NTI215FL－V2 two axis tilt sensor

General description

NTI215FL-V2 two axis tilt sensor is researched and produced as two axis structure, horizontal mount, measuring X and Y axis. It outputs analog voltage. The measuring range is ±15 degree. Entirely industrial parts of device, stable and credible performance.

Features

Silicon 3D MEMS sensor
Shock resistance>20000g
High Resolution

Applications

Platform tilt measurement
Equipment and instrument condition monitoring
Rotational orientation measurement

Parameter index

Electrical characteristics

Parameter	Condition	Min.	Type	Max.	Units
Supply voltage(1		8		36	V（DC）
Static operating current	Without load		5.7	6.5	mA
Output impedance	Resistive	20			KΩ
	Capacitive			20	nF
Operating temperature		－40		+85	□

Performance characteristics

Parameter	Condition	Min.	Type	Max.	Units
Measuring range			±15		°
linearity range			±10		°
Output voltage at zero	Vcc=5.00V	2.48	2.5	2.52	V
Non-linearity			±0.2	±0.25	%/FS
Sensitivity	Vcc=5.00V	148	150	152	mV/°
Sensitivity error(2			±1.3		%

Note 1: please try to keep stability of supply voltage, it will influence accuracy of the product.
Note 2: The definition of sensitivity error is as follows;

Vsens ={Vout(@+10°)-Vout(@－10°)}/20 [mV/°]

Sensitivity error= (actual sensitivity - nominal sensitivity)/ nominal sensitivity×100%,nominal sensitivity is 150mv/°

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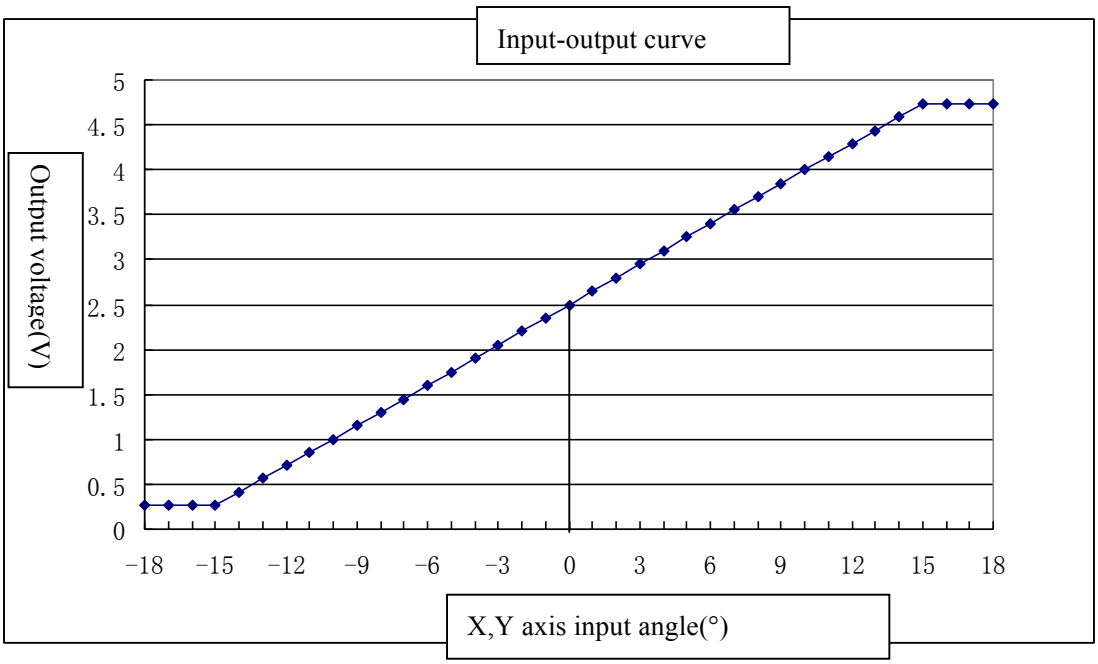
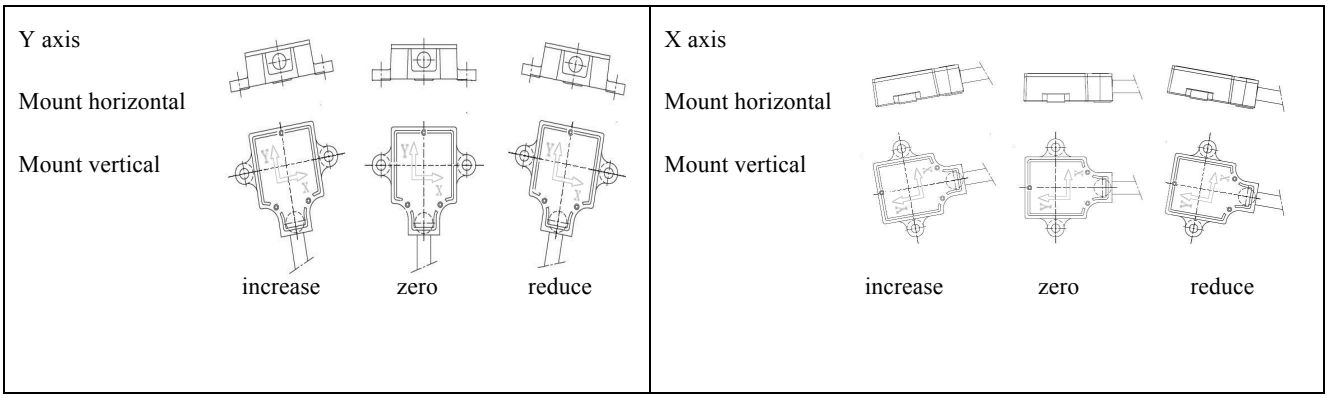
Input-output characteristics



The relation of voltage and angle

Angle =(output voltage- voltage at zero)/actual sensitivity

Measuring direction



Definition of connection and module size

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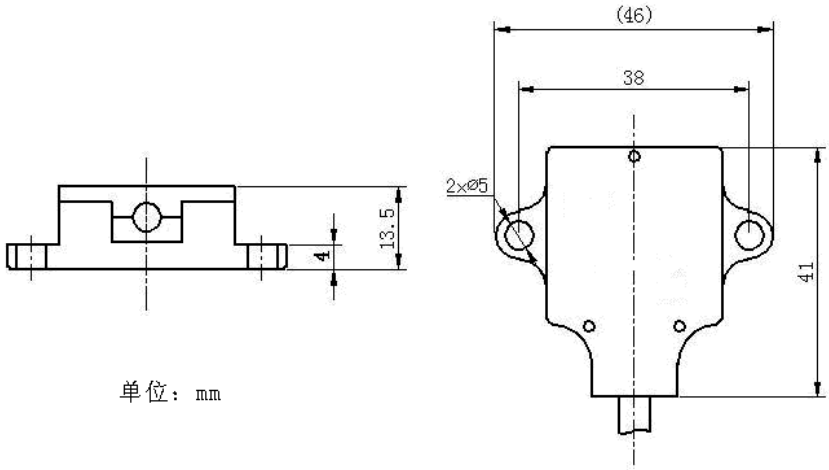

Electrical connection

Wire color	Name	Function
Red	8-36V	Power supply
Black	GND	Ground
Yellow	Out X	X axis output
Blue	Out Y	Y axis output

Ordering information: NTI-215FL-V2

Specification subject to change without notice.

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