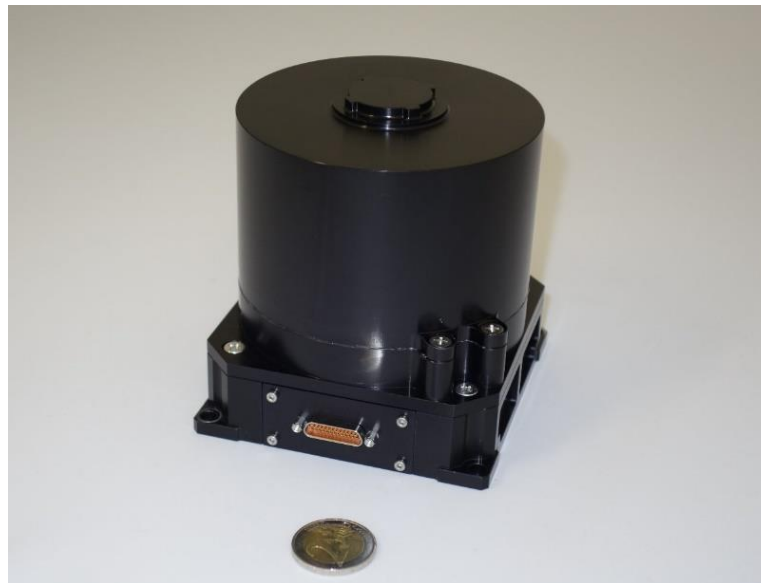


## REACTION WHEEL ASSEMBLY RWA05

The RWA05 by Berlin Space Technologies is a reaction wheel assembly for small satellites with integrated fibre optical gyro. The integrated gyro enables precise speed, angular rate and position control loops as they have been pioneered on Berlin satellites since 1994. The RWA05 comes in two versions: a high-torque and a low-torque variant.



Characteristics	RWA05	RWA05-24
Momentum	0.5Nms	
Velocity	Min +/- 500 rpm – Max +/- 5000 rpm +/-2 rpm Accuracy	
Net Torque	16.0mNm @ 500 rpm 14.2mNm @ 5000 rpm	8.6mNm @ 500 rpm 6.8mNm @ 5000 rpm
Power Supply	5V Electronics 17..32V Motor	5V Electronics 7..24V Motor
Power Consumption	0.5W @ 5V 0.07A @ 3000RPM 0.8A @ max. torque	0.5W @ 5V 0.15A @ 3000RPM 0.9A @ max. torque
Command Interface	UART RS422	
Dimensions	105.0 x 106.6 x 109.5 mm <sup>3</sup>	
Temperature	-30°C .. +50°C Storage -20°C .. +40°C Operation	
Design Life	5 years LEO	
Space Heritage	Yes	
Radiation Test (Co60)	30krad	
Mass [kg]	1.70 (RW + WDE + Gyro), 1.55 (RW + WDE)	