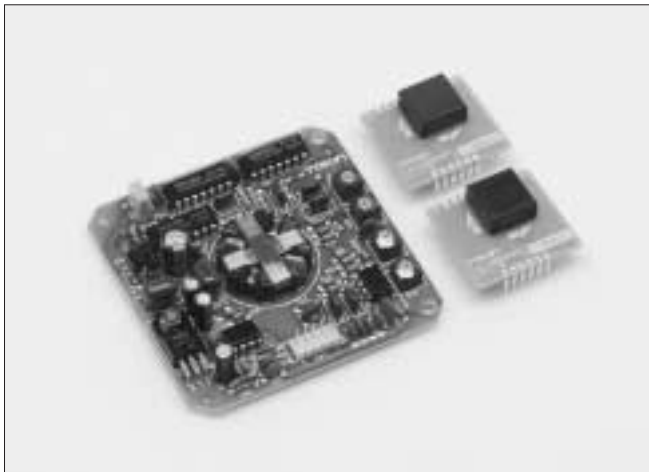


# Fluxgate Type Terrestrial Magnetic Sensor



## Outline

- Terrestrial magnetic sensor use a flux gate type detector to detect terrestrial magnetism.
- It detects the horizontal component of the earth's magnetic field and divided it into two perpendicular components, and determines the angle of direction from the resulting vector. This allows absolute direction angle measurements with reference to magnetic North.

## Applications

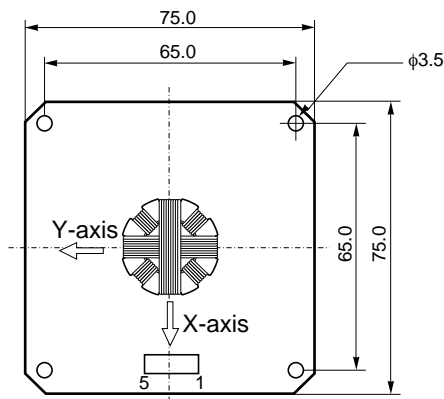
- Compass for automobiles and ships
- Cathode-ray tube

## Specifications

Model		TMC2000	TMC3000NF
Item	Code		
Power supply voltage (V)	Vcc	12 ± 0.5	12 ± 0.5
Supply current (mA) max.	Icc	50	35
Output voltage (V)	Vx, Vy	1 ± 0.05(at 100 μT)	1 ± 0.05(at 30 μT)
Offset voltage		4 ± 0.3(at 0 μT)	2.5 ± 0.3(at 0 μT)
Magnetic field range (μT) max.		± 200	± 60
Output linearity (%)		100 ± 15	100 ± 2
Operating temperature (°C)	Top		- 10 to + 70
Storage temperature (°C)	Tstg		- 40 to + 85

## Shapes and Dimensions

### ● TMC2000

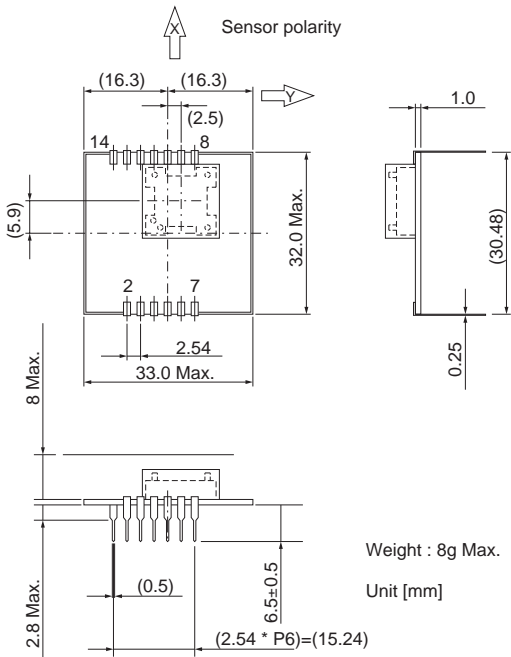


(mm)

### Pin description

Pin No.	Function	Signal name
1	Vref	Reference voltage
2	Vy	Y-axis output
3	Vx	X-axis output
4	GND	Power supply ground
5	Vcc	Power supply

● TMC3000NF



Pin description

Pin No.	Function	Signal name
1	—	—
2	Vcc	Power supply
3	GND	Power supply ground
4	IC	*
5	X-out	X-axis output
6	Y-out	Y-axis output
7	GND	Signal ground
8 ~ 14	N C	Non Connect

\*Do not connected. (Internal use.)

\* Please feel free to ask us for the type of power supply voltage is V15 and the type of output voltage of  $1V \pm 0.05$  at  $50 \mu T$ .

**Before Using Terrestrial Magnetic Sensor**

- Do not use if dropped or subjected to strong physical shock.
- Do not use in close proximity to strong magnetic fields. Otherwise, the characteristics may be change.