



Endpoint 3XS

Assembled product Model No.: **AC000009**

Sub-assembly part No.: SA000005

(Part of APUS* the Augury Continuous Monitoring System)

*Temporary name

Technical Datasheet

Revised 11/05/2017

Endpoint-3XS Cat NO. AC000009

General description:

The Augury Endpoint 3XS is a smart wireless vibration, temperature, and magnetic sensor. The Endpoint-3XS enables real-time continuous health monitoring of rotating machinery. The Endpoint is part of the Augury continuous monitoring solution system giving a comprehensive picture of the machinery status for enhanced operations, reliability and maintenance practices. The endpoint it connects via BLE to the Augury Gateway and sends critical information about the machine for the Augury analytics and monitoring APPs.

Accelerometer

	Value
Number of sensors	Tri-Axial
Sensitivity	$40mV/g$
Measurement range	$\pm 50g$
Dynamic Range	$11KHz$
Repeatability	$< 2\%$
Temperature dependence	$0.1\%/^{\circ}C$
Noise floor	$80\mu g/\sqrt{Hz}$

Low power Accelerometer

	Value
Number of sensors	Tri-Axial
Dynamic Range	$200Hz$
Sensitivity	$1mg/LSB$
Noise floor	$5mg/\sqrt{Hz}$

Magnetic Sensor

	Value
Sensitivity	$3.125mV/Gauss$
Measurement range	$\pm 600 Gauss$
Dynamic Range	$10KHz$
Repeatability	$< 2\%$
Frequency accuracy	$0.5mGauss/\sqrt{Hz}$

Temperature Sensor

	Value
Temperature Range	-40 ~ 125 °C (-40 ~ 257 °F)
Temperature Accuracy	±1 °F (±1 °C)
Temperature sensitivity	$dR/dT = 0.02R_0$

Wireless specification

	Value
Radio	2.4 GHz
<p>This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:</p> <ul style="list-style-type: none">- Reorient or relocate the receiving antenna.- Increase the separation between the equipment and receiver.- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.- Consult the dealer or an experienced radio/TV technician for help.	
<p>Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Augury Systems Ltd.) could void the user's authority to operate the equipment.</p>	
<p>To comply with FCC and IC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.</p>	
<p>This device complies with FCC Rules Part 15 and with Industry Canada license-exempt RSS standard(s). Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.</p>	

Environmental Specifications

	Value
Operating Temperature Range	-40~85 °C (-40~185°F)
Safety	UL 94-V0
Sealing	IP67
Hazardous environment	Atex zone 0 class 1 div 1 (Equivalent Ex I M1 Ex ia I Ma and Ex II 1 G Ex ia IIC T3 Ga)
Solvent resistant	
Contact temperature	Up to 110°C (230°F)
Compliance	CE, IEC

Electrical Specifications

	Value
Battery type	Primary lithium-thionyl chloride (Li-SOCl ₂), C size with connector - Use only Augury Batters
Battery voltage	3.6V
Battery capacity	8.5Ah
Operating time	3Y (Depending on sample cycle)
Memory	2 days of full vibration sample (depending on sampling cycle)

Mechanical Specifications

	Value
Size	49mm × 49mm × 85mm (1.92" × 1.92" × 3.34")
Weight	185 gr (6.52 Oz)
Case material	Anodized Aluminum, reinforced polyamide (V0)
Mounting	Augury Stainless steel stud