



Slim MEMS Dual Tilt Angle Sensor

THD2000Z

Under
Development

High vibration resistance, Slim MEMS Dual Tilt Angle Sensor



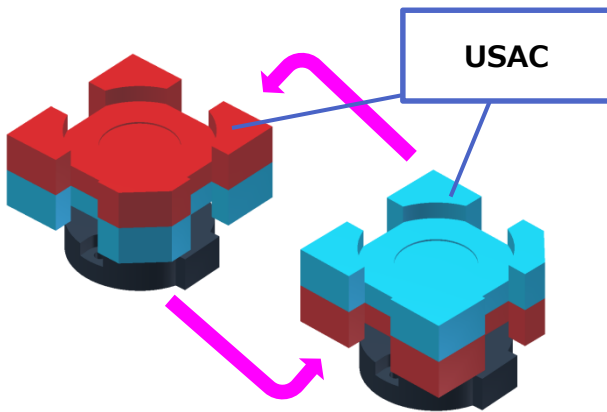
- ◆ Slim Resin Housing with Built-in Connector.
- ◆ Various tilt angle range is available.
- ◆ User-Friendly functions
 - Programmable Digital Damping Control.
 - Easy Resetting Function for Index Point (0°) by Card.
- ◆ Output : Voltage Ratio or Serial (RS-485)
- ◆ Impervious to the influence of vibration because detecting device has no resonance point.

【 Preliminary specifications 】

		Voltage Ratio	RS485
Effective Elect. Travel		±10°, ±20°, ±30°, ±45°, ±60° Separate choice of X and Y axes (Option)	
Absolute Linearity		±1.0%FS	
Input voltage		5.0±0.25V	
Current Consumption		20mA MAX.	30mA MAX.
Output Range (analog)		10%Vin ~ 90%Vin	-
Resolution		12bit rev.	0.001° (Noise is not included)
Index point setting		Resetting to 0° from ±5°error max.	
Damper Control		<ul style="list-style-type: none"> •Selectable 16 steps •Time constant against input step : 430~1,230ms 	
Temp. Characteristics	Horizontal	Horizontal : ±0.2°	Horizontal : ±0.2°
	Tilt angle	T.B.D.	±10° : ±0.6° ±60° : ±4.4°
EMS		IEC 61000-4-3 : Level 3(10V/m)	
EMI		IEC 61000-4-6 : CISPR22_A_10m	
Category Temp. Range		-30~+85°C	
ESD		IEC61000-4-2 : ±16kV	
IP Rating		IP40	

Note: Specifications may be changed without notice.

◆Resetting 0° position



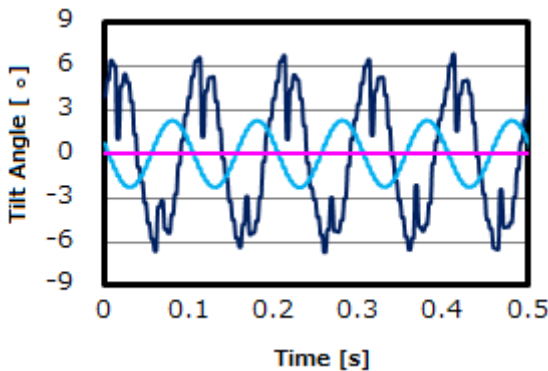
Touch USAC to THD2000Z several times with changing front/back of USAC.

Most of inclinometers has requirement of 0°adjustment to mounting surface, it has been worked with electrical adjustment by trimmer or mechanical adjustment by mounting board so far. EMC3000Z series can be resetting output position by command control. Moreover User-Settable Adjustment Card (USAC) can reset 0°adjustment without electrical connection at the field. Only touch several times USAC after mounting THD2000Z to your machine.

<Advantage>

If you have "USAC", you can reset to 0° at anywhere.

◆Digital Damping Control

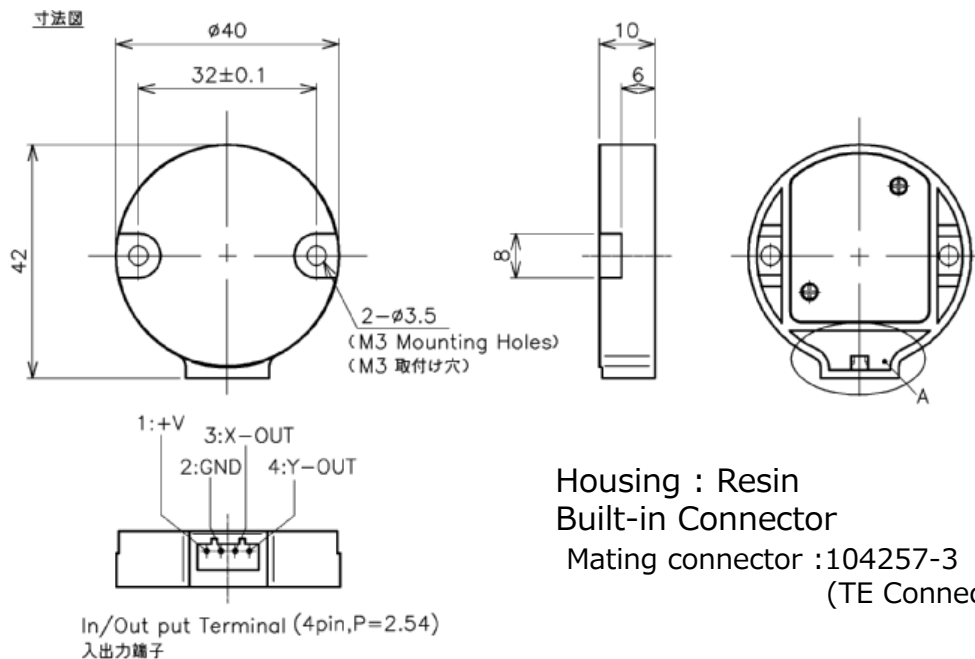


THD2000Z implements the digital filter that would remove external noise to give the user a choice of certain filter factor from 16 available settings.

<Advantage>

Noise rejection and Responsiveness is a trade-off relation. If Noise is suppressed, Responsiveness become slower. If Responsiveness is changed to fast, Noise become bigger. THD2000Z offer you various filters for ideal of your usages.

【 Dimension 】



Housing : Resin
 Built-in Connector
 Mating connector :104257-3
 (TE Connectivity)