Reed Switch Module

This module contains a sealed **N**ormally **O**pen reed switch which will close its contacts when a magnetic field is brought close to the side of its glass case. It provides both analogue and digital outputs, with the multi-turn pot able to adjust the sensitivity. Turning the adjustment screw clockwise increases the sensitivity, (the multi-turn potentiometer has a range of approximately 25 turns).

Reed switches are commonly used as limit or proximity switches where electrical monitoring of a moving object is required. They are basically a mechanical version of the "Hall Effect" sensor, both of which change their output when a magnetic field is present.

This module differs from the Mini Reed Switch Module as it contains additional electronic circuitry to set the sensitivity, as well as outputting both analogue and digital signals.

Table 1: Reed Switch Module Pin Connections

Device	Arduino	Wire	Description
AO	A0	🟦	Analogue signal output from reed switch circuitry.
G	GND	⬛	Ground connection.
+	5V	🟥	5 **V**olts **D**irect **C**urrent positive supply for board circuitry.
DO	D2	🟫	Digital output of threshold trigger.

A0: can be any analogue pin, D2: can be any digital pin.
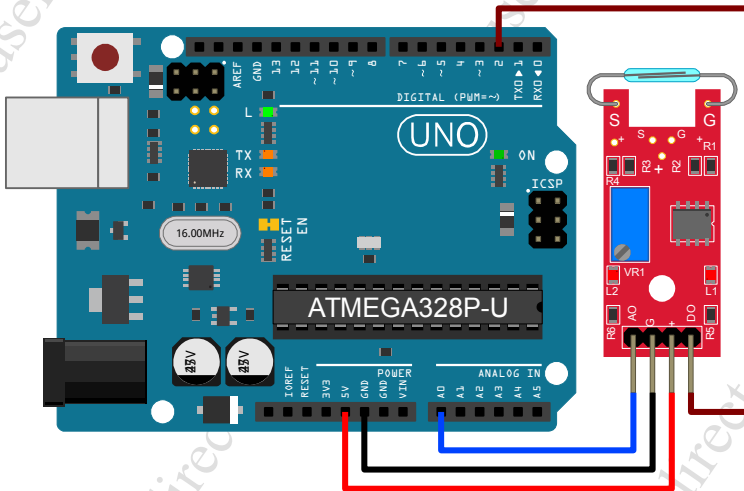
The sketch below can be used to display the results to the Arduino Serial Monitor / Plotter.

```
int pDigitalReed = 2;
int pAnalogueReed = A0;
void setup () {
  Serial.begin( 9600 );
  pinMode ( pDigitalReed, INPUT );
  digitalWrite ( pDigitalReed, HIGH );
}
void loop () {
  Serial.print( analogRead( pAnalogueReed ), DEC );
  Serial.print( ", " );
  Serial.println( digitalRead( pDigitalReed ), DEC );
}
```

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Module Specifications

PCB Dimensions (H × W × D): 35.4 × 15.5 × 1.6 millimetres [mm]
Enclosing Dimensions (H × W × D): 42.9 × 19.2 × 14.4 mm
Weight: 2.91 grams [g]
Input Voltage: 5 **VDC**

Module Performance

Current Draw (not triggered): 4.3 milliamps [mA] @ 5.04 **VDC**
Current Draw (triggered): 6.9 mA @ 5.03 **VDC**

Projects

Folder: **\Modules\Electromagnetic\Reed_Switch**

• **Reed_Switch_SM**: Displays the results to the Arduino Serial Monitor / Plotter.

Reed Switch Module - Dimensions