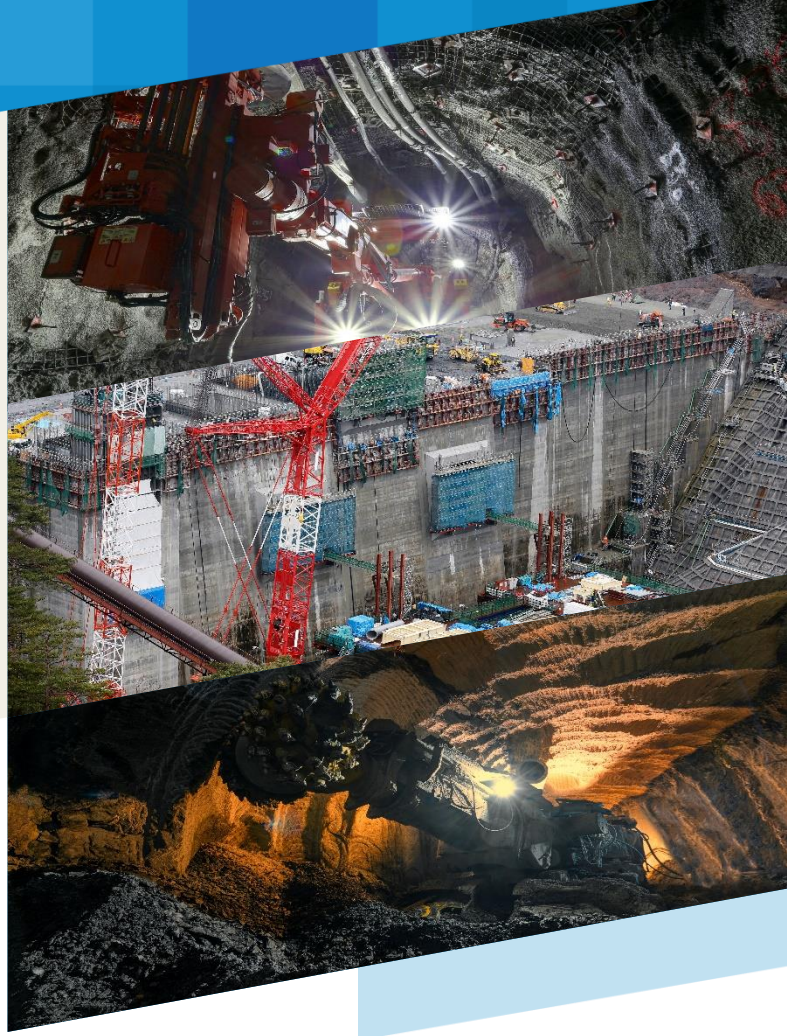
Northfinder™
Attitude & Heading Reference Systems (AHRS)
GCAH-12C-03
(Special model)



Description

- Achieves a more compact size, higher durability, and lower cost compared to RLG and FOG products by adopting MEMS gyroscopes.
- Automatically calculates attitude and heading based on inertial sensor outputs.
- Provides real-time attitude and heading output even in environments where GNSS is unavailable

Application

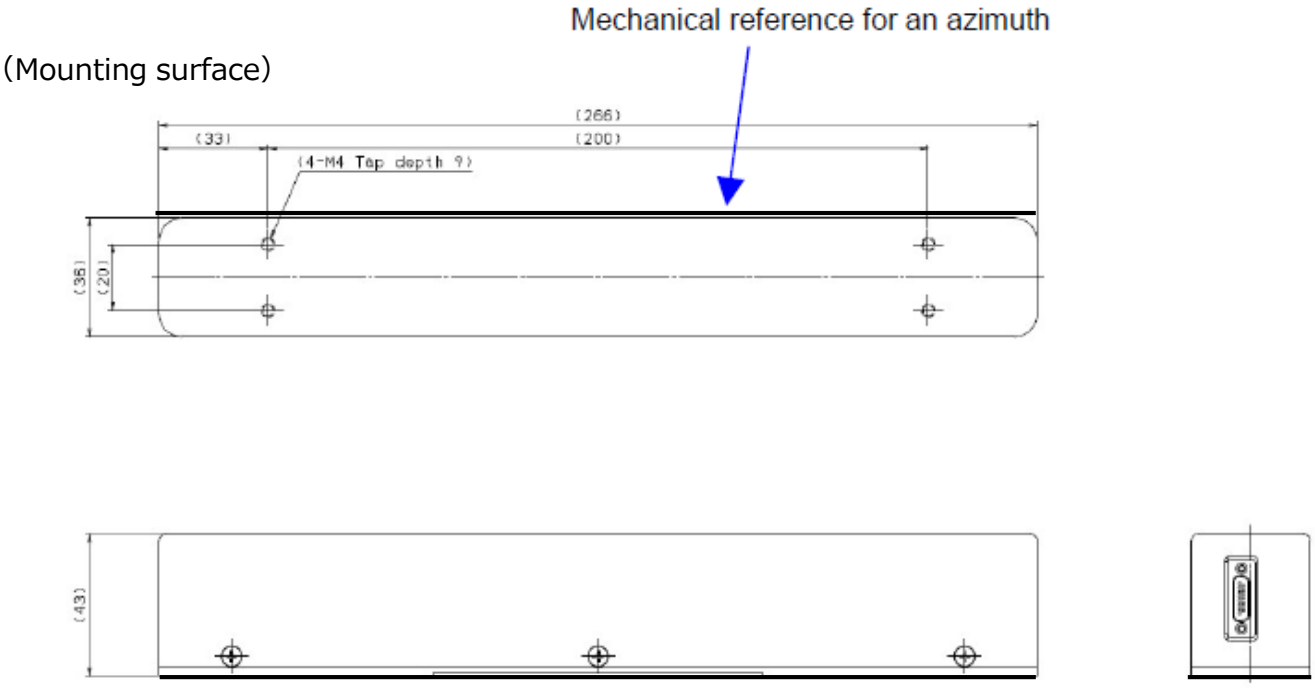
- Monitoring of industrial and construction machinery
- Integration into guidance systems for drilling machines
- Excavation surveys and pipeline mapping
- Requiring true north in environments where GNSS signals are unavailable

Etc.

Technical Data

Item		Value
Static angles Azimuth	Range	±180°
	Accuracy	±1.5°x (cos λ·cos θ)$^{-1}$ (1σ)　(λ : Latitude) *1
Attitude	Range	Pitch(θ) : ±90°,　Roll(ϕ) : ±180°
	Offset error	Pitch: <0.1°rms,　Roll: <0.1°rms x (cos θ)$^{-1}$
	Repeatability	Pitch : < 0.02°(1σ),　Roll : < 0.02°x (cos θ)$^{-1}$ (1σ)
Dynamic angles Azimuth Attitude	Error	< 0.5°max. (Without angle drift)
	Resolution	< 0.05°
	Angle drift	< 3°/h max.
Settling time		1.5 minutes (under static condition)
Electrical Interface		D-sub 15
Communication protocol		RS-422 (Baud rate : 460.8/230.4/115.2 kbps)
Size & Weight		36 x 43 x 266 mm, (Φ30 x 257mm), 700 g
Supply voltage		7.5 to 18 VDC (Typical 12 VDC)
Power consumption		< 1.5 W
Temperature range		-10 to 50 ℃ (Performance) -20 to 65 ℃ (Operation & Storage)

* 1 Target rms value



SUMITOMO PRECISION PRODUCTS CO., LTD.

MEMS ∞ DEPARTMENT
1-10 Fuso-Cho, Amagasaki, Hyogo 660-0891, Japan
T +81(0) 6-6489 5917　E mems-sales@spp.co.jp

Visit
https://www.spp.co.jp/mems/en

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