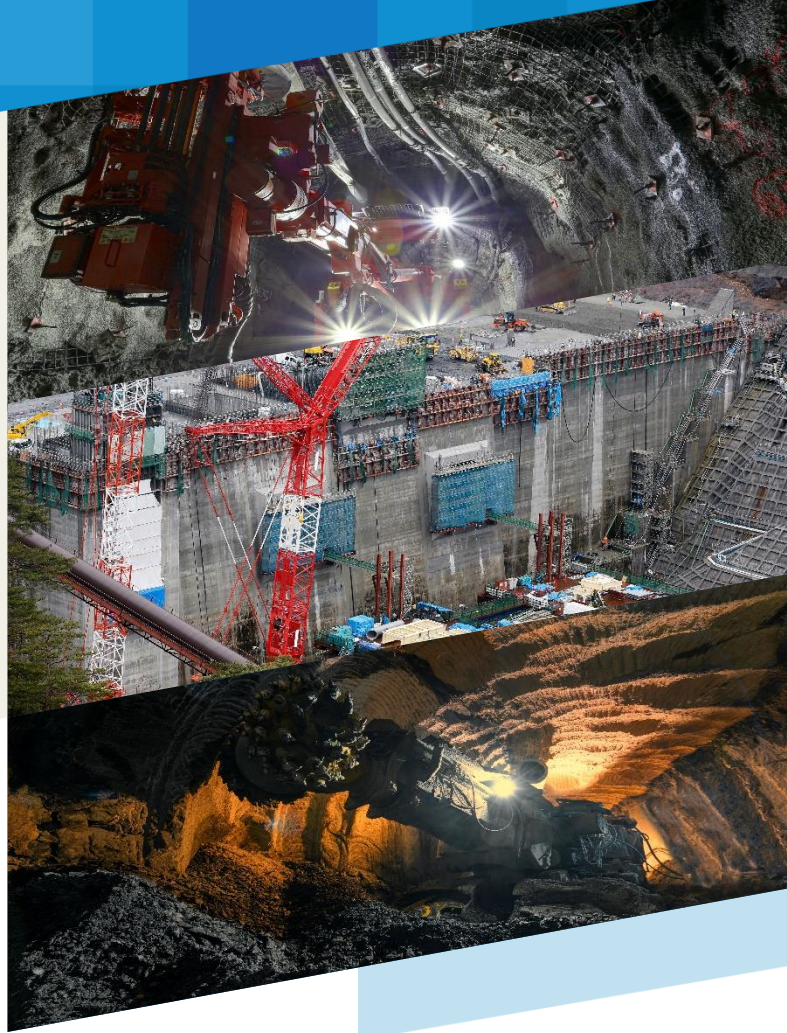


# Northfinder™ Attitude & Heading Reference Systems (AHRS) **GCAH-12C-04** (Regular model)



Northfinder.



## ○ 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.

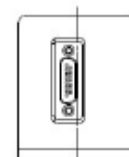
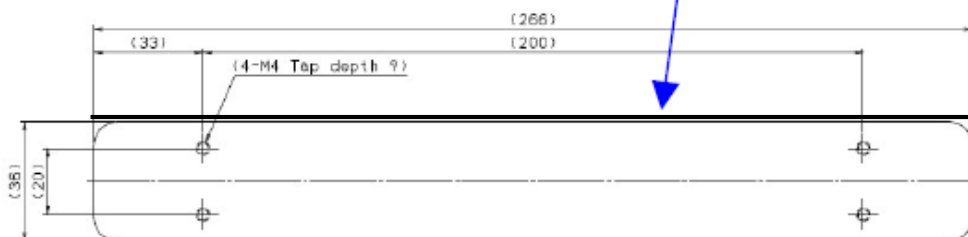
# Technical Data

Item		Value
Static angles Azimuth	Range	±180°
	Accuracy	±2.5° × (cos λ · cos θ) <sup>-1</sup> (1σ) (λ : Latitude) * <sup>1</sup>
Attitude	Range	Pitch(θ) : ±90°, Roll(φ) : ±180°
	Offset error	Pitch: <0.1°rms, Roll: <0.1°rms × (cos θ) <sup>-1</sup>
	Repeatability	Pitch : < 0.02°(1σ), Roll : < 0.02° × (cos θ) <sup>-1</sup> (1σ)
Dynamic angles Azimuth Attitude	Error	< 0.5°max. (Without angle drift)
	Resolution	< 0.05°
	Angle drift	< 5°/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 °C (Performance) -20 to 65 °C (Operation & Storage)

\* 1 Target rms value

## Mechanical reference for an azimuth

(Mounting surface)



Due to circumstances such as changes in material suppliers, product specifications may be changed without prior notice. This product is not compliant with RoHS regulations. We shall not be liable for any damages arising from the use of this product. This product is intended for general industrial applications. For use in fields requiring high safety standards, such as aerospace or nuclear applications, please consult us in advance. Please confirm delivery times and stock availability as needed. For information regarding warranty periods and after-sales service, please contact us separately. This product may be subject to export control regulations.

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