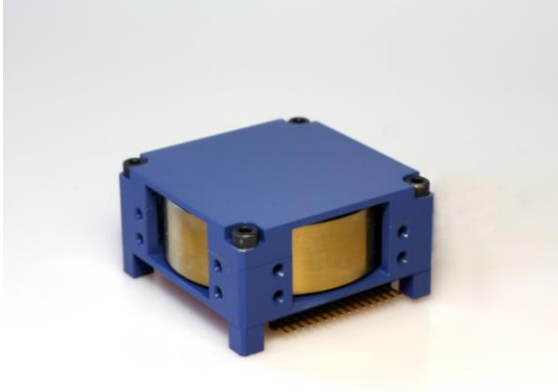




HYPERION TECHNOLOGIES

RW400 Series Reaction Wheel



DESCRIPTION

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 2 mN.m of torque (optional up to 5 mN.m) and an I²C compliant interface. Different interfaces are available on request.

HIGHLIGHTS

- Total momentum storage:
+/-15 mN.m.s, +/-30 mN.m.s, +/-60 mN.m.s
 - Maximum torque: 2 mN.m
(up to 5 mN.m available as an option)
 - Fire-and-forget control
 - I²C-compatible interface
 - RS422/RS485 and/or CAN interfaces
available on request
 - Primary components radiation tolerant at
least up to 45 krad
 - Plug-and-play ready design
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- Low mass: 155 / 210 / 340 g
 - Low power: < 2500 mW peak
 - Small volume: 50 x 50 x 27.5 mm



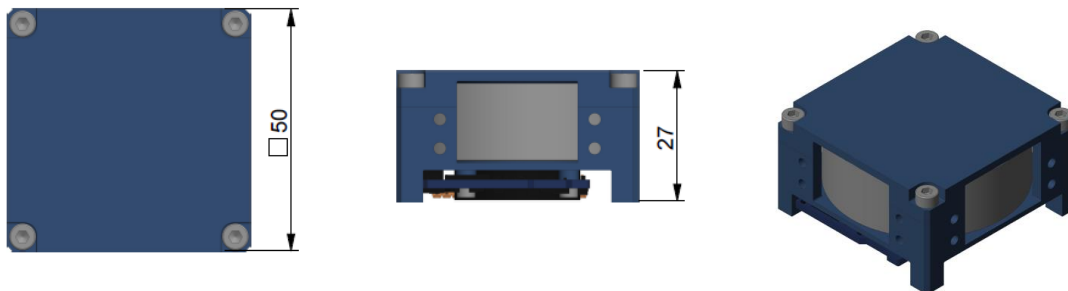
SPECIFICATIONS

Performance				
Total momentum storage	+/- 15, +/- 30, +/- 60			mN.m.s
Maximum torque	+/- 2			mN.m
Maximum rotation rate	5000			rpm
Control accuracy	+/- 0.5			rpm
Dimensions				
Outer Dimensions	50 x 50 x 27.5			mm
Mass	155 / 210 / 340			g
Environmental				
Operating temperature	- 40 to + 60 ¹			°C
Electrical specifications				
	Min.	Typ.	Max.	
Supply voltage	4.9	5.0	5.1	V
Logic supply voltage	2.7		5.1	V
Bus logic level voltage	1.7-5.1			V
Power consumption				
	Min.	Typ.	Max.	
Idle	-	-	75 ¹	mW
Nominal ²	-	650 ¹	-	mW
Peak	-	-	2500 ¹	mW

¹To be confirmed

²Depends on use case

MECHANICAL CHARACTERISTICS



RW400 outer dimensions [mm]

For pricing, delivery, configuration and ordering information please contact Hyperion Technologies B.V. at info@hyperiontechnologies.nl, or visit Hyperion Technologies' website at www.hyperiontechnologies.nl.