

TEL 604 540 1100 info@rstinstruments.com www.rstinstruments.com

> APPLICATIONS Monitoring the effects of tunneling and excavating on nearby buildings and other structures Monitoring the movement of tunnel walls and railway tracks.

Monitoring the stability of structures where slope instability is occurring. Monitoring the deflection of bridges and beams under load. FEATURES

Simple construction with no moving parts to damage. Convenient to install on any structure and easy to use. Beams can be linked together to provide detailed movement data

over long distances. Digital and analog outputs available. In-Place Tilt Meter or Tilt Logger can be mounted on beam. Easily adaptable to data logging. Integral temperature

sensor.

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Fibreglass composite beams minimize thermal effects.

BENEFITS

**Increase Safety** 

**High Reliability** 

**High Accuracy** 

**Custom Option** 

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## Tilt Beam (MEMS)



Tilt Beams measure differential movements in structures and consist of a MEMS sensor mounted on a rigid, fibreglass beam. The beam is mounted on anchor bolts set into the structure. They can be installed on any structure by joining together lengths of beams and are extremely accurate in generating movement profiles over long distances. Readings are taken with a manual readout by connecting at the end of the single cable linking all the bussed beams, or with a data logger at a remote monitoring station. Site specific, near-real time monitoring software is available.

ORDERING					
ITEM	PART #				
MEMS HORIZONTAL TILT BEAM					
Digital Bus Output, 0.5m Tiltbeam	IC6018B-0.5M				
Digital Bus Output, 1.0m Tiltbeam	IC6018B-1.0M				
Digital Bus Output, 1.5m Tiltbeam	IC6018B-1.5M				
Digital Bus Output, 2.0m Tiltbeam	IC6018B-2.0M				
Digital Bus Output, 3.0m Tiltbeam	IC6018B-3.0M				
MEMS VERTICAL TILT BEAM					
Digital Bus Output, 0.5m Tiltbeam	IC6083B-0.5M				
Digital Bus Output, 1.0m Tiltbeam	IC6083B-1.0M				
Digital Bus Output, 1.5m Tiltbeam	IC6083B-1.5M				
Digital Bus Output, 2.0m Tiltbeam	IC6083B-2.0M				
Digital Bus Output, 3.0m Tiltbeam	IC6083B-3.0M				
READOUTS & DATA LOGGERS					
Rugged Handheld PC	IC32000-NAUTIZ				
Digital Interface for Rugged Handheld PC with Software	ELGL4010				
RSTAR DT2485 DT-Bus Data Logger	DT2485				
FlexDAQ Dataloggers and RSTAR Affinity D	ataloggers				
ACCESSORIES					
Tiltbeam Installation Kit, Groutable Anchor Kit	IC6020				
Tiltbeam Installation Kit, Expandable Anchor Kit	IC6021				
Top Cable with Male M12, 5m	IC6050-M-5M				
Top Cable with Male M12, 10m	IC6050-M-10M				
Top Cable with Male M12, 20m	IC6050-M-20M				
M12 Cable Plug Female	IC6050-F-Plug				
Top Cable with Female M12, 5m	IC6050-F-5M				
Top Cable with Female M12, 10m	IC6050-F-10M				
Top Cable with Female M12, 20m	IC6050-F-20M				
M12 Cable Plug Male	IC6050-M-Plug				
Extension Cable, Male-Female M12 - 5m Sensor to Sensor	IC6030-5M				

SPECIFICAT	TIONS
Range	±30°
Resolution	±0.0002° (0.004 mm/m) <sup>1</sup>
Sensor	±0.0013° (0.02 mm/m) <sup>1</sup>
Precision Sensor 24hr Stability Sensor	±0.0005°(0.01 mm/m) <sup>2</sup>
	±0.03 mm/m <sup>1</sup>
	±0.01 mm/m <sup>2</sup>
	MEMS Acceleromet
Temperature	±0.016 mm/m/°C (±0.001°/°C), for ±5 from vertical
Dependent Uncertainty	±0.033 mm/m/°C (±0.002°/°C), for ±1 from vertical
Tananawatuwa	±0.5 °C (0 °C to 60 °
Iemperature Accuracy	±1.0 °C (-40 °C to 60 °C)
Temperature Resolution	0.06 °C
Operating Temperature	-40 to 60°C (-40 to 140°F)

IS NUM

Available for

QUICK

DELIVERY

Contact RST for Details

(MOUNTING BRACKETS INCLUDED)						
Beam	51 X 51 mm					
Dimensions	(2 X 2 in.)					

Gauge Length	0.5, 1, 1.5, 2 or 3 m (1.5, 3, 5, 10 ft.)
99% Confidence In	terval

2: 68% Confidence Interval



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