



The precision that matters.



Smart sensor
with triaxial
Mems technology.

www.intelligentia.eu

We are the ideal partner for innovative asset maintenance, utilizing cutting-edge technology.

We aim to provide a versatile solution that can be customized and integrated to meet all important application scenarios.

We collaborate with customers to generate synergies and develop new market opportunities with them.

More Intelligentia in your world



Monitor for optimal performance

Proactive management ensures uncompromised efficiency.

Minimize risks by detecting issues.

Targeted maintenance can help you **extend the life of your machinery.**

Record, save and analyze log traces.

The e-Sensor **Black Box** ensures accurate tracking and data analysis.

Intelligentia Smart Sensors srl

Headquarter Via del Pomerio 7, 82100 Benevento (BN) - Italy
Sales & Post-Sales Via Ticino 30/G, 20064 Gorgonzola, (MI) - Italy



T +39 0824 1774728
E info@intelligentia.eu
P.iva 01860490620
intelligentia



Passionate about technology, determined to innovate.

Smart sensors are frequently constructed as closed systems with proprietary interface software and communication protocols, and are supplied as black boxes to the customer or integrator who uses them. We believe in developing an expanded

relationship environment in which we enjoy sharing new market trends with our customers and suppliers as a result of synergistic product creation and continual improvement.

Intelligent solutions for dynamic monitoring.

We create valuable technology

With its powerful algorithms, it can monitor and rapidly indicate any problems that may emerge on the various components (*bearings, pieces, tools, spindle, axis*), saving more significant damage and unscheduled maintenance interventions. *A little investment for a superior tool at your disposal.*

e-Sensor was created to provide all of the functionalities required for precise control of any type of equipment or process in a single unit.



Specifiche tecniche

e-Sensor - Hardware Specs	
No. of axis	3
Frequency range	0-2000 Hz
Dynamic range	110 dB
Measuring range	20 g (10-40 g)
Protection level	IP67
Temperature range	da - 10 a 100 °C
Communication	2 cables RS485

Output Signal (Modbus)	
	Unfiltered acceleration signals
	Acceleration vector peak detection
	RMS Speed
	Peak-to-peak shift
	FFT

e-Interface - Spec.	
2 customizable analog inputs	4-20 mA, 0-20 mA, 0-10 V, PT100
8 inputs/outputs	Custom configuration

CODE FRIENDLY
e-SENSOR it has been built for easy integration with open source and free communication protocols..

Communication Interface
Dyn Rail support for wiring cabinets, Modbus TCP connection to the outside

ADD-ON
FREQUENCY ANALYSIS
FFT on critical frequency bands.

SPINDLE WEAR
Indicator of correct use.

BLACK BOX
Record and save log files.

ADD-ON
RESIDUAL LIFE
For warranty programs.

OUTPUT SIGNAL ANALOG/DIGITAL
CNC integration for custom applications.

COMPATIBILITY WITH SENSORS
Up to 4 additional sensors (Oil, pressure, etc.).

OEM & MTB

END USER

COLLISION DETECTION
Stopping in case of accidental impact and consequent reduction of costs and losses.

UNBALANCE
Detection and evaluation of spindle and tool imbalance.

ADAPTIVE CONTROL
Self-adaptive working parameters based on detected information.

CHATTERING DETECTION
Identifying the "chattering" phenomenon.

INTERFACE MIRRORING
Remote replication of the interface via VNC on your smartphone.

ADD-ON
PREDICTIVE MAINTENANCE
Repair planning based on the actual condition of the components.

MACHINE HEALTH
Constant monitoring of vibration levels.

TEMPERATURE MONITORING

DETECTION BEARING FAILURE

MAINTENANCE

PLANNING

ONLINE MONITORING
Remote monitoring with event logs and graphical analysis.

PRODUCTION EFFICIENCY
Analysis of the real efficiency of production machines.

16 CUSTOMIZABLE TOOLS SCENARIOS
Set threshold parameters for each tool usage scenario and machining type.

