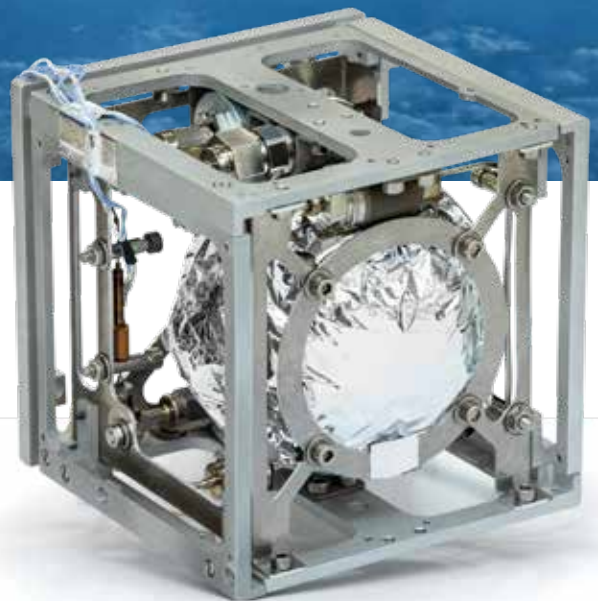


On-board propellant management system for electric propulsion



- ✓ Compact design
- ✓ Compliant with various propellants
- ✓ Cost efficiency
- ✓ High level of tightness
- ✓ Short lead time
- ✓ Low power consumption





Customized solutions for on-board electric propulsion management

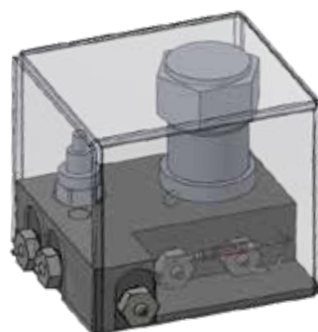
Based on its cutting-edge technology **multi-function valve**, Air Liquide has developed a Flow Control Unit (FCU) and a Propellant Management Assembly (PMA) for a **wide range of satellites, such as cubesat, small and large satellites.**

Our solution and services

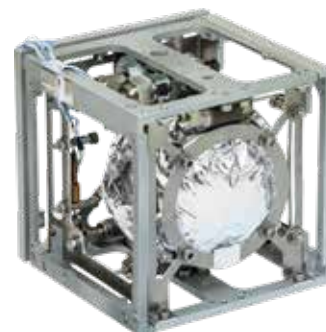
By leveraging Air Liquide's expertise in gas management and equipment manufacturing, our team offers customized solutions covering a wide range of components and systems for the management of propellants for electric propulsion.

Air Liquide masters the entire supply chain of the propellant, **from production (xenon, krypton) to delivery to the point-of-use**, and manufactures **filling equipment** (xenon loading cart). We offer **packaged solutions such as filling services** including gases needs.

Flow control unit



Propellant management assembly



Our multi-function valve

Quantity of xenon to be loaded

Air Liquide's multi-function valve is a thermosthrottle valve that features 2 functions:

- Flow rate regulation
- Pressure regulation



Technical characteristics

Maximum expected operating pressure	200 up to 300 bar
Fluid	Argon, krypton, xenon
Flow range	0.1-20 mg/s +/-1%
Internal / external leakage	10-7 mbar L/S GHe
Response time	20s
Electrical consumption	3W maximum
Weight	10g

Contacts

Air Liquide
Advanced Technologies

2, rue de Clémencière
BP 15 – 38360 Sassenage, France
Phone: +33 4 76 43 62 27
E-mail: gcom.alat@airliquide.com
www.advancedtech.airliquide.com

www.airliquide.com



A world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 66,000 employees and serves more than 3.6 million customers and patients.