Sensor de poeira e fumaça para arduino

Datasheet: <https://img.filipeflop.com/files/download/Sensor_de_poeira_fumaca.pdf>

Testado e funcionando. As conexões estão na própria programação.

int pin = 8;

unsigned long duration;

unsigned long starttime;

unsigned long sampletime\_ms = 30000;//sampe 30s ;

unsigned long lowpulseoccupancy = 0;

float ratio = 0;

float concentration = 0;

void setup() {

Serial.begin(9600);

pinMode(8,INPUT);

starttime = millis();//get the current time;

}

void loop() {

duration = pulseIn(pin, LOW);

lowpulseoccupancy = lowpulseoccupancy+duration;

if ((millis()-starttime) > sampletime\_ms)//if the sampel time == 30s

{

ratio = lowpulseoccupancy/(sampletime\_ms\*10.0); // Integer percentage 0=>100

concentration = 1.1\*pow(ratio,3)-3.8\*pow(ratio,2)+520\*ratio+0.62; // using spec sheet curve

Serial.print("concentration = ");

Serial.print(concentration);

Serial.println(" pcs/0.01cf");

Serial.println("\n");

lowpulseoccupancy = 0;

starttime = millis();

}

}

add a 10k resistor between the Pin5 and Ground.