



## RW400

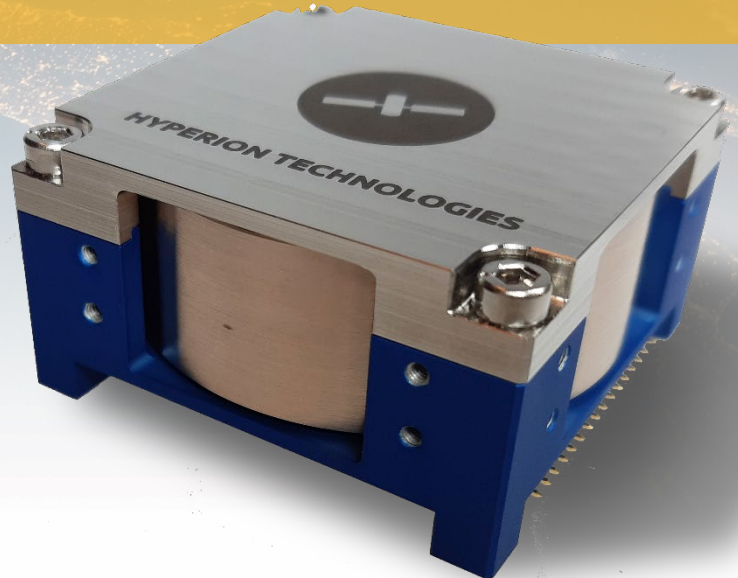
### Reaction wheel

The RW400 series reaction wheel is a low mass, low power reaction control wheel, which allows CubeSats and other small platforms to control their attitude. The wheel was specifically designed for 6 - 12U CubeSat platforms, and is also used in the iADCS400-series of attitude determination and control systems.

It features an internal fire-and-forget controller, which frees up the host processor's workload.

The RW400 is available with either 15, 30 or 60 mN.m.s of angular momentum storage in both directions of rotation.

All versions feature in excess of 8 mN.m of torque and both I<sup>2</sup>C compliant interface as well as a bidirectional RS422 interface. Different interfaces are available on request.



### HIGHLIGHTS

- Total momentum storage: +/-15 mN.m.s, +/-30 mN.m.s, +/-50 mN.m.s
- Maximum torque: > 12 mN.m (braking)
- Fire-and-forget control
- I<sup>2</sup>C-compatible interface
- RS422/RS485 interface
- CAN interface available on request
- Primary components radiation tolerant at least up to 36 krad
- Plug-and-play design
- Low mass: 155 / 210 / 375 g
- Low power: < 1900 mW @ 55 mN.m.s
- Compact: 50 x 50 x 27 mm





## SPECIFICATIONS

### Performance

Total momentum storage	+/- 15, +/- 30, +/- 50	mN.m.s
Maximum torque	+/- 8	mN.m
Maximum rotation speed	5000	rpm
Control accuracy	+/- 1	% of target rpm

### Dimensions

Outer Dimensions	50 x 50 x 27	mm
Mass	155 / 210 / 375	g

### Environmental

Operating temperature	- 40 to + 60	°C
Radiation tolerance	> 36	krad (Si)

### Electrical specifications

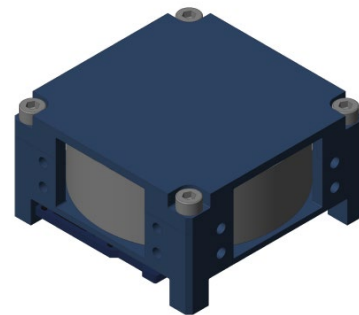
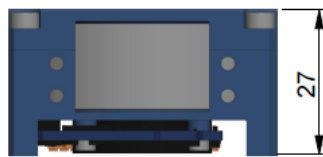
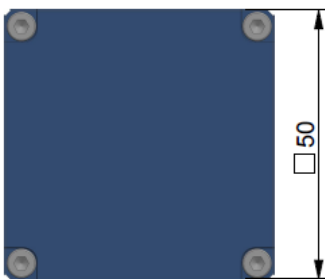
	Min.	Typ.	Max.	
Supply voltage	4.5	5.0	5.25	V
Logic supply voltage	2.3	3.3	5.1	V
Bus logic level voltage	3.3-5.1			V

### Power consumption

	Min.	Typ.	Max.	
Idle	-	-	75 <sup>1</sup>	mW
Nominal	-	1000 <sup>1</sup>	-	mW
Peak	-	1900 <sup>1</sup>	15000 <sup>1</sup>	mW

<sup>1</sup> Can be tailored

## MECHANICAL CHARACTERISTICS (IN MM)



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

