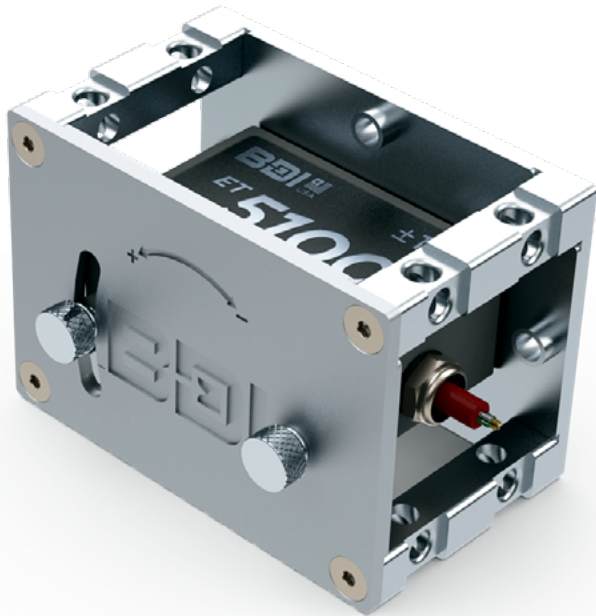


# T500 | ELECTROLYTIC TILTMETER



THE T500 TILTMETER IS AN ELECTROLYTIC FLUID-BASED TILT SENSOR THAT CAN BE USED FOR PRECISION ROTATION MEASUREMENTS, GENERALLY OVER A SHORT PERIOD OF TIME. THESE UNITS CONNECT DIRECTLY TO OUR STRUCTURAL TESTING SYSTEM, STRUCTURAL MONITORING SYSTEMS, AND ARE ALSO COMPATIBLE WITH MOST GENERIC DATA ACQUISITION SYSTEMS. THE RUGGED ALUMINUM HOUSINGS PROVIDE BOTH EASY MOUNTING AND MECHANICAL ZERO-ADJUSTMENT CAPABILITY.

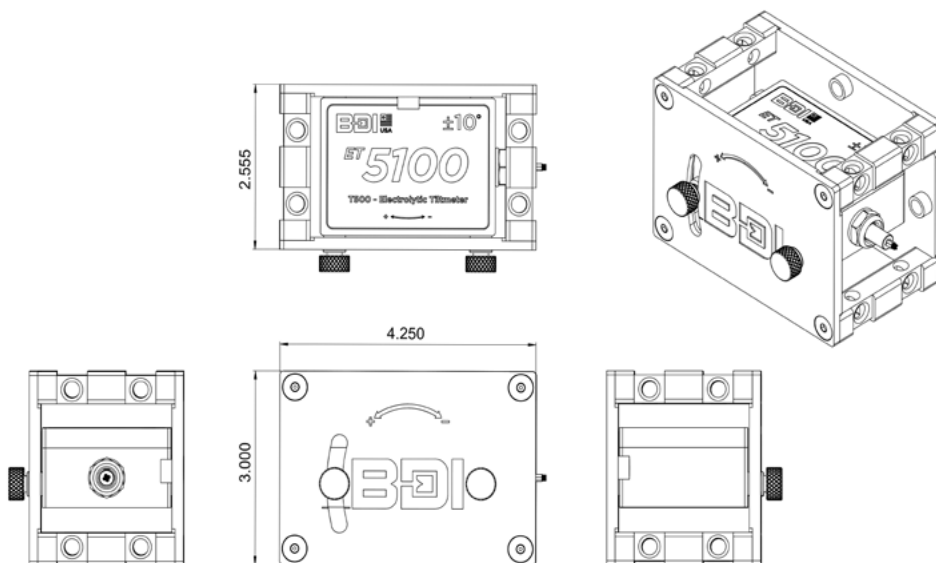
## FEATURES

- + Simple & quick range adjustment
- + Mounting tabs for adhesive application
- + Measurement range from  $\pm 0.5^\circ$  to  $\pm 60^\circ$
- + 4 mounting configurations
- + Designed to exceed IP67
- + High accuracy
- + Sub-arc second resolution
- + Internal signal conditioning
- + Overload protection

## APPLICATIONS

- + Rotation in bridge slabs, beams, and piers due to live load
- + Retaining wall or abutment movement during construction
- + Rotation angle of tainter gates during operation

## DIMENSIONS



## SPECIFICATIONS

MODEL	T500-005	T500-030	T500-100	T500-600
LINEAR RANGE (ARC DEGREES)	±0.5	±3	±10	±60
TOTAL RANGE (ARC DEGREES)	±1	±6	±15	±80
OUTPUT (MV/ARC SECOND)	1	0.4	-	-
OUTPUT (MV/ARC DEGREE)	-	-	420	160
RESOLUTION (ARC DEGREES)	< 0.0001	< 0.0003	< 0.0005	< 0.001
NULL REPEATABILITY (ARC DEGREES)	< 0.0008	< 0.0008	< 0.001	< 0.02
SYMMETRY @ 1/2 LINEAR SCALE (%)	< 2	< 2	< 2	< 2
ACCURACY @ 1/2 LINEAR SCALE (%FS)	-	< 2	< 2	< 0.8
ACCURACY @ FULL SCALE (%FS)	-	< 8	< 5	< 3
NULL IMPEDANCE (KOHMS) +/-20%	1	12	40	8
NULL STABILITY, 12 HRS @ 25 DEG. C (ARC DEG'S, TYP.)	< 0.005	< 0.005	< 0.001	< 0.005
SETTLEMENT TIME (SECONDS)	~1.1	~1.2	~0.75	~1.0
EXCITATION VOLTAGE	+5 to +15 V <sub>dc</sub>			
POWER RATING MAX TYPICAL INTELLIDUCER <sup>1</sup>	75 mW 2.5 mW @ +5.0 V <sub>dc</sub> 13 mW @ +5.0 V <sub>dc</sub>			
INPUT IMPEDANCE	5 MΩ			
OUTPUT	±2 V <sub>dc</sub>			
OPERATING TEMPERATURE	-13 °F to 158 °F (-25 °C to 70 °C)			
STORAGE TEMPERATURE	-40 °F to 176 °F (-40 °C to 80 °C)			
TEMP. COEFFICIENT OF SCALE (%/°C, TYP.)	0.6	0.6	0.1	0.1
CABLE	Custom lead cable length made to order: IC-02-187 [22 AWG, 2 shielded pair, drain wire, red PVC jacket] IC-02-250 [22 AWG, 2 shielded pair, drain wire, blue PVC jacket] IC-03-250 [24 AWG, 3 shielded pair, drain wire, black PVC jacket]			
HOUSING	Machined 6061-Aluminum			
CORROSION PROTECTION	Hard Anodized Clear (MIL-A-8625 Type III)			
WEATHER PROOFING	Designed to exceed IP67			
DIMENSIONS	4.25 x 2.6 x 3 (108 x 66 x 76 mm)			
WEIGHT	1.2 lb (544 g)			
MOUNTING	Through holes for ¼ in (M6) bolts or anchors on five sides Reusable mounting tabs (gluing/welding)			

<sup>1</sup> Intelliducer connector required with STS4 Intelliducer data acquisition nodes.

Available on:  **GSA Schedule**  
Contract GS07F197CA

## OPTIONS & ACCESSORIES



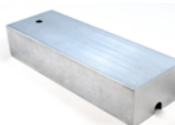
**Intelliducer Connector** - Required for use with STS Intelliducer Nodes, cable is connected and potted for a weatherproof seal.



**Reusable Mounting Tabs** - ¼-20 or M6, zinc plated steel mounting tab.



**Integrated Thermistor** - Temperature range of -55 °C to +220 °C, ±0.5 °C accuracy.



**Protective Covers** - Insulated aluminum protective covers