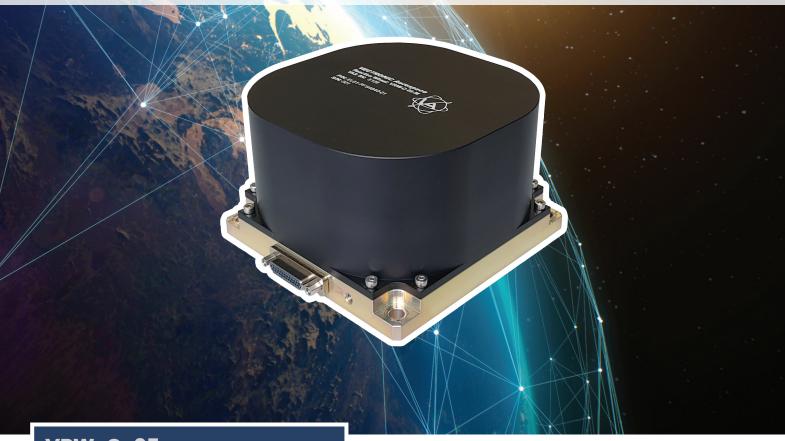


VRW-C-05 REACTION WHEEL



VRW-C-05 REACTION WHEEL

- PI-loop running on a 32-bit microprocessor applying a low-noise, high-efficiency four-quadrant PWM.
- Standard asynchronous SCI on RS422/ RS485 and CAN Interface
- Full-duplex configuration or halfduplex bus architecture
- Baud rate adjustable up to 1Mbaud
- Modular design that allows easy customization

HIGH MOMENTUM YET LIGHT WEIGHT FROM VECTRONIC AEROSPACE

The VRW reaction wheel series comprises more than 100 years of in-orbit flight experience.

The VRW-C-05 is a highly precise and customizable wheel, utilizing a model-supported Pl-loop and offering speed and torque control. Simultaneously, thermal and over-voltage protection circuits ensure safety. It delivers a nominal angular momentum of 0.6 Nms. With a nominal in-orbit lifetime of 45,000+ hours, this is a dependable solution for your mission-critical needs.

TECHNICAL DATA

Dimensions: 96 mm x 96 mm x 60 mm

Mass: 1.3 kg

Moment of Inertia (rotor): 9.55*10⁻⁴ kgm²

Power consumption:

@steady state, no speed <1.3 W @steady state, max. speed <9.0 W @max. speed, @50mNm <65 W

PERFORMANCE

Max. speed: ± 6000 rpm

Angular momentum: 0.6 Nms

Max. torque: ± 20/50 mNm

Speed control loop accuracy (20): 0.1 rpm

Unbalance static/dynamic: < 3 gmm / 100 gmm²