Data Sheet

EWA condition monitoring sensor

For EWA sensor model E1

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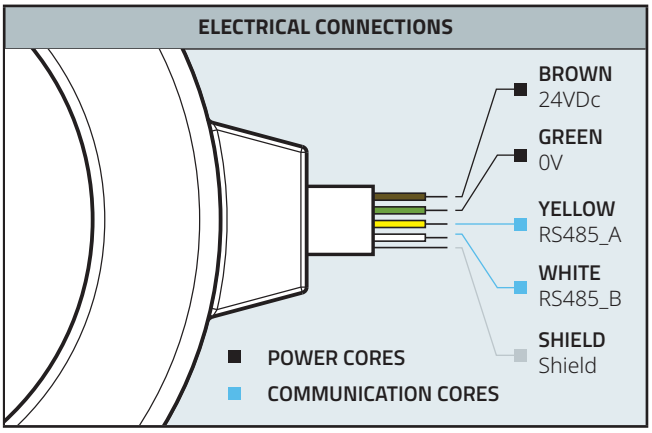
Introduction

The sensor is for condition monitoring and health assessment of rotating machinery.

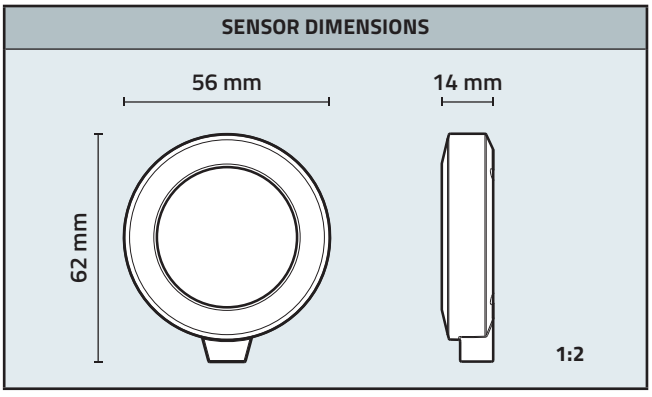
The sensor has all processing and analytics inside the sensor, which work totally on-the-edge.

Electrical Connection



NB. The sensor shield must be connected to the system Common.

Sensor Dimensions



Technical Data

Ordering numbers	
E1.00.12.10	EWA sensor for pumps, motors and spur gears, dry- and submerged installations
Environmental specification	
Temperature, skin	-40 to +90 °C
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Environment	Dirt repellent, Chemical resistant
Sealing	IP68
Compliance	CE, IEC, FCC
Electrical specification	
Voltage supply	12 - 24 VDC
Power consumption	60 mA
Transceiver unit load	1/8 unit load
Microcontroller	32-bit ARM Cortex-M7 core
Sensor signals	
Sensor types	Vibration, magnetic field, temperature (NTC)
Vibration range	0 – 200 mm/s RMS
Magnetic field range	0 – 2.000 µT
Temperature range	-40 to 110 °C
Dynamic frequency range	0 – 16 kHz (vibration and magnetic field)
Measurement type	3D (x-, y- z-dimension, vibration and magnetic field)
Mechanical Specification	
Size	Ø56 mm
Weight	170 g
Casing material	Stainless steel
Cable length	12m
Mounting	Non-invasive, with use of adhesive (Loctite 3463 or similar)
Interface Specification	
Fieldbus interface	Modbus RS-485 RTU
Communication speed	2.4 to 115.2 kbaud
Transfer rate	1 sec
Cable type	4 conductors, shielded
Cable termination	De-insulated cable ends
Output parameters	
Machine output parameters	RPM vibration, RPM magnetic, RPM slip, Rotation direction, Operation time, No. start/stops, Magnetic field level, Vibration Level RMS, Total runtime, Unbalance, Cavitation, Skin temperature, Bearing fault, Spur gear, False Brinelling ratio, Machine health