 18]

+V = 3,3V [Pin 1]

GND= GND[Pin 6]

To start, enter the command:

```
1 | sudo python SensorTest_RPi_withoutPullUP.py
```