

MEMS Dual Axis Tilt Angle Sensor

THD2000Z

NEW

Series



MEMS Dual Axis Inclinometer

- Housing Diameter: $\Phi 40\text{mm}(\Phi 1.57\text{in})$
- Electrical Tilt Angle: $\pm 10^\circ \sim \pm 60^\circ$
- Output: Voltage Ratio Output
/ Digital Output (RS-485)
- Absolute Linearity: $< \pm 1\% \text{FS}$
- Stable Temperature Characteristics
- High Vibration Resistance
- Built-in Connector



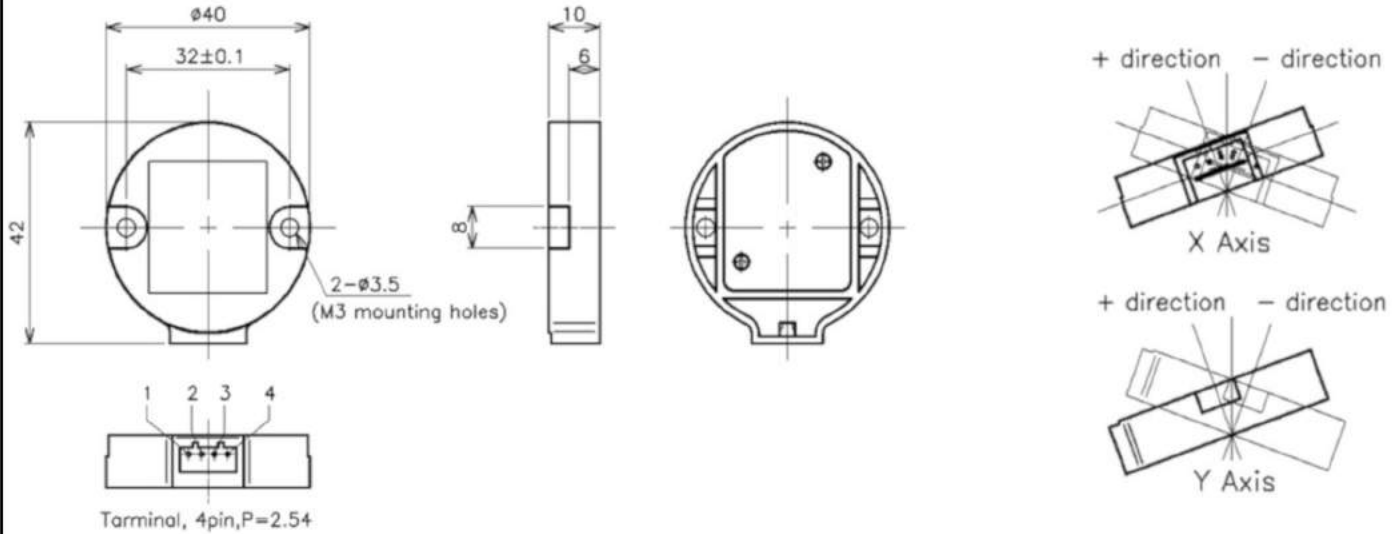
High-end version
ESC30xxZ Series
Available Now

Small housing diameter $\Phi 40\text{mm}$!

This small dual-axis inclinometer "**THD2000Z Series**" features the option of providing either analog output or digital output, level adjustment that can simply be done by just using a tool or programming, and having a digital filter embedded in the design for stabilizing the output in removing external noise caused by shock and vibration.



Dimensions (mm)

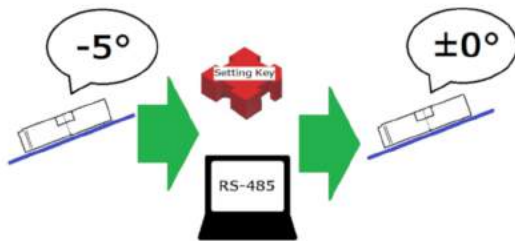


Output Type	Voltage Ratio (Analog)	RS-485 (Digital)
Electrical Tilt Angle	$\pm 10^\circ, \pm 20^\circ, \pm 30^\circ, \pm 45^\circ, \pm 60^\circ$	$\pm 30^\circ, \pm 60^\circ$
Absolute Linearity	$\pm 1\% \text{FS}$	
Input Voltage	DC 5 $\pm 0.25\text{V}$	
Current Consumption	Steady State: 20mA	Steady State: 30mA
Output Resolution	12bit equivalent	0.001° (Not included noise)
Operating Temp. Range	-30 ~ 85 °C (-22 ~ 185 °F)	
IP Grade	IP 40	

◆ Special Functions

1. Index Point Resetting Function

The leveling adjustment of conventional inclinometer takes time because it is done by using the trimmer or adjustment screws on the mounting plate. THD2000Z can easily be reset to the level position (horizontal position 0°) using the User-Configurable Adjustment Card* or the RS-485 command**.



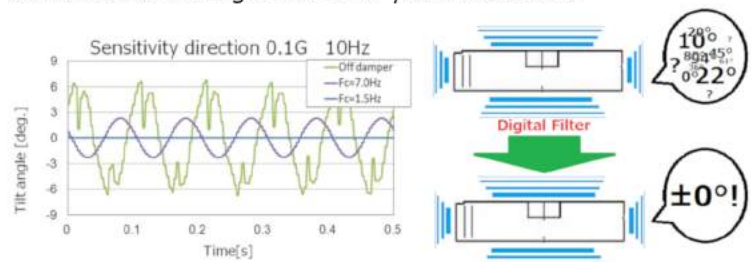
* Adjustment Card is sold separately.

** To use RS-485 command, please select digital output

2. Digital Damping Control Function

THD2000Z implements the digital filter that removes external noise and reads accurate angle of inclinometer in high-vibration environments.

THD2000Z also gives you a choice of certain filter factor from 16 available settings that suits your situations.



Configuring of the digital filter is done only at our factory.

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