

INC1000 Series

0.01 Degree High Accuracy Single / Dual Axis Inclinometer



Main Features

- Single/Dual Axis Measurement, Range from ± 5 to 360°
- Accuracy: $\pm 0.01^\circ$, Zero Point Drift: $\pm 0.002^\circ/\text{C}$
- Low Temp Drift, Optional Temperature Compensation
- Output interfaces: RS485, RS232(Optional)
- Wide Voltage Input: 11~36V, IP67 Sealed
- Compact and Lightweight: 93.8x55.5x26 mm, 250grams
- Wide Working Temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$
- OEM, ODM Supported

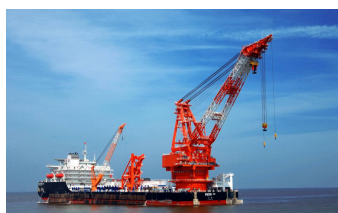
INC1000 series inclinometer is high accuracy single or dual axis digital inclinometer with RS485 or RS232 output interfaces, it enjoys high accuracy: $\pm 0.01^\circ$ (room temperature) and has a wide range of options to cover a measurement range from $\pm 5^\circ$ to 360° . Adopting the latest MEMS technology, the product enjoys excellent performance in non-linearity, repeatability, temperature drift, noise, and shock resistance, and the product enjoys small size and low power consumption. And the inclinometer adopts big brand components and material, and the cable are qualified for continuous outdoor use, and it is manufactured and calibrated in our own factory to guarantee performance and the real accuracy to the stated specification.

Adopting SkyMEMS proprietary algorithms, which reduce the non-linearity, cross errors, quadrantal error and installation error, which makes it one of the most competitive inclinometer in the world. And it enjoys high reliability and survivability in harsh environment and the working temperature is $-40 \sim 85^\circ\text{C}$. It has been widely used in heavy engineering machinery, track gauge instrument, high building monitoring, bridge and dam monitoring, laser platform, etc.

- ✓ 12-Step Quality Control, Super Reliability, More Functions
- ✓ Adopting Original Big Brand Component, High-class Material, Competitive Price

- ✓ Real Actual Precise after Calibration, Perfect Performance
- ✓ Successful Applications in Tens of Fields, More than 1000 Customers are Using

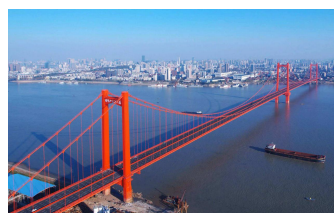
Typical Applications



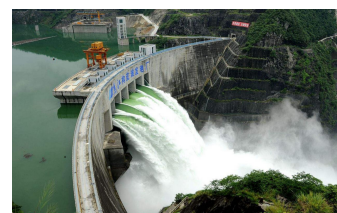
Heavy Engineering Machinery



Track Gauge Instrument



Bridge Monitoring



Dam Monitoring

Super Reliability & Performance

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Focus on MEMS Measurement & Control Technologies, Products include:

MEMS Acc	MEMS Gyro	IMU	Vertical Gyro	AHRS
INS	GNSS/INS	E-compass	Inclinometer	FOG

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Technical Specifications

Technical Specs		
Parameter	Value	Comments
Range	$\pm 5^\circ, \pm 10^\circ, \pm 15^\circ, \pm 30^\circ, \pm 60^\circ, \pm 90^\circ, \pm 180^\circ, 0\sim 360^\circ$	Optional
Measurement axis	X-Y or X	
Accuracy	$\pm 0.01^\circ$	room temperature
Resolution	0.001°	room temperature
Output Data Frequency	5~100Hz	
Electrical and Environment Specs		
Voltage	11-36VDCs	
Current	<20mA@24V	
Startup Time	1.5s	
Working Temperature	-40~+85°C	
Storage Temperature	-50~+125°C	
Protection Level	IP67	
Physical Specs		
Dimension	93.8×55.5×26 mm	
Weight	250 grams	
Cable Length	1 meter	

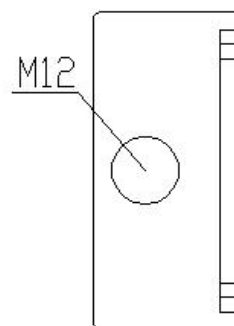
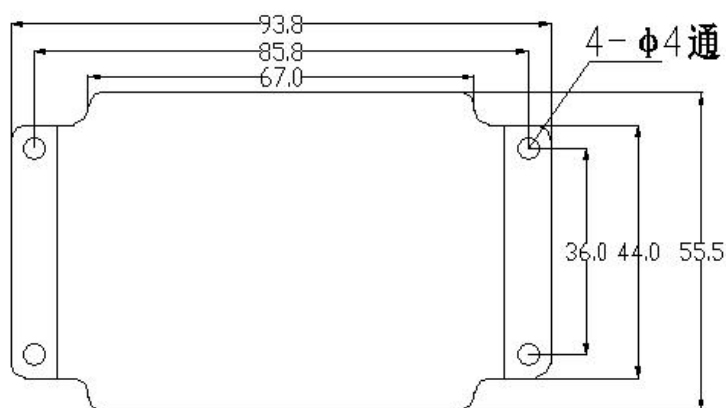
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Pins Definition

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Wire color	RS485 output	RS232 output
Red	VCC_Voltage +	VCC_Voltage +
Black	GND_Voltage -	GND_Voltage -
Blue	485A	TX_serial port transmitting
Yellow	485B	RX_serial port receiving
Brown	NC	OGND_signal GND
Green	NC	NC
White	NC	NC

Dimension & Package



(Unit: mm)

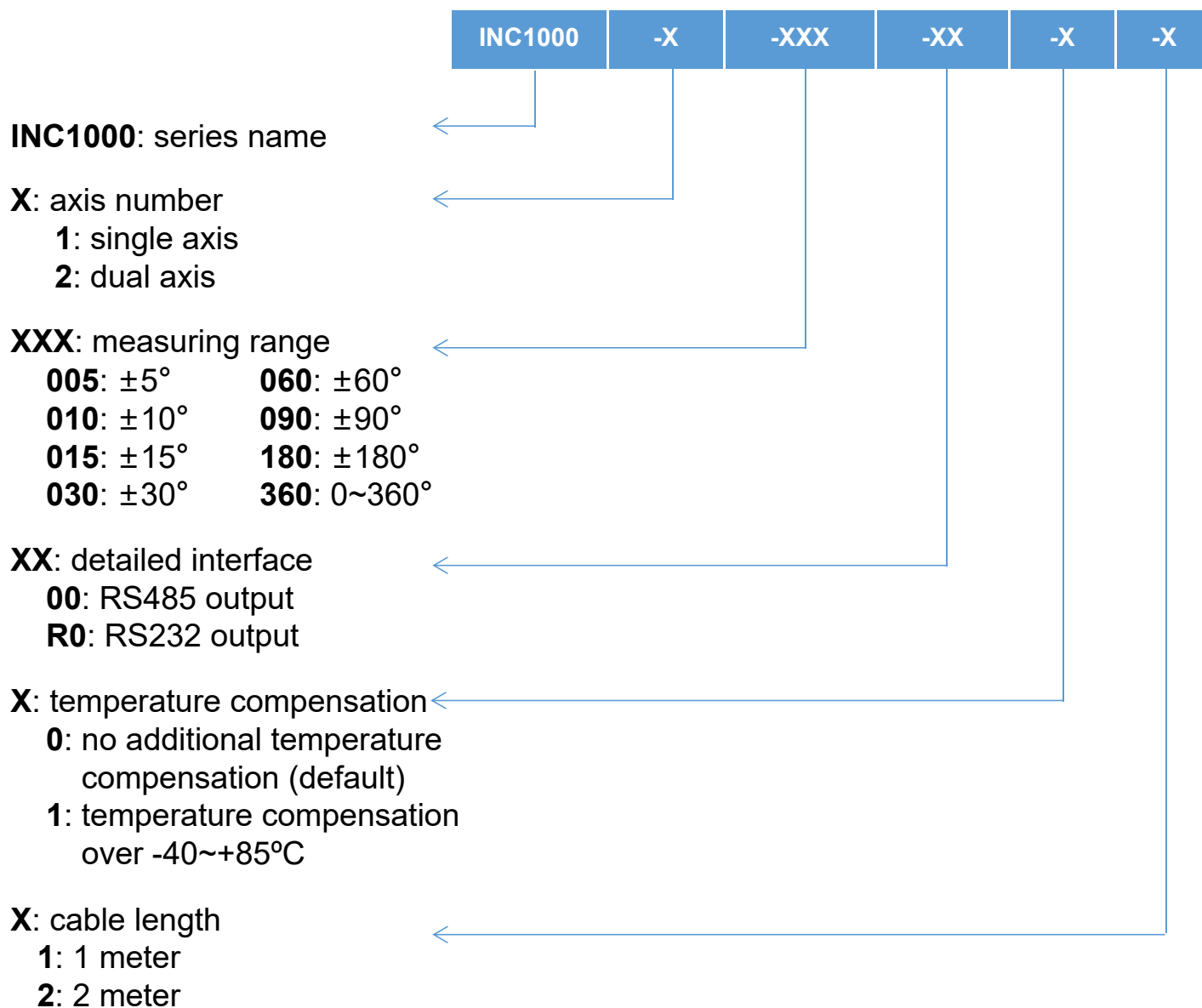
three-view drawing

Super Reliability & Performance

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Order Information



For example, INC1000-2--030-00-0-1 it means that the inclinometer INC1000 series, dual axis, measuring range: ±30°, RS485 interface, without temperature compensation, 1meter cable length.