R&D Attitude Heading Reference System CAN Sensor

Delivers real-time motion and orientation data, including acceleration, rotation, magnetic field, quaternion and Euler angles (pitch, roll, yaw).

Configurable plugin in ODOS dashboard to be added to any ODOS data logger unit.. Ideal for motion analysis, vibration monitoring, shock detection, and navigation systems. Calibration during installation is required for optimal performance.

SPECIFICATIONS

3 Axis Accelerometers	Range	+/-8 g
	Resolution	0.004 g
	Accuracy (Dynamic *1)	0.036 g
	Max Update Rate	250 Hz
3 Axis Gyro	Range	+/- 2000 °/s
	Resolution	0.06 °/s
	Accuracy (Dynamic *1)	3.1 °/s
	Max Update Rate	250 Hz
3 Axis Magnetometer	Range	+/- 1300 µT
	Resolution	0.3 µT
	Accuracy (Dynamic *1)	1.4 µT
	Max Update Rate	100 Hz
Euler Angles	Range (pitch)	+/- 90 °
	Range (roll)	+/- 180 °
	Range (yaw/bearing)	0 to 360 °
	Resolution	0.1 °
	Accuracy (static *2)	3.0 °
	Accuracy (dynamic *2)	4.5 °
	Max Update Rate	250 Hz
Quaternion *3	Output specifications are the same as the Euler output	

Environment	Operating temperature	-40 to + 80 °C
	IP-rating	IP 65
Mechanical Shock (Max values)	Duration < 200µs	10000 g
	Duration < 1ms	2000 g
	Free Fall Distance	1.8 m
Weight		25 grams
Dimensions		H 22 x W 40 x L 45 mm
CAN *4	Baud rates	1000, 500, 250 kbps
	Address Range	1 (0x01) to 2042 (0x7FA) decimal (Hex)
Power	Voltage Range	9 – 16 V
	Current (sleep)	110 (10 mA) @ 12 V
Input pins		2-28 V

*1 Dynamic accuracy is when the unit is in motion and the calibration accuracy is high.*2 Static accuracy is when the unit is stationary and the calibration accuracy is high.*3 The quaternion output is i, j, k and the real component. *4 The default settings are 1000kbps and start address 768 (0x300), the unit has no CAN termination.