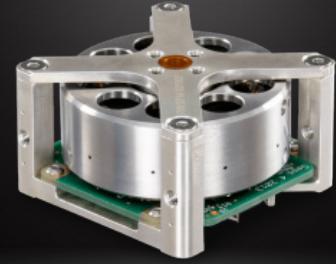


REACTION WHEEL

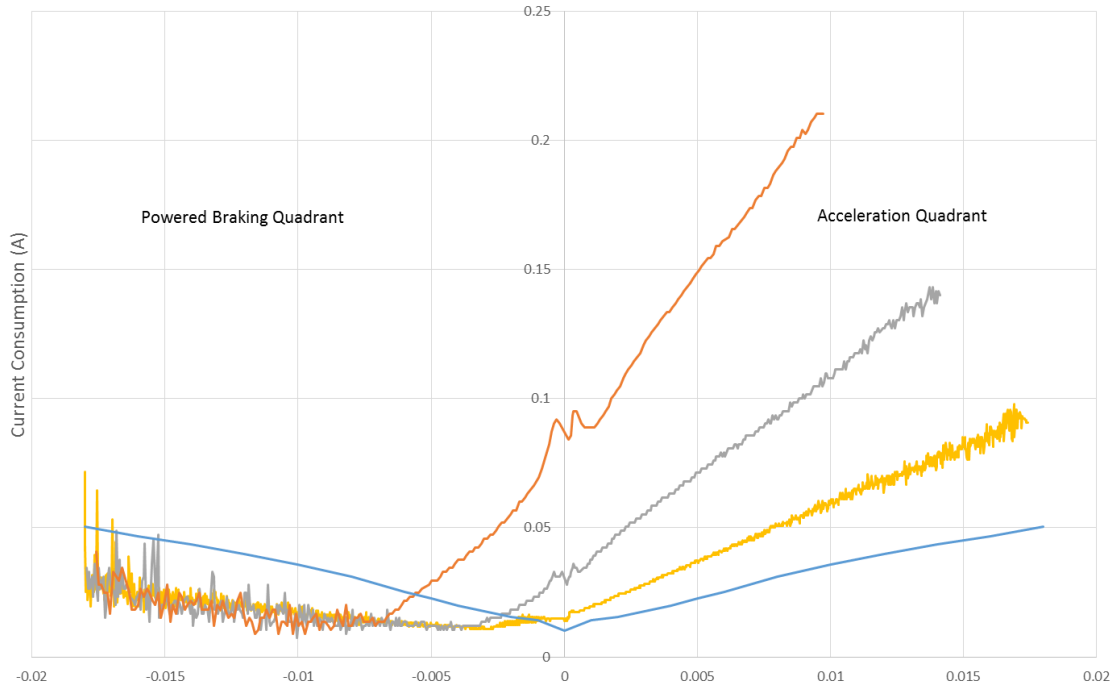
10 mNms RW-0.01 Data Sheet

Version 2, 7 April 2022



MOMENTUM	Nominal: 0.01 Nms Peak: 0.018 Nms (at 5 V supply)
TORQUE	±1 mNm at 0.01 Nms (at 5 V supply)
CONTROL MODE	Speed or torque, with built-in control CPU
COMMAND/TELEMETRY	UART or I ² C/SMBus
MECHANICAL	Dimensions: 50 mm x 50 mm x 30 mm Mass: 120 g
SUPPLY VOLTAGE	Nominal: 3.4 V to 6.0 V, Maximum: 8 V
SUPPLY POWER (28 V IN VACCUM)	1.05 W @ 0.01 Nms, +1 mNm 0.25 W @ 0.018 Nms, steady state 0.11 W @ 0.005 Nms, steady state
ENVIRONMENT	Thermal: -40°C to +70°C (operating) Vibration: >12 gRMS Radiation: >20 krad dose
RELIABILITY	Advanced hybrid ball bearings Redundant motor windings Radiation lot-screened parts (optional)
HERITAGE	10 Units total on-orbit on 4 satellites, first launched June 2014 Common design to RW-0.03, with >10 year on-orbit
PRICE	US \$20,000 each, +US \$2,000 for radiation lot-screened parts

Input Current at 5 V in Vacuum for Various Torques



Torque Box at 5 V in Vacuum

