Sensoteq®

Kappa Datasheet

The Sensoteq Kappa® sensor range is used to continuously monitor your rotating 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 and processes.

The Kappa® sensor range has been specifically developed to identify faults for plant machinery in a variety of settings.

Key Applications

- Pumps, Fans
- Compressors, Chillers
- Grinders
- Wind Turbines
- Any machine with:
  - Bearings
  - Rotating parts

Part Numbering
AN-S01-001-P3C2

Mechanical	
Physical	
Dimensions	Shown on next page
Weight (Magnet)	270g
Weight (Bolted)	250g
Lid Material – Lid	POM-GF20
Material – Magnetic Base	Nickel Plated Mild Steel
Material – Bolted Base	Stainless Steel
Mounting Options (*m*)	0 = Magnetic 1 = Bolted
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 Source	
Battery	
Type	Non-Replaceable 3.6V
Chemistry	Lithium Thionyl Chloride
Life	3+ years
Impact to Life	Temperature, Transmission Rate Sampling Rate

Communication	
Data Transmission	
Rate (Awake)	1 minute
Rate (Sleep)	10 minutes
Effective Range	250 meters Line-of-Sight
Frequency	<1GHz ISM Band
Sensoteq Channel	Channel 2

Measurements	
Temperature	
Temperature Range	-40 to 85°C (-40 to 185°F)
Temperature Accuracy	±2°C
Vibration (more info on next page)	
Axes	X, Y, Z
Sampling Frequency	6400Hz (2500Hz Fmax)
Range - Acceleration	±16g Autoscaling

Sensoteq®

Kappa Datasheet

The Sensoteq Kappa® sensor range is used to continuously monitor your rotating 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 and processes.

Short Interval Data – Overall Values	
Parameter	**Unit**
Sample Rate (Temperature)	1 minute
Sample Rate (Vibration)	3 minutes
Measurements	Temperature RMS Velocity RMS Acceleration Waveform Peak to Peak
Sample Window	200ms
Sample Frequency	6.4kHz

Long Interval Data – Time Waveform & Spectrum		
Parameter	**Unit**	
Sample Rate	12 hours	
Axes	X, Y, Z (for all types)	
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	

Sensor Dimensions