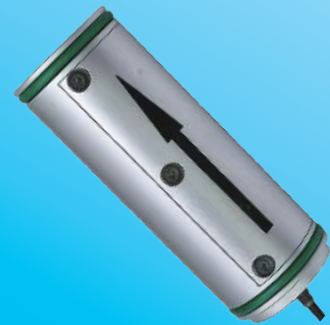




ANF-301B

MEMS North Seeker

The ANF-301B can continuously track and measure changes in inclination, tool face, and azimuth. The product is designed with shock absorption and high-temperature resistance. It enables precise measurement of the carrier's angular and linear motion parameters even in harsh environments. It can be applied in resource exploration fields such as coal mining and petroleum.

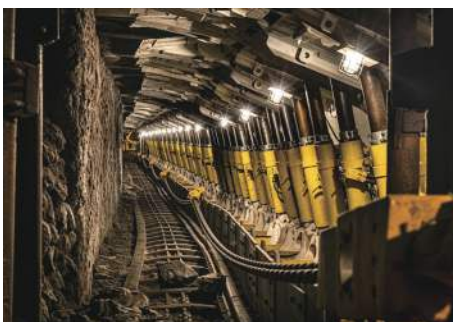


- **High-temperature operation**
- **Supports zero-bias compensation to maintain heading accuracy over time**
- **Configurable homing time**
- **Supports installation misalignment angle compensation**
- **Adaptability and reliability in harsh dynamic environments**

Application Scenarios



Petroleum Exploration

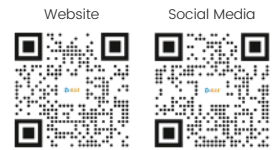


Underground Mining



Pipeline Surveying

ANF-301B



— Gyroscope

Measurement Range (°/s)	±200	Full Temperature Bias (°/h, 3 σ)	≤0.6
Bias Stability (°/h, 10 s smoothing)	≤0.1	Bias Instability (°/h, Allan, typ)	≤0.02
Bias Repeatability (°/h)	≤0.1	Angle Random Walk (°/√h)	≤0.01
Scale Factor Nonlinearity (ppm)	≤100	Cross Coupling (rad)	≤0.001
Bandwidth (Hz)	≥50		

— Accelerometer

Measurement Range (g)	±30	Full Temperature Bias (mg, 3 σ)	≤3
Bias Stability (μg, 10 s smoothing)	≤100	Bias Instability (μg, Allan, typ)	≤50
Bias Repeatability (μg)	≤100	Velocity Random Walk (m/s/√h)	≤0.04
Scale Factor Nonlinearity (ppm, ±1 g)	≤100	Cross Coupling (rad)	≤0.001
Bandwidth (Hz)	≥50		

— Navigation Accuracy

Self-alignment Accuracy (°, 1 σ)	≤1*sec L (L represents local latitude)
Attitude Accuracy (°, 1 σ)	≤0.2

— Physical Characteristics

Power Supply (V)	5~12	Steady-State Power Consumption (W)	≤2
Startup Time (s)	≤2	Update Rate (Hz, max)	200
Dimensions (mm × mm × mm)	Φ31.8 × 85	Weight (g)	145 ± 10 g

— Environmental Conditions

Operating Temperature (°C)	-40 ~ +120	Storage Temperature (°C)	-55 ~ +85
Vibration (g, RMS)	20~2000 HZ, 6.06	Shock (g)	500 g / 1ms