# **INGESYS**



### **Acceleration Sensors**







INGESYS<sup>TM</sup> SR is the new family of digital sensors for machine monitoring that integrate advanced diagnostic functions. Communication with the sensors uses Ingeteam's advanced SRX protocol that allows high-speed data capture from multiple sensors with capture time synchronisation.

Within the sensors family, the INGESYS™ SR A accelerometers enable the capture of high frequency raw vibration data for use in INGESYS™ applications, allowing the integration of advanced processing algorithms.

## Digital sensors for machine monitoring



#### Main functionalities

- · Technology: MEMS
- · Measurement: 3 axis (X,Y,Z), +-50g
- · Integrated temperature measurement
- · Cable length: up to 1000 m
- · Rugged digital communication for difficult environments
- · Mechanical features: IP68

#### **Benefits**

- ✓ Integrated 3-axis vibration and temperature measurements
- ✓ High level of electromagnetic noise immunity
- ✓ Connection length for large machines
- ✓ Advanced diagnostic functions

Technical Data		INGESYS
Technology	MEMS	
Communication Protocol	SRX	
	Absolute maximum values	
Acceleration	10,000g (any axis)	
Drop test	1.2m	
Storage temperature	-40°C to 90°C	
	Functional specification	
Measurement	3 axis (X, Y, Z)	
Measuring range	+/- 50g	
Operating temperature	-40°C to +70°C	
Accuracy	5% (over temperature range)	
Cross-sensitivity between axes	1%	
Linearity	0.1%	
Resonant frequency of the device	>20KHz	
Bandwidth (5%)	DC at 4.7KHz	
Bandwidth (-3 dB)	DC to 11KHz	
Noise density	100Hz at 10KHz: 25µg/√Hz	
Noise domain 1/f	<0.1Hz	
Max. connection length	1000m	
	Temperature measurement	
Measuring point	Enclosure	
Measuring range	-40C to +150C	
Accuracy	0.3°C (-20C to +105C)	
	Mechanical construction	
Protective material	Anodised aluminium	
Degree of protection	IP68	
Fixing	Screws	
Weight	<300gr	
Measurement	70 x 60 x 30mm	
Cable outlet	Cable gland	

