MATRIX Grayscale Sensor V3

MS-003 V3

Important Notice: Grayscale Sensor V2 and V3 are **100% compatible** in hardware and software.

1. Feature

· Wide voltage range from 3.3V to 5V.
· On-board super small integrated infrared sensor .
· Additional comparator digital output adjust by on-board screw.

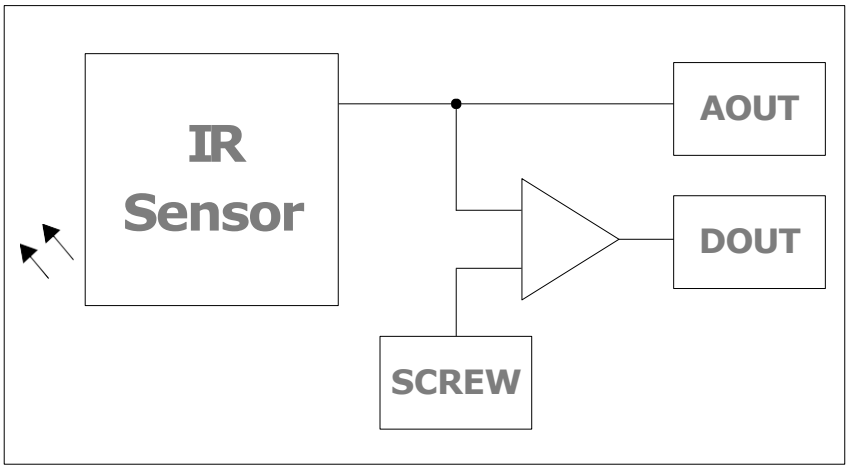
2. Application

· Tracking car
· Distance detector
· Grayscale sensing

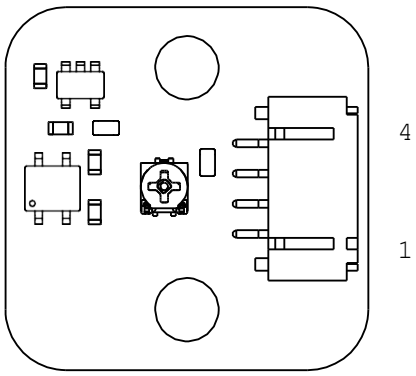
3. Introduction

Matrix Grayscale Sesnor measures the intensity of light from black to white with both digital and analog output.

4. Block Diagram



5. Pinout



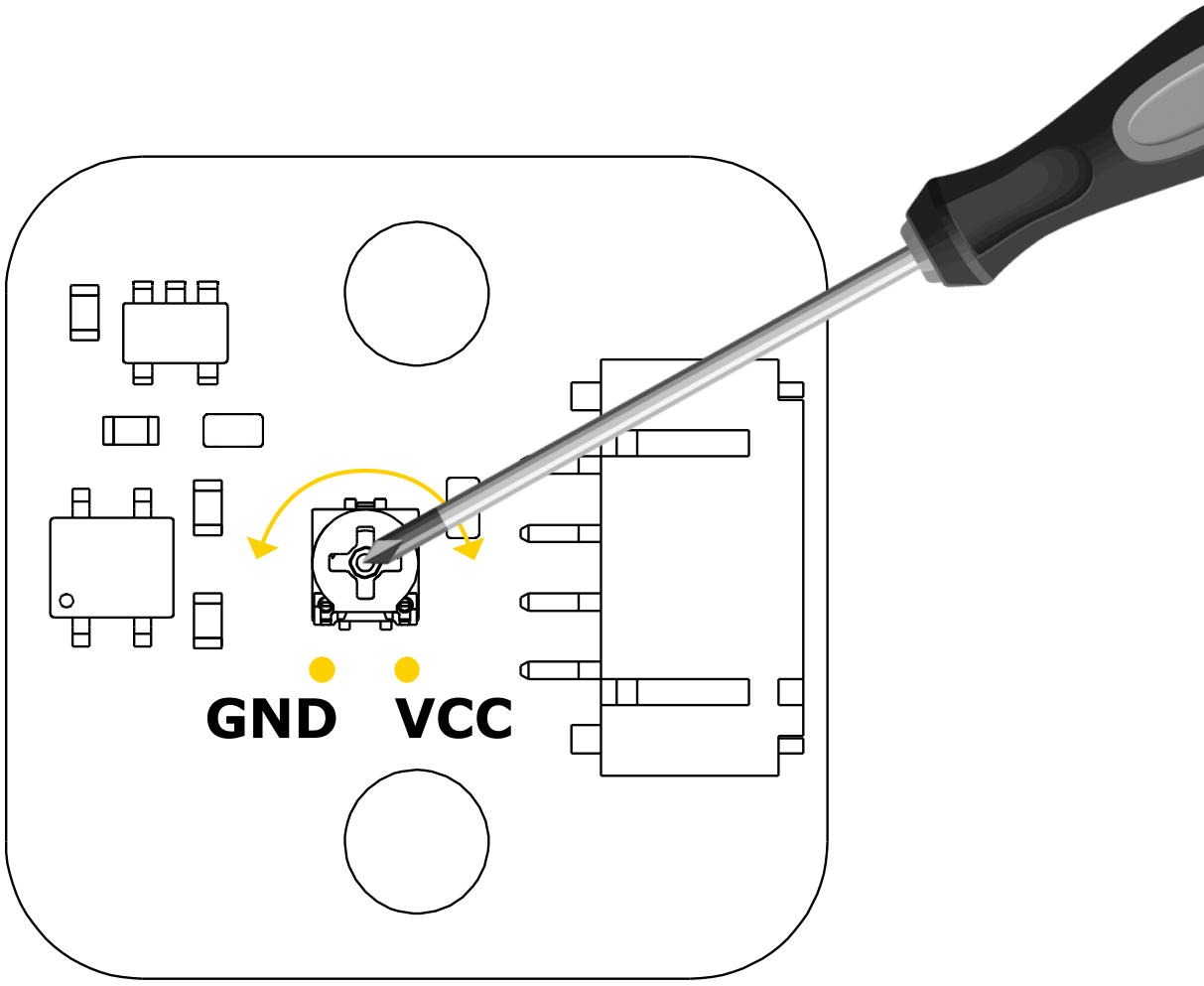
Pinout			
NO.	Name	I/O	Description
1	AOUT	O	Grayscale analog output, output close to VCC while the grayscale level goes to low.
2	DOUT	O	Grayscale digital output, threshold dependence on on-board screw.
3	VCC	I	Supply voltage.
4	GND	-	Supply ground.

6. Electrical Characteristics

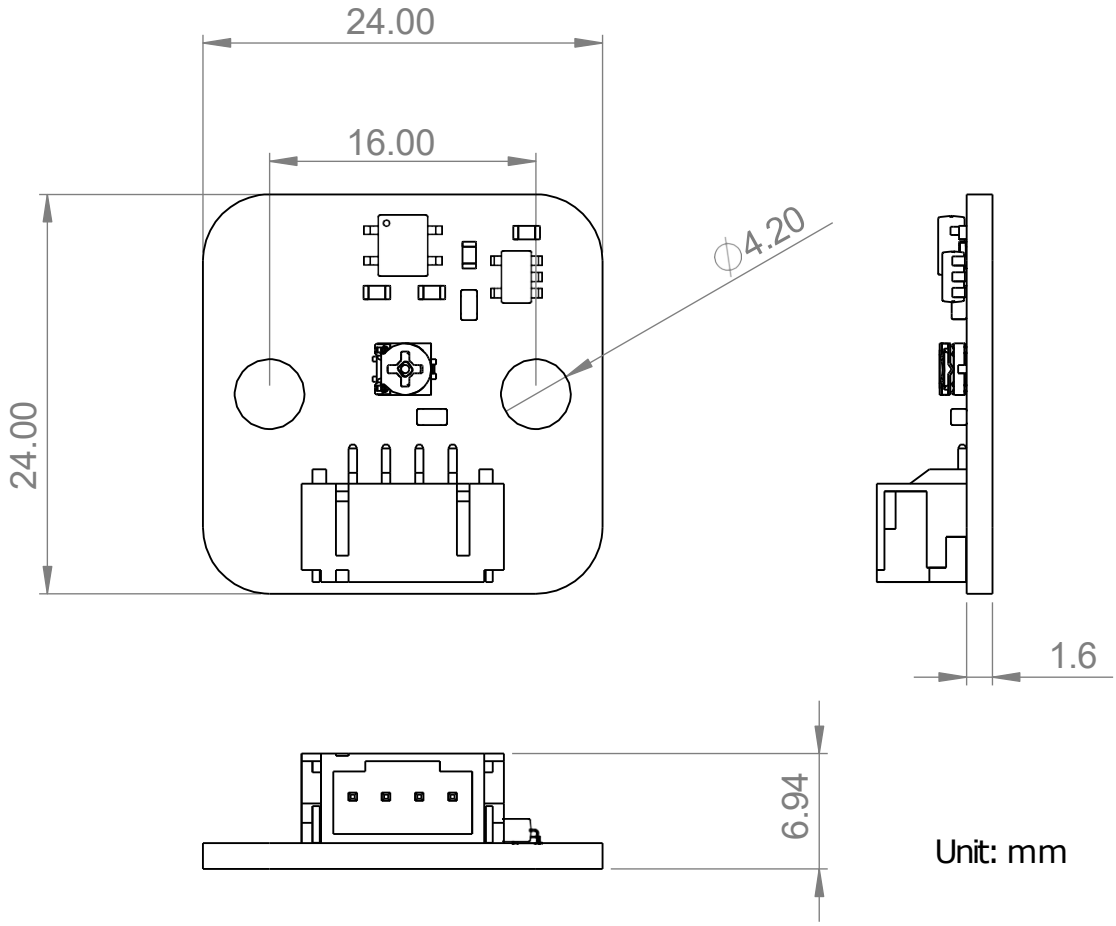
Parameter	Min	Typ	Max	Units
Supply Voltage (VCC)	3	3.3	5	V
Detection range	-	-	50	mm
IR wavelength	-	940	5	nm
Analog output impedance	-	330	-	KΩ
Digital output impedance	-	10	-	KΩ

7. Usage

AOUT is the IR sensor analog output, the voltage follows IR LED reflection intensity.
DOUT only has 0 or 1 state, the changing spot defined by onboard screw.
Turn the screw clockwise to bring the gate close to VCC, and turn it counterclockwise to close to GND.



8. Dimensions



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