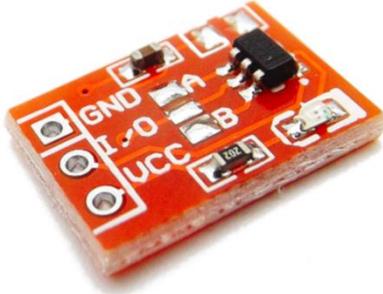


TTP-223 module

This module is ideal for adding touch control, replacing the mechanical switches in your project. It uses the TTP223B IC that can detect when a human finger touches it.

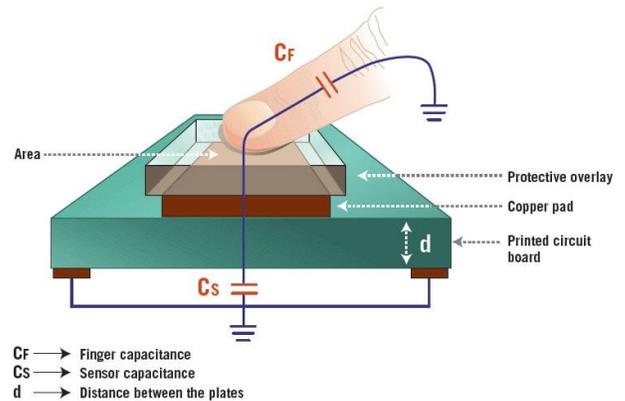


Compared to inductive proximity sensors, they are limited in switching speed (10-50 Hz), but have other advantages:

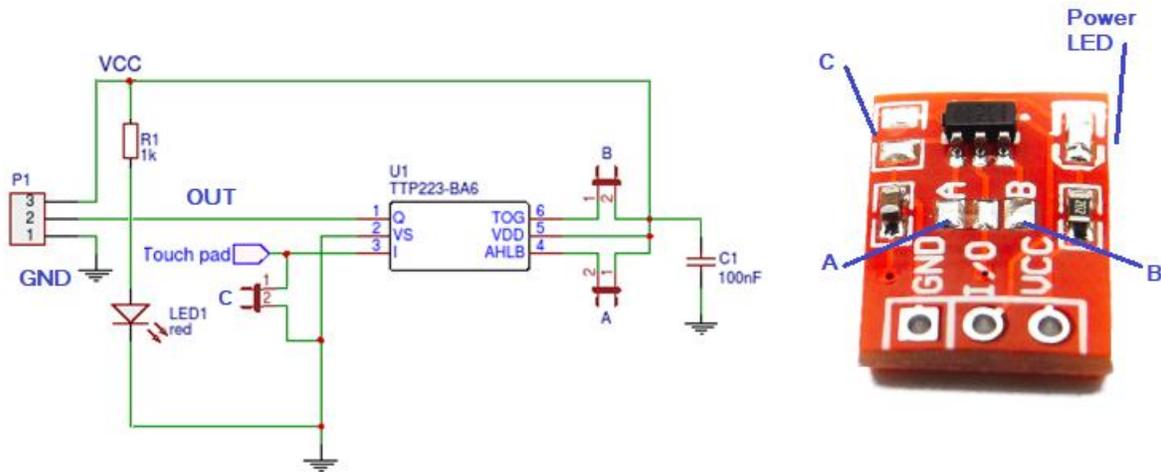
- High detecting distance
- Detect no ferromagnetic materials (water)
- High EMI rejection

Working principle

The sensor belongs to the type of capacitive sensor that is based on the principle of detecting the electrical capacity of a capacitor: their sensitive side constitutes an armature, the possible presence in the immediate vicinity of a conductive object, realizes the other armature of the capacitor. Thus the presence of an object creates a capacity that the internal circuits detect, commanding the switching of the output signal.



Schematic



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Operating Temperature	TOP	-40 ~ +85	°C
Storage Temperature	TSTG	-50 ~ +125	°C
Input Voltage	VIN	GND-0.3 ~ VCC+0.3 V	V
Power Supply Voltage	VCC	GND-0.3 - GND+5.5	V

DC Characteristics (T=25°C)

Parameter	Symbol	Value	Unit
Operating Voltage	VCC	2.0 ~ 5.5	V

Settings

A-PAD

If the A pad is in **short circuit** onto the central pad the output is **Active Low**; instead else in the case that the A pad is in **open circuit** the output is **Active High**.

B-PAD

If the B pad is in **short circuit** onto the central pad the **toggle mode** is selected; instead else in the case that the B pad is in **open circuit** the **direct mode** is selected.

PAD	State	Mode
A	Short	Output Active Low
	Open	Output Active High
B	Short	Toggle Mode
	Open	Direct Mode