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SIEDS

Smart industrial environment digitalization sensor

Application Description

Condition Monitoring

PROFIBUS PROFINET Industrial Ethernet CAN DeviceNet SafetyBUS p AS-i INTERBUS EMV WIRELESS

SIEDS Multi Sensor

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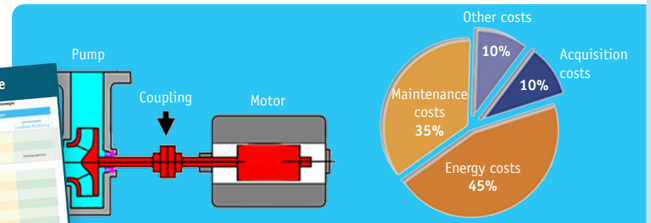
Localization of wear and tear assets

What are typical assets subject to wear and tear in manufacturing companies that must be given attention at certain intervals?

Example: Motor-Pump Combination

Incorrect adjustment of the motor shaft to the pump shaft increases wear.

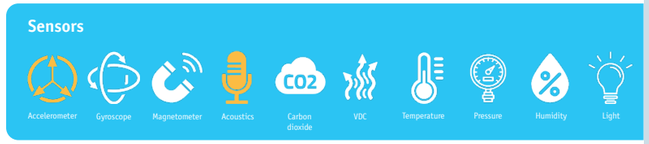


Selection of the appropriate SIEDS parameter

Which physical parameter(s) of the SIEDS can be used to analyze the asset for wear and tear?

Example: Motor-Pump Combination

Incorrect adjustment causes vibrations in the vicinity of the motor-pump combination, which has an acceleration and an acoustic sensor can be recorded.



Assembly of the SIEDS

How do I ideally mount a SIEDS on an asset?

When mounting a SIEDS on an asset, it is particularly important to ensure that a high-quality mounting surface is available for attachment.

The primary goal, especially with an acceleration sensor, is to achieve a maximum usable frequency response for carrying out a vibration measurement. Since the surface condition during assembly influences the transmission properties. In the case of higher frequencies in particular, special attention must be paid to the surface finish, the sensor alignment and the tightening torque during assembly.

Training Phase

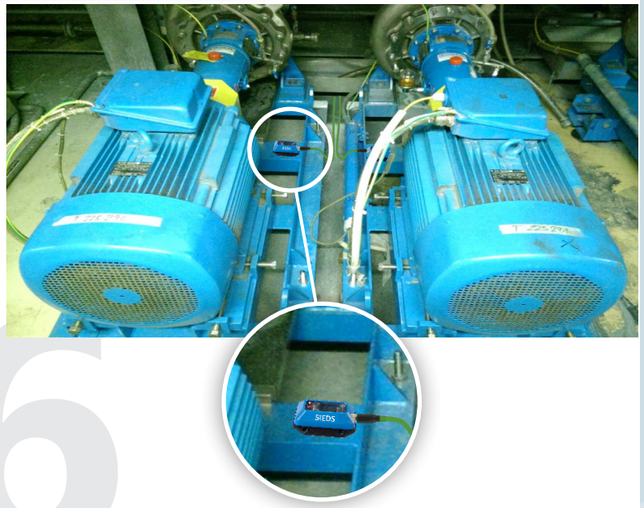
With the self-learning teach mode, the SIEDS acquires all the necessary environmental information via a defined time window, either to provide initial maintenance instructions directly after installation, or to provide the basis for the subsequent threshold value setting. All necessary information and configurations can be conveniently carried out directly via the web interface.

Monitoring Phase

SIEDS can be connected to a condition monitoring software solution.

This makes it possible to centrally monitor all relevant data from assets subject to wear and tear and other network-capable devices (other sensors, switches, frequency converters) and to use them for predictive maintenance.

Application Example



Actual recording of assets subject to wear and their current maintenance specialist strategy

	Assets	Maintenance Strategy		
		Reactive	Cyclic	Permanent Condition Monitoring
Example	*Motors (e.g. compressors*		*inspection*	
	Pumps	*exchange if broken*		
	Transmission (e.g. lifting crane)			*vibration sensor*
	Motors			
	Pumps			
	Gear			
	Compressors			
	Conveyor chains			
	Conveyor belts			
	Conveyor			
	Plain bearings			
	Seals			
	Fieldbus systems/Networks			
	Vents/Filters			
	Power Supply 400/24V			
	UPS Batteries			
	Blower			
	Heaters			
	Hydraulics			

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