



RW210

Reaction wheel

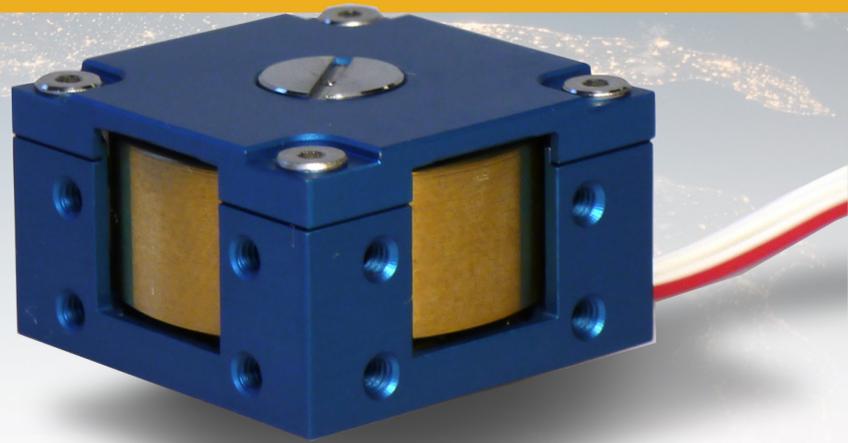
The RW210 series reaction wheels are low mass, low power reaction control wheels, which allow CubeSats and other pico- or nano-satellites to control their attitude.

These reaction wheels are specifically designed for 1 to 3U CubeSat platforms, and they are also used in the iADCS-series of attitude determination and control systems as well as the iACS series of attitude control systems.

The RW210 series of reaction wheels feature an internal fire-and-forget controller, which frees up the host processor's workload.

The standard configuration features up to 0.1 mN.m torque, and an I²C interface. Different interfaces are available on request.

The RW210 is available with either 1.5, 3.0 or 6.0 mN.m.s of momentum storage in both directions of rotation.



Flight heritage since 2017

HIGHLIGHTS

- Total momentum storage:
+/- 1.5, +/- 3.0 or +/- 6.0 mN.m.s
- Maximum torque: 0.1 mN.m
- Fire-and-forget speed and torque control.
- I²C-compatible interface
- Plug-and-play design
- Primary components radiation tolerant to over 36 krad (Si)

- Low mass: 21 / 32 / 48 g
- Low power: < 800 mW peak
- Compact: 25 x 25 x 15 mm





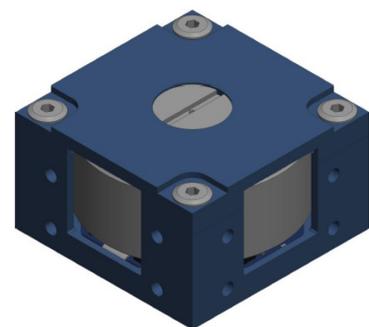
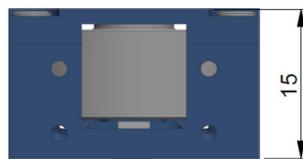
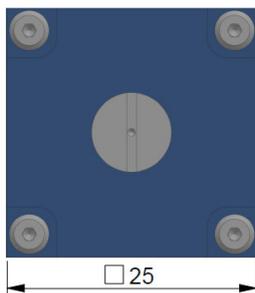
SPECIFICATIONS

Performance				
Total momentum storage	+/- 1.5, +/- 3.0, +/- 6.0			mN.m.s
Maximum torque	+/- 0.1			mN.m
Maximum rotation rate	10000 / 15000 / 15000			rpm
Control accuracy	+/- 0.5			rpm
Dimensions				
Outer dimensions	25 x 25 x 15			mm
Mass	21 / 32 / 48			g
Environmental				
Operating temperature	-20 - +60			°C
Radiation tolerance	> 36			krad (Si)
Electrical specifications				
	Min.	Typ.	Max.	
Supply voltage	3.25	3.3	3.5	V
Bus logic level voltage	3.3-5.1			V
Power consumption¹				
	Min.	Typ.	Max.	
Idle	10	65	75	mW
Nominal ²	-	400	630	mW
Peak	-	-	800	mW

¹ Reference values for RW210.15 model

² Rotating at a constant 10000 RPM

MECHANICAL CHARACTERISTICS (IN MM)



For pricing, delivery, configuration and ordering information please contact us at sales@hyperion.space or call us at +31(0)15-5160905

