

Technical data

Standard performance Smart Sensors for motors

Specifications	Standard performance sensor
Temperature measurement (machine skin temperature)	
Measurement range	-40° C to +85° C
Resolution	0.1° C
Accuracy	+/-0.5° C
Vibration measurement	
Acceleration, low frequency (x, y, z direction)	
Amplitude range	0.03 - 157 m/s ² (16g)
Frequency bandwidth	0.1 Hz – 1.5 kHz
Acceleration, high frequency (z direction)	
Amplitude range	N/A
Frequency bandwidth	N/A
Magnetic field measurement	
Magnetic field (x, y, z direction)	
Amplitude range	1 – 1600 µT
Frequency bandwidth	0.1 – 250 Hz
Ultrasonic sound measurement	
Microphone	
Amplitude range	0.6 mN/m ² – 20 N/m ²
Frequency bandwidth	100 Hz – 80 kHz
Wireless communication	
Communication standards	Bluetooth® 5.0, Bluetooth® Low Energy
Radio standard	IEEE 802.15.4
Frequency	2.4 GHz, license free ISM band
Range (nominal)	>200 m @ line of sight
Security	
Encryption	128-bit AES encryption
Authentication	IEC 62351 (role-based access control)
Power	
Battery type (not replaceable)	AA-type
Battery design life	Up to 5 years operation under standard conditions
Environmental	
Temperature	Operation: -40° C to +85° C
	Storage: <30° C
IP class	IP66/67 (dust-tight and resistant to powerful water jetting and submersion)
Chemical tolerance	See chemical tolerance sheet for PBT (Polybutylene terephthalate)
Certifications	
Hazardous areas	Ex ia I Ma -40 oC ≤ Tamb ≤ +85° C (Mining)
	Ex ia IIC T4 Ga -40 oC ≤ Tamb ≤ +85 oC (Gas)
	Ex ia IIIC T157 Da -40 oC ≤ Tamb ≤ +85 oC (Dust)
	CI I, Div 1, Gr A, B, C and D T4
	CI II, Div 1, Gr E, F and G T4
Radio	CI III, Div 1
	EN 300 328 v.2.1.1
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FCC/IC	
EMC	
Immunity	EN/IEC 61000-6-2
Emission	EN/IEC 61000-6-3
Physical	
Dimensions (W x D x H)	75 mm x 58 mm x 33 mm
Weight	130 g
Case material	Stainless steel/reinforced PBT
Mounting	On equipment housing or frame. Please consult installation manuals. M6 or UNF ¼" / 28 screw