

Specification January 2026

Category	Technical Parameter	Description / Unit of Measure
1. General Characteristics	Model / Designation	NEXUS-5
	Purpose	Medium-Range Surveillance & Scientific Aerostat
	Construction Type	The internal pressure maintains the envelope's rigidity
2. Geometric Dimensions	length	4.5 X 4.5 X 3.5 m
	Helium Volume	App 37 m3
	Stabilisation	Polyester mesh (stabilisation sail)
3. Masses and Payload	Gross lift	App37 kg
	Empty System Weight	App 11 kg
	Maximum Payload Capacity	5 kg
4. Operational Performance	Max Operating Altitude	100 – 150 m
	Max Wind Speed Limit	30 km/h
	Operating Temp. Range	-10 to 60 °C
	Daily Helium Leakage	Up to 1% per day on total volume
5. Materials & Craftsmanship	Envelope Material	125 microns TPU White
	Seam Technology	Ultrasonic Welding (0.3 mm seam)
	Stabilisation	Stabilisation sail
	Valve System	Scoprega 2 stage valve at the back at the low point
	Safety valve	YES (RX/TX control of the valve)
6. Tether & Power System	Tether Line	100m 8 mm Polyester (350 kg BS)
	Tether Power System (TPS)	No (Available on request)
7. Logiscs & Preparation	Setup / Inflation Time	Up to 2 hour
	Packaging Dimensions	1.5 x 1.5 x 1 m

