



## 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.

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.









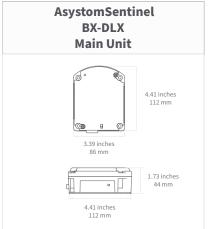
AsystomSentinel device works on motors, pumps & valves

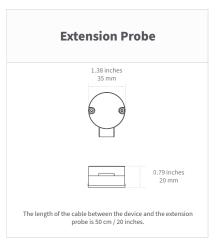
Gateway Cloud Services

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: 1750 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
	Shock detection <sup>(1)</sup>	Alarm threshold adjustable from 15g to 200g Precision 0,3 g (3-axis detection)
	Other sensors <sup>(1)</sup>	Gyroscope
CONNECTIVITY		LoRa wireless network (Long Range) through AsystomLora gateway (gateway sold separately) or, as an option, via private or public LoRaWAN (1)
MEASUREMENT FREQUENCY		Measurement frequency adjustable from 1 minute Measurement can be set upon a wake up event
COMMUNICATION		Bidirectional between devices and server
POWER		4xAA lithium batteries up to 10 years autonomy.
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





Additional option for AsystomSentinel device. Contact us



### **PRODUCT REFERENCE**

PREDICTIVE DEVICE (ASYSTOMSENTINEL)

BX - DLX - 10x - xx

#### ASYSTOMSENTINEL INTELLIGENT DEVICE

DLX

REGIONS	Model	LoRa Versions
Europe, MEA	0	EU868
North America	1	US915
Asia Pacific	2	AS923
Brazil	3	AU915
More	(	2)

# SHOCK OPTION AsystomSentinel without shock option AsystomSentinel with shock option Reference 00 01

# ATEX / IECEx Marking Ex ib mb IIC T4 Gb

### **CERTIFICATION**

The marking on the product certifies that the product conforms to the following guidelines. A copy of the certificate can be provided upon request.











Rated voltage and maximum current

Vaste 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 rules for electrical measuring equipment, regulation and laborator

ATEX / IECEx Certificate	
INERIS 20ATEX0056X IECEx INE 20.0067X	

ADDITIONAL ASYSTOMSENTINEL MODELS				
		STANDARD FEATURES	OPTIONAL FEATURES(1)	
MODELS	BS-DLX (Indoor)	Vibration analysis Acoustic analysis Contact temperature Ambient humidity Ambient temperature	Extension probe	
	BI-DLX (Outdoor)	Vibration analysis Acoustic analysis Contact temperature Battery life extension Extension probe	External Option: Current loop 0-24 mA - Input 0-3V Contact (On / Off) - Maximum 24V Temperature Probe PT100 Thermocouple JKTE External Power Supply	

<sup>&</sup>lt;sup>1</sup>With extension probe, vibration, acoustic and contact temperature measurements are collected from the extension probe.

<sup>&</sup>lt;sup>2</sup>Contact us for more information.