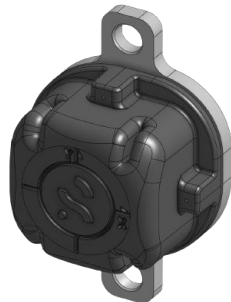


The Sensotek Tau® sensor range is used to continuously monitor your vibratory equipment. Reporting key parameters to our cloud based Analytix® platform, these values can be trended over time and used to identify faults or inefficiencies with your equipment.



Magnetic



Bolted

Tau E Bearing Datasheet

The Sensotek Tau® E Bearing sensor ANTS1002 is a triaxial vibration and temperature sensor for rotating equipment monitoring. A ruggedised design with a low profile to withstand harsh environments.

Key Applications

- Mining and mineral processing
- Aggregate processing
- Any machine with a rotating element:
 - Pumps
 - Fans
 - Motors

Product Highlights

Improved battery life (4+ years)
Waveform sampling
Stronger magnetic fitting

Product Variant

TB- <i>m</i> 01	
<i>m</i> – mounting method	
0	Magnetic
1	Bolted
2	Stud mount

Mechanical

Physical	
Dimensions	See dimension section
Weight (Magnet)	260g
Weight (Bolted)	240g
Lid Material – Lid	POM-GF20
Material – Magnetic Base	Anodised Aluminium
Material – Bolted Base	Stainless Steel
Environmental	
Operating Temperature	-40 to 85°C (-40 to 185°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Sealing	IP69K
Shock	1000g

Power Supply

Battery	
Type	Non-Replaceable 3.6V
Energy	1700mAh (New)
Chemistry	Lithium Thionyl Chloride
Life (Standard)	4+ years
Impact to Life	Temperature Humidity Transmission Rate

Communication

Data Sampling	
Rate (Short Interval)	1 minute
Rate (Long Interval)	12 hours
Data Transmission	
Effective Range	250 meters Line-of-Sight
Frequency	433.4 MHz
Sensotek Channel	Channel 2

Measurement

Temperature	
Temperature Range	-40 to 85°C (-40 to 185°F)
Temperature Accuracy	±2°C
Vibration	
Axes	X, Y, Z
Sampling Frequency	See sampling section
Range – Acceleration	± 16g Autoscaling

Tau E Bearing Datasheet

Short Interval Data – Overall Values	
Sample Rate (Temperature)	1 minute
Sample Rate (Vibration)	3 minutes
Measurements	Temperature Velocity RMS Acceleration RMS Acceleration Pk-Pk
Sample Window	200ms
Sample Frequency	6.4 kHz
Sample Rate (Temperature)	1 minute
Sample Rate (Vibration)	3 minutes
Measurements	Temperature Velocity RMS Acceleration RMS Acceleration Pk-Pk

Long Interval Data – Time Waveform and Spectrum		
Sample Rate	12 hours	
Type of Measurement	High	Full
Purpose	Speed Ident.	Vib. Analysis
Sample Window	2938ms	625ms
Sample Frequency	1.4kHz	6.4kHz
Number of Samples	4096	
Max Freq (Fmax)	550Hz	2500Hz
Lines of Resolution (LOR)	1600	
Bin Resolution	0.34Hz	1.56Hz
FFT Windowing	None or Hann	
Calculated Values	Pk-Pk Crest Factor Spectrum Bands	

Tau E Bearing Datasheet

Dimensions		
	Standard – Magnetic mounting option	Bolted mounting option
Dimensions	62mm x 46.5mm x Ø 38.5mm	62mm x 35mm x 96mm
Weight	260g	240g
Base Material	Aluminium (Clear Anodised)	Stainless Steel 304

