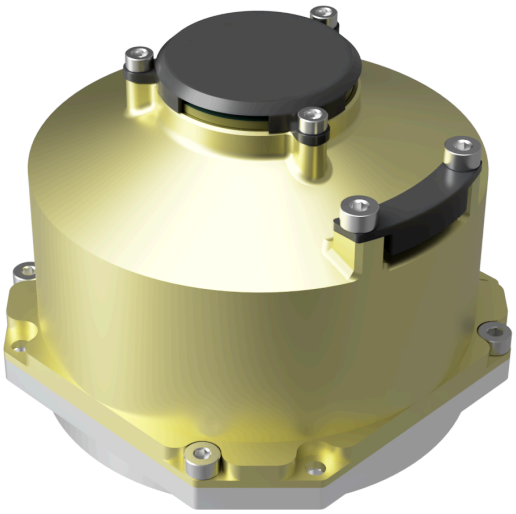
TAKEME2SPACE

SpaceWheel30

Technical Specifications



Description:

Reaction Wheels serve as a vital part of the satellite's Attitude Determination and Control System (ADCS), enabling dependable and high-precision orientation management essential for mission success. Engineered for robust in-orbit performance, the RW-Medium model delivers a nominal momentum of 30 mNms and maximum torque of 83.4 mNm, supporting fine control accuracy of ±1 RPM at speeds above 100 RPM.

Technical Specifications:

Category	Parameter	RW-Medium
Performance	Momentum	30.4 mNms
	Max. Continuous Torque	83.4 mNm (motor rating)
	Control accuracy	±1 RPM @ >100 RPM
Interface	Control mode	Speed or Torque
	Command/Telemetry	RS-485, CAN
	Connector type	16 Pin Harwin connector
Mechanical	Dimensions	55 x 55 x 40mm
	Mass	280 g
	Balancing	Residual unbalance <0.1 g.mm after balancing to G0.4 grade
Electrical	Supply voltage	24V (nominal)
	Power draw at max RPM	12 W
	Maximum RPM	6000
	Power at zero momentum	0 W
Environment	Thermal	-40°C to +100°C (operating)
	Vibration & shock	Tested for 14 gRMS random, 70g shock in all axes

Testing & Compliance with Satellite	T-Vac	2 Cycles with temperature range of +60℃ to -25℃
	Vibration	Random vibration acceptance test levels 20 - 2000 Hz at 4.47grms for 60 seconds
	Shock	100 Hz at 30g 1000 Hz at 1500g 5000 Hz at 1500g

Questions? Queries? Contact us at info@tm2.space