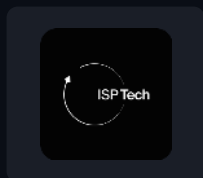


NEWSPACE MARKET · COMPANY PROFILE



ISPTech

Germany · isptech.space

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as of 20 August 2026



ISPTech

ISPTech (InSpacePropulsion Technologies GmbH) is a German deep-tech company specializing in green in-space propulsion systems for the NewSpace age. Founded by propulsion veterans from the German Aerospace Center (DLR), the company leverages over 10 years of R&D and 40 years of combined experience to deliver robust, cost-effective, and quickly available propulsion solutions for satellites ranging from CubeSats to large spacecraft. The company flagship technology, HyNOx, uses nitrous oxide and ethane as a self-pressurizing bipropellant combination, eliminating the need for external pressurization and enabling high propellant storage densities and specific impulses of up to 300 seconds in vacuum. The HyNOx thruster family spans thrust classes from 0.5 N to 400 N, covering missions from small CubeSats to large operational satellites. ISPTech also develops HIP_11, an advanced high-performance propellant combining hydrogen peroxide and ionic liquid fuel. HIP_11 offers specific impulses up to 310 seconds in vacuum and storage densities competitive with conventional hypergolics, making it suitable for performance-driven large spacecraft. Headquartered in Ludwigsburg, Germany, ISPTech serves commercial NewSpace customers worldwide with flight-ready thrusters, complete propulsion modules, and custom propulsion system integration. The company products are validated through thousands of test firings and are qualified for customer projects.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

SERVICES

Services

CAD Design and Feeding System Layout

ISPTech provides CAD design services and develops layouts for propellant feeding systems.

Propulsion system integration and experimental characterisation

ISPTech integrates propulsion systems and performs experimental characterization to validate their performance.

Qualification according to SpaceX Falcon 9 Payload User Guide

ISPTech qualifies propulsion systems according to the SpaceX Falcon 9 Payload User Guide for rideshare missions.

Thruster acceptance testing and derivation of performance models

ISPTech performs acceptance testing for thrusters and develops performance models based on the test results.

Product catalogue



ISPTECH

HIP_11 Propulsion System

Advanced green hypergolic H2O2 + ionic liquid multi-mode propulsion, up to 310 s Isp, 20-200 N.

Propellant	H2O2 (hydrogen peroxide) + ionic liquid fuel
Specific impulse (vacuum)	Up to 310 s
Propellant storage density (H2O2)	Up to 1,440 kg/m3
Propellant storage density (fuel)	Up to 1,100 kg/m3
Thrust variants	20 N and 200 N
Operational modes	Chemical, electrical, monopropellant
Propellant type	Green hypergolic

price on request



ISPTECH

HyNOx 4U CubeSat Propulsion Module

The HyNOx 4U CubeSat Propulsion Module is an integrated propulsion system for CubeSats, featuring a HyNOx-1 thruster and cold/warm gas thrusters, designed for significant deltaV an

Included hardware	1x HyNOx-1 (0.5-2 N, Isp > 260 s)
Included hardware	4x Cold / Warm Gas Thrusters
Status	Available now
Capabilitites	> 4,000 Ns impulse (for standard length)
Capabilitites	0.5-2 N thrust for rapid orbit changes
Capabilitites	Roll, pitch and yaw control
Impulse class	CubeSat Propulsion Systems up to 4,300 Ns

price on request



ISPTech

HyNOx Propulsion Systems

A customizable propulsion system family built around ISPTech's HyNOx thrusters, tanks and a proprietary control unit, tailored to individual spacecraft missions.

Included hardware	HyNOx thrusters, Propellant tanks, Feed system with sensors, Pressure relief components, F
Status	Demonstrator under testing; Customer projects ongoing
Capabilities	Thruster acceptance testing and derivation of performance models; Propulsion system integr
Impulse class	CubeSat Propulsion Systems up to 5,000 Ns; Customized Propulsion Systems starting from 5,0
Thrust classes	HyNOx-200 Thruster (50-400 N); HyNOx-22 Thruster (11-44 N); HyNOx-5 Thruster (2.5-10 N); H
Performance	up to 290 s for hot gas; up to 60 s for cold gas
Temperature range	Thruster operatable for saturated fluid temperatures: -29°C to +32°C; System survivability

price on request

Contact ISPTech

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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