



DRAKO K5

Selex ES provides advanced Unmanned Aerial Systems (UAS) that enhance situational awareness for its customers worldwide. The Company delivers comprehensive solutions not only for the military sector but also for civil application and is the only European player who can offer a complete and independent understanding and development capability for UAS: from the platform, to the mission system and sensors, to the portable ground control station.

Selex ES's portfolio of micro UAS includes Draco K5, an electrical quad-rotor system capable of autonomous and semi-autonomous flight, hovering to provide monitoring information. The on board tilt video cameras for day and night operations make Draco K5 particularly well suited for civil as well as commercial / industrial aerial video and photography applications.

The Draco K5 is derived from the military version (DRAKO) and is characterised by the use of commercial/COTS components, and way point navigation features. The Draco K5 delivers unique system capabilities for a range of applications and provides the customer with new possibilities in video imaging and photography. The Draco K5 can be easily customised to customers' needs and applications with a wide array of multiple video and special sensors (i.e. radiation meters, gas meters) options available.

The standard Draco K5 system is composed by one air vehicle ready to fly, one standard EO video camera, one flight control and portable Ground Control Station (single monitor version), spare parts kit and ancillary devices.

Drako K5 vertical take-off and landing (VTOL) UAS is electrically powered and ready to fly for a new mission in a few minutes, by easily replacing the battery pack. It is one of the lightest systems with a higher endurance to Maximum Take-Off Weight (MTOW) ratio.

KEY CAPABILITIES

- Safe, reliable and easy operation
- Man portable system (less than 5kg)
- One-man operation
- "under belly" stabilised payload for optimal video coverage
- Autonomous take-off, landing hovering, flight and navigation
- Go-home & emergency landing feature
- Electrical propulsion for minimal audio signature
- Video analogical link
- Low life cycle costs
- Built-in video enhancement features (stabilization)

TECHNICAL SPECIFICATION

Engine/propulsion	4 electrical / brushless LIPO
Main Diameter	70 cm
Height	35 cm
Max Take Off Weight (MTOW)	5kg
Payload Max	1.5kg
Endurance	up to 30 mins, continuous hovering
Data link range	500 m
Max Speed	8 m/s (16 kts)
Operational Altitude (AGL)	10-100m (according to national requirements)
Max Ceiling (ASL)	2.100 m

Standard Payload camera

- Stabilized payload with full coverage of tilt (10° -80°) movements
- Day/night colour video camera with optical zoom (10x)
- Video format: PAL 400 lines

Other video or still camera options available

TYPICAL APPLICATIONS

- Civil protection
- Emergency & disaster monitoring
- Search & rescue
- Fire protection
- Infrastructure inspection
- Environmental monitoring
- Aerial videography and photography.

FLIGHT MODES

- Autonomous take-off and landing
- Auto-recovery
- Return home
- Way points navigation (up to nr. 10 way points)



The Drako K5 is a micro UAS with an endurance of over 30 minutes (at MTOW) in flight and hovering mode, and provides a stabilized picture with high resolution. The Drako K5 represents an affordable solution for acquiring detailed observation or a successful search and rescue operation without risking personnel or for use in areas too dangerous or difficult for humans to reach and survey.

The Drako K5 system is supplied with a Flight Control and Portable Ground Control Station (FCPGCS), derived from the common front-end Guidance-Navigation-Command & Control solution to all of the Selex ES MUAS Micro and Mini UAS (Unmanned Aerial Systems).

The Drako K5 FCPGCS is composed of:
The FCU – Flight Control Unit (single monitor version)
The GDT – Backpackable Ground Data Terminal

The FCU displays real-time video from the video cameras assembled in the UAVs to the operator on the ground, and performs all of the planning and mission execution tasks, manual as well as autonomous, of the UAV plus the debriefing and analysis of all of the main data executed.

The FCPGCS is characterised by an ergonomic and compact design, that is completely backpackable and transportable by a single operator.