



breva

Biaxial Tiltmeter



Overview

GeoSIG's *breva* is a biaxial tiltmeter featuring a high resolution and a shock resistant-sensor with long term stability. It measures the angle, slope, or tilt in two orthogonal directions for use in various applications.

Applications

- ▶ Structural Health and Response Monitoring
- ▶ Geotechnical (slope stability)
- ▶ Platform / Rig / Track alignment

Specifications

Sensor Element

Measuring range: $\pm 3^\circ$
 Resolution: $< 0.005^\circ$
 Repeatability at 0° : $< 0.01^\circ$
 Noise: 0.0004°

Measuring direction: X and Y Axes
 Cross axis sensitivity: 4 %
 Damping: 18 Hz
 Shock resistance: 20'000 g
 Output signal: ± 10 V
 Offset = V_{out} in 0° : 0 V
 Temperature dependency: $< 0.003^\circ/\text{C}$

Power

DC power supply: 7 - 30 VDC, protected by OVP

Key Features

- ▶ Measures static and dynamic tilt
- ▶ Senses in positive and negative directions
- ▶ Large output span of - 10V to + 10V output over the measuring range
- ▶ Shock resistance more than 20'000 g
- ▶ High resolution $< 0.005\%$ over range
- ▶ High repeatability $< 0.01\%$ over range
- ▶ Built-in three-point leveling screws for easy installation

Environment / Housing

Housing type:	Cast aluminium, sealed access cover
Housing size:	195 x 112 x 95 mm
Index of protection:	IP65 optional IP68
Operational temperature:	- 30 °C to + 85 °C
Storage temperature:	- 30 °C to + 85 °C
Humidity:	0 % to 100 % (non-condensing)
Orientation:	Floor mounted
Mounting:	Single bolt, surface mount, adjustable within $\pm 3^\circ$

