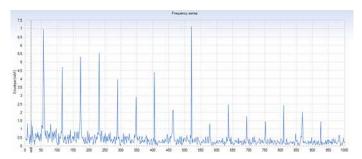
Condition monitoring WiMon100 wireless vibration and temperature sensor

The WiMon100 wireless vibration and temperature sensor paves the way for new and improved strategies for the maintenance of electric motors and other rotating equipment. With this sensor, the manual data collection using handheld monitoring equipment will become a thing of the past, and the range of equipment that might be condition monitored is significantly extended.



Due to the cost efficiency, small size and ease of installation and commissioning of the WiMon100 sensor, on line vibration monitoring can now be realized for all types of rotating machines. The autonomous WiMon100 unit comprises a vibration sensor, a temperature sensor, a long-life battery and communicating using WirelessHARTTM. WiMon100 units form a mesh communication network, if configured for routing, provide a secure, reliable and redundant path from WiMon100 sensor to a gateway and onwards to monitoring and analysis toolkits.



The device has an expected battery lifetime of up to five years (depending on configuration and temperature) and will reduce the cost of maintenance as well as extend the operation time of electric motors and other rotating equipment by enabling predictive maintenance. The sensor is designed for installation in harsh environments, certified for ATEX Zone 0 and is ideal for use in the offshore sector as well as in other industries. The sensor itself is optimized for non-intrusive installation.

The mounting is by means of a threaded hole which follows industry standards and allows for a wide range of mounting methods using commercially available studs or adaptors..

The WiMon 100 sensor is compatible with the WirelessHART™ infrastructure. Management and analysis is performed using the WiMon Data Manager. The WiMon Data Manager handles data acquisition and storage as well as providing a user interface for commissioning, configuration, network operation and machine supervision and analyses

Specifications				
Temperature measurer	ment	,		
Measurement range		-40°C +85°C		
Resolution		0.1°C		
Accuracy		+/- 2°C		
Repeatability		+/- 0.2ºC		
Vibration measuremen	ıt (over	all va	lues)	
Velocity		•		
Amplitude range		0,2- 350mm/s (10Hz)		
Frequency range		10Hz - 1kHz		
Detection type		RMS		
SKF Acceleration Envelo	onina E	.		
	Jping r	·····		
Amplitude range		0,25 - 245m/s ²		
Frequency range Acc.		500Hz - 10kHz		
Detection		Peak to peak		
Data processing				
A/D conversion		16 bit		
Sampling frequency		5,859kS/s		
Sampling interval		0,7s		
Uploaded waveform resolution		2048 samples / 0,7s		
Wireless communicati	on			
Network standard		WirelessHART (HART 7.4)		
Radio standard		IEEE 802.15.4		
Frequency		2.4 GHz, licene free ISM band		
Range (nominal)		>50m @ line-of-sight		
Power		<u>.</u>		<u> </u>
		2 61	ΛΛ lithium th	ionyl oblorido
Battery type		3.6V AA lithium thionyl chloride (LI-SOCI2) bobbin cell		
		(LI-S	JCI2) bobbin	ı celi
Estimated battery lifetime		Up to 5 year battery life,		
		depending on temperature,		
		setti	ngs and usag	e; see below.
Operating temperature (C)	-40° to	-20°	-20° to 0° 0° t	to 40° ii 40° to 70°
Battery life in years	3		4	5 3
		•		
Note I			lt sensor config	
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powerful water jetting)



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Certification(s)				
EX (Hazardous areas)	ATEX Zone 0,			
	Ex ia IIC T4 -40°C/+85°C			
Radio	ETSI			
	EN 300 328 v.1.7.1			
	EN 301 489-1 v.1.9.2			
	EN 301 489-17 v.2.2.1			
Physical				
Weight	0.2 kg			
Case material	Stainless steel/Thermoplastic			
Mounting	1/4 28 UNF tapped hole			
	Preferably stud mounted,			
	mounting torque 5Nm			
Dimensions	100 x 36 mm			

For more information, please contact:

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