



**Micro CMG
for Small
Satellites**

**μ CMG is an ACS actuator for small satellites
with the task of fast attitude change**

- 14 Nm @ 5820 rpm flywheel speed
- Integrated Wheel Drive Electronics (WDE)
- PI controller for speed and acceleration
- Two different standard data interfaces available (CAN / RS485)
- Low level emitted vibrations, due to the mechanical design and the high level of alignments and balancing
- low energy consumption

Parameters**Data [Remark]**

Angular momentum	8 Nms [@ nominal rotation speed]
Nominal rotation speed	5820 rpm [flywheel]
Gimbal rate	1.75 rad/s
Max. output torque	14 Nm [gyroscopic torque]
Mechanical interface	
Mass	≤ 8 kg
Dimension	188 mm x 188 mm x 240 mm
Electrical interface	
Supply voltage	(28 ⁺¹⁰ ₋₆) V
Power consumption	
Max.	≤ 40 W
Steady state (no gimbal activities)	≤ 20 W
Standby	≤ 4 W
Data interface	CAN, RS485
Operation temperature range	-20°C ... +50°C
Design lifetime	
In-orbit	11 years
On-ground	5 years [including 1,000 h operation]