

**ADEO**
DEORBIT MODULE

Let's deorbit your spacecraft together!



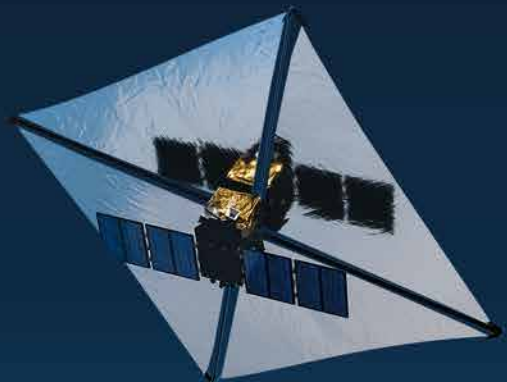
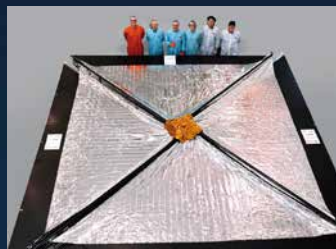
Why using a deorbit sail?

Stay compliant with the 5-year deorbit rule using our commercial, flight-proven ADEO dragsail. It is compact, lightweight, cost efficient, easy to integrate, works without any propellant and can be chosen as primary or secondary deorbit solution:

ADEO as baseline: Because no launch is no option!

ADEO as risk mitigation backup: Be fail-safe through redundancy!

Optional add-on upon request: In case of a satellite failure, ADEO can autonomously deploy to safely deorbit your spacecraft - helping you to avoid regulatory penalties.



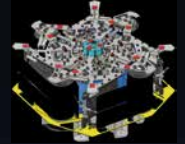
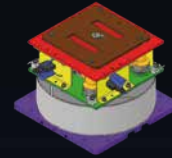
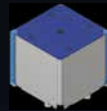
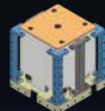
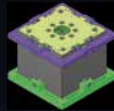
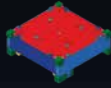
Interested in ADEO?

Contact us:

HPS GmbH
Hofmannstr. 25-27
81379 Munich, Germany

+49 89 45 20 576-0
@ adeo@hps-gmbh.com

The ADEO Product Family



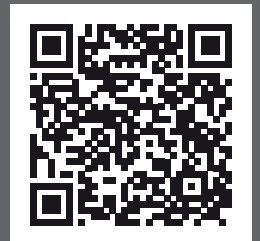
	ADEO-P(ico)	ADEO-C(ube)	ADEO-N(x)	ADEO-N(ano)	ADEO-M(edium)	ADEO-L(arge)
S/C mass	1-20 kg	5-50 kg	1-30 kg	20-250 kg	100-700 kg	500-1,500 kg
ADEO mass	0.42 kg	0.80 kg	0.77 kg	0.80 kg	4.50 kg	9.50 kg
ADEO size	10 x 10 x 3.9 cm ³	9.4 x 9.4 x 7.2 cm ³	10 x 10 x 9.8 cm ³	10 x 10 x 10 cm ³	21 x 21 x 17.4 cm ³	40.6 x 40.6 x 26 cm ³
Sail area	1.7 m ²	4.0 m ²	2.0 m ²	5.0 m ²	15.0 m ²	25.0 m ²
Mechanism	Spring-based	Spring-based	Spring-based	Spring-based	Spring-based	Motor-based
Activation	Pyro cutter	Pyro cutter	Pyro cutter	Pyro cutter	Pyro cutter	Release nut
Mechanical interface	4 x M4 through holes	Customizable	30 x M2.5 thread	4 x M5 thread	8 x M6 through holes	8 x 7.0 mm through holes
Electrical interface	2 wires (free ends)	2 x 2 wires (free ends)	2 wires (free ends)	2 wires (free ends)	2 x 2 wires (free ends)	3 Connectors D-Sub HD15, RS422
Electrical power	12V@1A 10 msec	>1V@4.25A 10 msec	12V@1A 10 msec	12V@1A 10 msec	>1V@4.25A 10 msec	24-38 VDC

Note: The ADEO product family is qualified for flight, some units already achieved TRL 9, and has been undergoing continuous improvement for over 10 years through numerous technology development activities. These efforts have been co-funded by ESA, DLR, the State of Bavaria, and significant internal investments, in collaboration with various companies and research institutes, including DLR and Fraunhofer.

Need more information about ADEO?

Scan the QR code or check out our website and online configurator:

<https://www.hps-gmbh.com/portfolio/adeo-deployable-dragsails/>



Has ADEO been flown and verified? YES, multiple times!

