

RW180

Reaction Wheels 180 for Nanosatellites



Designed for demanding missions, providing an 8 years lifetime duration. Fully characterized and qualified according to the European Cooperation for Space Standardization (ECSS).



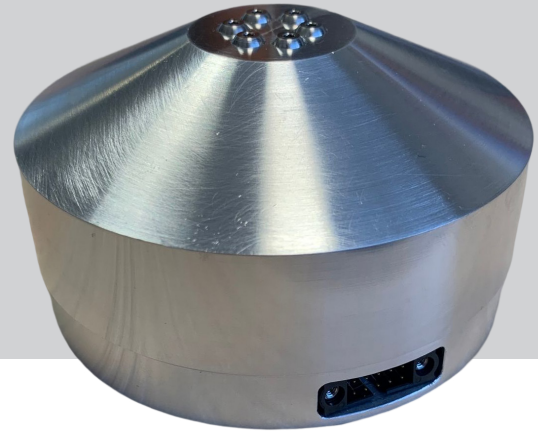
Detumbling



Attitude control



Torque or angular rate control



Main benefits

- ✓ Plug & play concept
- ✓ Embedded electronic
- ✓ Robust technology (stainless steel bearings)
- ✓ Compact design & accommodation
- ✓ Embedded and protected electronics

Key features

Torque

20 mNm mean

Kinetic moment

180 mN.ms

Accuracy

Down to 2 rpm

Supply Voltage

14 V [10 V; 18 V]

Data Interface

RS 485 full duplex

Mechanical interface

Size:
1 RW = Ø 82 x 44.8mm, ie

Mass :
1 RW = < 550g
(electronic and radiation protection included)

Life time

More than 100,000 zero crossing tests
8 years of operation

Thermal Qualification

-30°C/ +50 °C

Mechanical Qualification environment

Random: 20.8 grms
Shock: 1,000 g/2,000 Hz

Radiation

<20 Krad at electronic board level

Protocol

NSP communication Protocol

Acceptance Test

μvib | Vibration |
Thermal cycling | Performance

REACTION WHEELS 180

SmallSat

