ASYSTOM
Universal Smart Monitoring Solution
for Predictive Maintenance

PRODUCT SHEET ASYSTOMSENTINEL (Ex) VERSION

A unique, innovative and scalable technology to monitor industrial machines regardless of design or age, certified for zone 1 explosive gas atmosphere other than mines susceptible to firedamp.

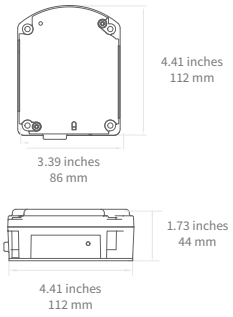
A TURNKEY SOLUTION

AsystomSentinel is an intelligent, multi-sensor device that captures and analyzes the signals from equipment and autonomously communicates the results to a secured, private cloud server via wireless LoRa (LongRange) network. It provides real-time status of each monitored equipment and alerts in case of anomalies. All the collected data are available from a visualization platform that can be consulted on all media. The AsystomSentinel device is managed remotely through the same visualization platform.

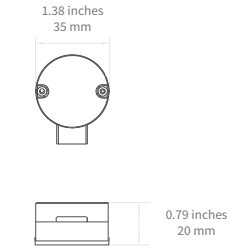
AsystomSentinel device works on motors, pumps & valves + Gateway + Cloud Services + Visualization platform

		SPECIFICATIONS
WEIGHT		1,10 lbs, 500 g (with battery)
MOUNTING		Very high bonding adhesive qualified by Asystom Other mounting option, contact us
SENSORS	Monitoring	Vibration analysis: Typical Bandwidth: 2Hz to1750 Hz Sampling rate: 4.5 kHz Full scale range: +/- 16g Typical RMS noise: 7 mg Nonlinearity: +\- 0.5 % Acoustic analysis: Typical Bandwidth: 70 kHz Sampling rate: 180 kHz (120 db SPL) Signal-to-Noise: 64.3 dB Total Harmonic Distortion: 0.20% Surface temperature: -20°C to + 80°C -68°F to + 176°F Ambient temperature: 0 to 58°C
	AsystomAdvisor applicability	Rotating machines from 300 RPM. For other use cases contact us.
CONNECTIVITY		LoRa wireless network (Long Range) via private or public LoRaWAN (1)
MEASUREMENTS		Statistical (RMS, Peak, Kurtosis) or Frequency domain (FFT Zoom) Periodicity adjustable down to 1 minute in good radio condition. Measurement can be set upon a wake up event
COMMUNICATION		Bidirectional between devices and server Maximum TX Power : +14 dBm Modulation : LoRa
POWER		4xAA lithium batteries up to 10 years autonomy. (typical at 1 measurement per hour)
ENVIRONMENT		Operating temperature: Main Unit: -20°C to +58°C (-68°F to + 136°F) Extension Probe: -20°C to 80°C (-68°F to +176°F) Relative Humidity: Designed for outdoor use
CASING		IP 66 and ATEX/IECEx

AsystomSentinel BX-DLX Main Unit

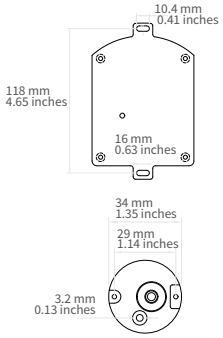


Extension Probe



The length of the cable between the device and the extension probe is 50 cm / 20 inches.

Optional pads for secured mounting with adhesives + screws



Contact :
info@asystom.com

Infos on :
www.asystom.com

PRODUCT REFERENCE

PREDICTIVE DEVICE (ASYSTOMSENTINEL)

BX-DLX-10x-xx

Part of this product reference relates to internal information.

LORA VERSIONS BY REGIONS

Ref.	Model	Frequency	Region
0	EU868	863-870 MHz	Europe, MEA
1	US915	902-928 MHz	North America
2	AS923	923 MHz	Asia Pacific
3	AU915	915-928 MHz	Brazil, Peru, Australia
(1)			Other

[1] Contact us for more information.

ASYSTOMSENTINEL INTELLIGENT DEVICE

ADDITIONAL ASYSTOMSENTINEL MODELS		
		STANDARD FEATURE
MODELS	BI-DLX (Outdoor)	Vibration analysis Acoustic analysis Contact temperature Battery life extension External Synchronization Option : Current loop 0-24 mA Contact (On / Off) - Maximum 24V

CERTIFICATIONS

The marking on the product indicates conformance to the following certifications. Copies of the certificates are available upon request.

3V
0.3A max

Rated voltage and maximum current

Waste management (WEEE)

REFERENCE	DESCRIPTION
2011/65/EU	Restriction of hazardous substances (RoHS)
2012/19/EU	Waste of electrical & electronic (WEEE)
2014/30/EU	Electromagnetic compatibility (EMC)
2014/34/EU	Equipment and protective systems intended for use in potentially explosive atmospheres
2014/53/EU	Radio Equipment (RED)
ETSI CEI 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use

(Ex) II 2 G CE 0080

IECEx INE 20.0067X
INERIS 20ATEX0056X
Ex ib mb IIC T4 Gb

303057

CSA 23CA80146637X
Class I, Div 2, Groups A, B, C, D T4
Ex ib mb IIC T4 Gb
Class I, Zone 1, AEx ib mb IIC T4 Gb