

Applications

BSIL-C12C/ C12G Tiltensors are designed to measure tilt in structures, including buildings, dams, embankments, slopes, retaining walls, open pits, etc.

Description

The Model BSIL-C12C MEMS Tiltensor is designed for attachment to structures, on either a vertical or horizontal surface, and for the subsequent measurement of any tilting that may occur. The sensor itself is a MEMS (Micro-Electro-Mechanical Systems) sensor which offers a high range, with high sensitivity and accuracy. The included associated signal conditioning yields an output of ± 4 V at $\pm 15^\circ$ and designed to drive long cables without degradation.

The Model BSIL-C12G Tiltensor is also designed for attachment to structures, on either a vertical or horizontal surface to measure any tilting that may occur, but is packaged in a rugged steel enclosure with a mounting plate. BSIL- C12G is a small-range tiltensor which offers high sensitivity and accuracy (Resolution to 0.2"), designed for precision measurement of the structure.

Key Features

- ◆ Accurate and precise measurements
- ◆ Robust design and reliable
- ◆ Fit for manual or remote reading

- ◆ Available in uniaxial and biaxial versions
- ◆ Inbuilt temperature compensation



Comprehensive information about this product and our full range is available at www.bsil.com.cn
 If you would prefer to speak with someone directly, please call +86-10-63780922 or email info@bsil.com.cn

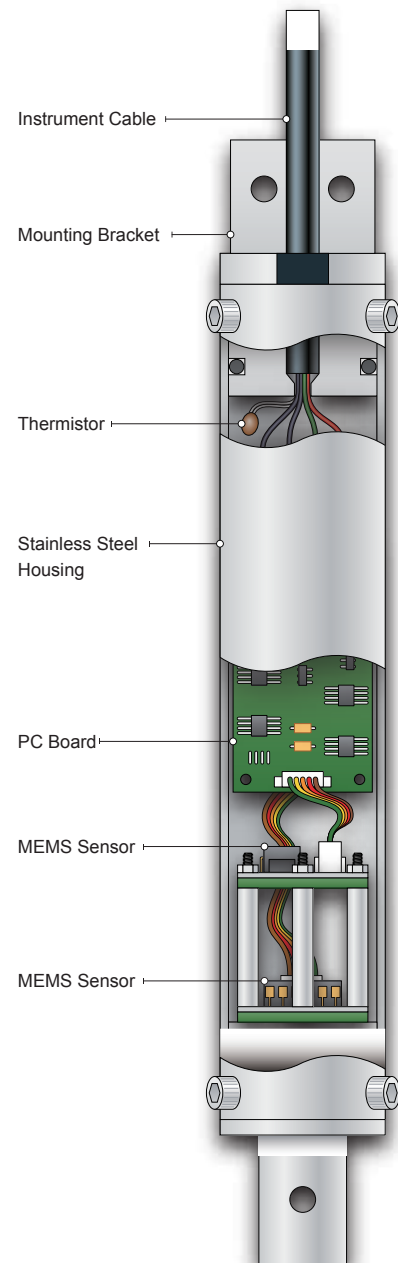
Main Specifications

Model	BSIL-C12C		BSIL-C12G
Range	±15° (Vertical)	±15° (Horizontal)	±0.25°/±0.5° (Vertical)
Resolution	<10 arc seconds		<0.5" (0.0001°)
Accuracy	±0.1% F.S.		<1" (0.0002°)
Operating Temperature	-20 to + 80°C		-20 to + 80°C
Sensor Output	±4V@±15°		0.25~4.75V
Input Voltage	12 VDC		12VDC, 15mA
Dimensions	Φ34mm x215mm		(L)70mm x (W)70mm x (H) 40mm

Operation

The Model BSIL-C12C MEMS Tiltensor is designed for attachment to structures, once the location for the MEMS Tiltensor has been established the position is marked out, ensuring that the sensor is correctly orientated towards the direction of movement. The marked locations are drilled to depth and the 8mm shell anchors supplied with the Tiltensor are installed. Studing is screwed into the shell anchors, leaving a sufficient length to incorporate the bracket and the Tiltensor. A spirit level is used to check that the Tiltensor is level in both directions, and then the nuts are securely tightened before the Tiltensor is finally wired into a datalogger.

BSIL- C12G is a small-range tiltensor with high-precision (Resolution is up to 0.2") which is itself placed in an adjustable mount. The sensor is fixed to the structure. Once installed, thumbwheels at one end allow the sensor to be adjusted to the zero position using a handheld readout.



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