TOKYO KEIKI

Fiber Optic Gyrocompass for Tunnel

TMG-12F Series

General

Three fiber optic gyroscopes and three accelerometers output Azimuth (absolute angle, from true north), Pitch angle and Roll angle.

Features

1: Solid state, strap down construction.
2: No moving parts.
3: Strong against vibration.
4: Compact, small size.
5: Easy to transport.
6: Easy to install.
7: Minimal maintenance.
8: Waterproof.
9: Provides real-time measurement while the tunnel excavation is underway.

Specifications

Measurable range	Azimuth		360 deg
	Pitch angle／Roll angle		±15 deg
Accuracy*	Azimuth		±0.2 deg secant latitude
	Azimuth settle point error		±0.8 deg secant latitude
	Pitch angle／Roll angle		±0.05 deg
Resolution	Azimuth		0.01 deg
	Pitch angle／Roll angle		0.01 deg
Settling time	Azimuth		Less than 2hours from power ON
	Pitch angle／Roll angle		Immediately after power ON
Output signal	RS422／RS232C		
Environmental	Housing	sensing unit	Waterproof (IP67 rating)
		power supply unit	Splash proof
	Operating temperature		−15～55℃ (sensing unit) 0 ～40℃ (non-sensing units)
	Humidity		95% RH or less
	Vibration		5～22.5Hz ±1mm 22.5～100Hz ±20m/s^2
	Shock		100G 6ms
Power supply	100～230VAC, 50/60Hz 120VA or less		
Battery backup time	90 minutes		

*Note: For accuracy, latitude should be set in 0.1 degree (Example: Tokyo 35.7 degrees latitude) units under condition of negligible vibration and temperature variation and temperature range,15～35℃.

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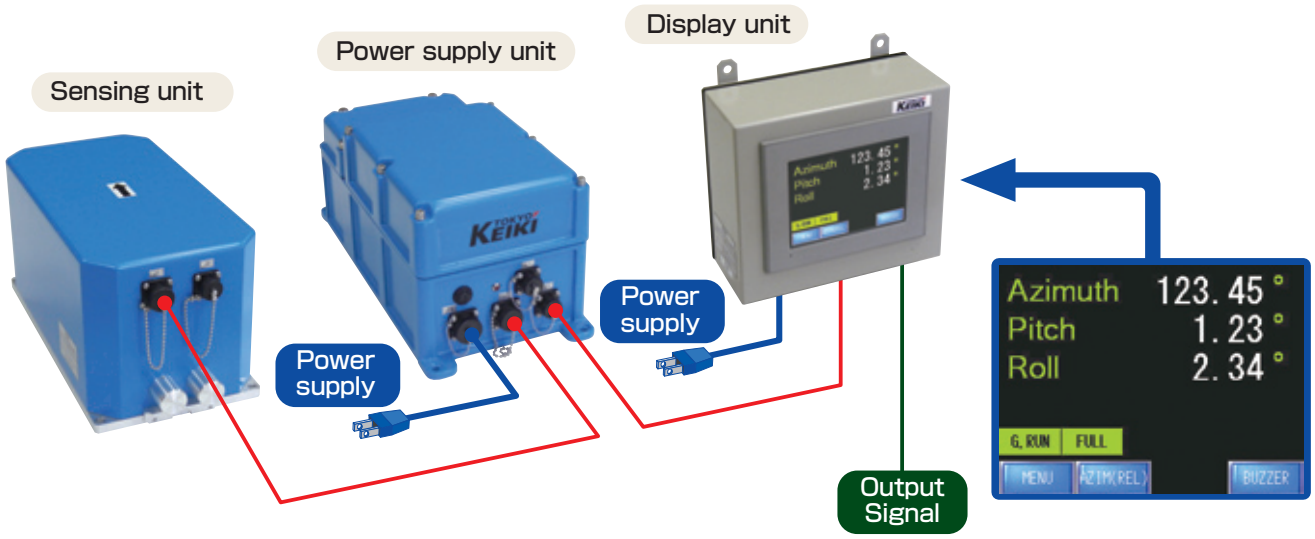
Composition



No	Name	Dimension(mm)			Mass (kg)	Q'ty
		W	D	H		
1	Sensing unit	180	340	180	14	1
2	Power supply unit	180	375	170	11	1
3	Display unit	215	96	190	4	1
4	Cable				(m)	
	Power supply unit — Sensing unit				10m	1
	Power supply unit — Display unit				3m	1
	AC main power supply — Power supply unit				3m	1
	AC main power supply — Display unit				3m	1
	Display unit — Power supply unit extension				50m	

Product may be export regulations.
Design and specifications are subject to change without prior notice, and without any obligation on the part of the manufacturer.

⚠ CAUTION	Before operating this equipment, you should first throughly read the operator's manual.

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http://www.tokyo-keiki.co.jp/const/

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