WTAL Series voltage output inclinometer

Product introduction

Woosens WTAL series voltage output inclinomete module which made by high- accuracy acclerometer MEMS device and standard MCU, built-in advanced anti-vibrtion filtering algorithms. The product has undergone trict production alibration, factory inspection, to ensure excellent product consistency and reliability.

WOOSENS WTAL series voltage output inclinomete module adopts 0~5V standard interface, which can be directly connected to various industrial control hosts. It has excellent load capacity and anti-interference ability.

Features

- · Cost-effective product
- · 0~5V Linear voltage output
- · Power supply: 9~35V
- · Operating temperature-40-85℃
- · ROHS
- · IP65 Protection

Application

Angle measurement

Engineering machinery

Rotation Direction Measurement

Equipment and Instrument Status Monitoring

Product specification

Electrical Specification

Parameter	Condition	Minimum	Typical	Maximum	Unit
Power supply	Wide voltage	9	12	35	V
Operating current		20		30	mA
Operating temperature		-40		+85	℃
Store temperature		-40		+100	℃

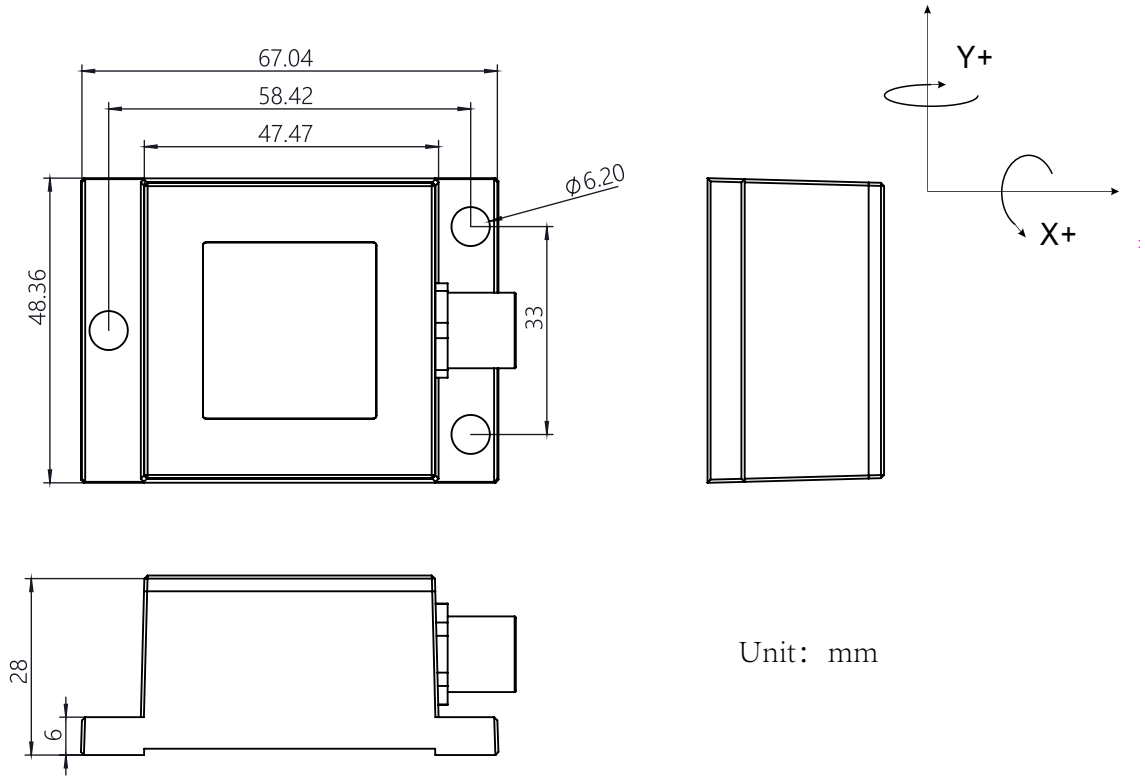
Room 502, Building 1, Jiuzhou Industrial Park, No. 10, Tongguan Road,
No.19 Road, Yutang Street, Guangming District, Shenzhen, P. R. China.
TEL:+86-755-83439588
www.woosens.com

Performance Specification

Parameter	Condition	Specification
Measuring axis		X-Y
Measuring range		±15°/±30°/±90°/0~360°
Output voltage @ 0°		2.5V
Output voltage range		0.5~4.5V
Frequency response		10Hz
Sensitivity	±15°Range	133mV/°
	±30°Range	66.7mV/°
	±90°Range	22.2mV/°
	0-360°Range	11.1mV/°

Note: All parameters are measured at room temperature 25°C.

Mechanical Characteristic



Unit: mm

Interface Definition

Output interface	Red	Yellow	Blue	Black
Function	VIN	X-OUT	Y-OUT	GND

Transform Voltage Into Angle

Angle(°) = (Vout(@Angle)-Vout(@0°)/Vsensitivity

Example:

Measuring range is±90°, Sensitivity is 22.2mV/°, the actual measurment X axis output voltage is 4V, the actual measurment Output voltage is 2.5V, so X axis Angle(°) = (4000-2500)/22.2 = 67.56°

Ordering information

Measuring range	Measuring axis	Part number
±15°	Single-Axis/Dual-Axis	WTAL111-N15LM/WTAL121-N15LM
±30°	Single-Axis/Dual-Axis	WTAL111-N30LM/WTAL121-N30LM
±90°	Single-Axis/Dual-Axis	WTAL111-N90LM/WTAL121-N90LM
0-360°	Single-Axis	WTAL111-N36LM

Note: All Specifications are subjected to change without notice.