CESCO EQUIPMENT

Shape Accel Arrays(saa)

The GS-SAA02 Array Displacement Meter delivers high-precision real-time displacement monitoring for hydraulic structures, slopes, and foundations. Featuring advanced MEMS technology, temperature compensation, and torsional correction, it provides reliable long-term performance in demanding environments.

FEATURES

Temperature Compensation	Advanced temperature zone compensation eliminates drift between -40°C and 60°C for stable long-term monitoring.
High Measurement Accuracy	Fully automated factory calibration ensures precise X, Y, and Z direction accuracy with displacement resolution up to 0.005 mm per 500 mm section.
Offset Correction	Corrects installation alignment deviations to maintain accurate monitoring direction.
Torsional Correction	Automatically compensates for inclinometer tube twisting during monitoring to maintain reliable measurement results.
Segmented Modular Design	Flexible segmented construction allows onsite length configuration and reuse across multiple monitoring projects.
Real-Time Monitoring	Captures and replays deformation trajectories in real time for ongoing structural analysis.
Rugged Environmental Performance	Designed to operate in harsh environments with waterproof protection up to 200 m underwater.

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SPECIFICATIONS

Model	GS-SAA02
Working Method	MEMS acceleration
Measurement Range	0–360°
Measurement Accuracy	±0.002° / ±0.005° / ±0.012°
Displacement Resolution	0.02 mm / 0.05 mm / 0.1 mm @ 500 mm
Tensile Guarantee	550 kgf
Waterproof Rating	200 m underwater (2 MPa)
Operating Environment	-40°C to 60°C (Humidity ≤95%)
Magnetic Field Interference	No impact
Electric Field Interference	No impact
Deformation Trajectory	Real-time playback
Section Length Options	0.3 m / 0.5 m / 1 m
Maximum Bending Angle	180°
Sensor Length	Customisable
Anti-Twist Correction Accuracy	Better than ±1° / ±1.2° / ±1.8°
Power Consumption	DC12V 3.2mA/node

APPLICATIONS

Ideal for deep horizontal displacement monitoring applications, the GS-SAA02 Array Displacement Meter is suited to hydraulic structures, slopes, foundations, retaining systems, and other critical infrastructure where accurate long-term deformation monitoring is essential.

For more information about the GS-SAA02 Array Displacement Meter or to discuss your project monitoring requirements, contact the team at CESCO Equipment. Our specialists can assist with product selection, technical advice, and tailored monitoring solutions for your application.

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