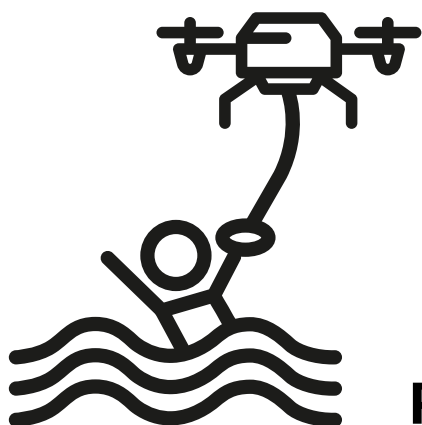




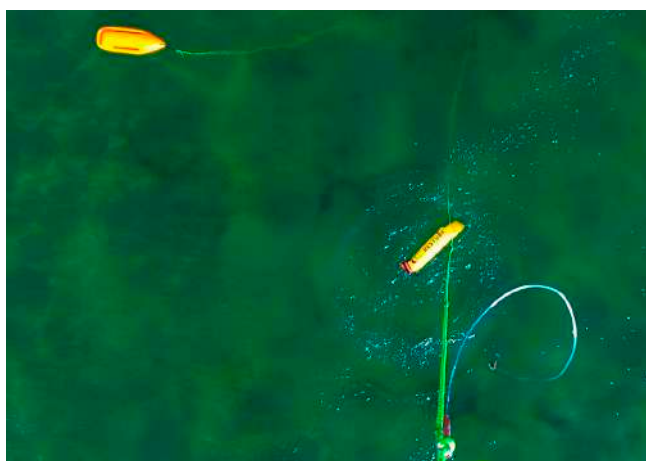
## Technical Specification

### – Pelixar SAR MRe C850 evo.4

\* Search and Rescue - drone for support search and rescue activities



## Pelixar SAR MRe





## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### FUNCTIONAL EQUIPMENT

- flight and mission control from the remote controller,
- flight and mission control from the laptop,
- hybrid flight control from remote controller and laptop,
- module DLM, load ot tow release mechanism - static load up to 25 kg
- module miniDLM, 2x load auxiliary release mechanism, - static load up to 25 kg each,
- automatic speed towing mode for rescued person at maximum speed up to 7 km/h
- warning mode with flashing orange lights,
- warning mode with intermittent sound signal,
- switchable navigation lighting,
- possibility of attaching any rescue tools,
- possibility of attaching a buoy or a rescue belt,
- the possibility of connecting an emergency tow tool,
- possibility of attaching 2x pneumatic self-inflating buoy,
- possibility of attaching 2x position signals,
- possibility of attaching AED unit.





## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### DESIGN AND EQUIPMENT UAV (DRONE)

- **Design:**

- modular design enabling possibility exchanging gimbal/cameras,
- foldable arms (vertically or horizontally),
- amortized and detachable landing gear,
- detachable gimbal (\* option),
- built-in GNSS receiver module (satellite navigation),
- built-in drone telemetry status display,
- drone diagonal size up to 870mm (between the axis of the motors).

- **Drive system:**

- BLDC motors in a protective housing IP34,
- ESC speed regulators cooled in the propeller stream,
- MR propellers size ~16-18" long,
- redundant coaxial system of X8 motors (8 drive motors for 4 arms).

- **Power system:**

- PDB module of own design and manufacture (Power Distribution Board),
- redundant power supply with a pair of batteries ensuring the efficiency of each - 30°C,
- anti-spark main power connectors,
- quick battery connection mechanism,
- constant readiness to fly by powering the drone from the USB port.

- **Accessory - own design and manufacture:**

- DAM (Drone Accessory Module) accessory control module,
- positioning aviation lighting to recognize the orientation of the UAV towards the operator,
- signaling lighting for BVLOS flights,
- warning lights (flashing orange),
- sound signaling of take-off and landing,
- DLM module (Drone Lift Module) main mechanism for release static load up to 25 kg,
- miniDLM module, 2x auxiliary load release mechanism, static load up to 2.5 kg each.



## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### STRUCTURE AND FUNCTIONS OF LINK RC, TELEMETRY AND VIDEO (REMOTE TRANSMISSION)

- ground unit or control console,
- integrated RC and Telemetry link,
- independent control and image transmission,
- video link with an image resolution of 720-1080p,
- indication of the signal strength of the radio communication "RSSI"
- indication of correctness of radio communication "SWR"
- indication of the current intensity on the drone in Amp,
- battery discharge indication in Ah,
- an indication of the AGL and LGL flight altitudes (altitudes relative to the take-off and flight site).

#### CONSTRUCTION AND FUNCTIONS OF FC (FLIGHT CONTROLLER)

- ProfiCNC Cube Orange „Pixawrk”,
- satellite navigation with extension: GNSS+SBAS, GLONASS+EGNOS, BEIDU+QAZS, Galileo,
- redundant GNSS (satellite navigation) receiver (\* optional),
- redundant IMU (inertial unit),
- redundant magnetometer,
- FC redundant power supply,
- no NFC (No Fly Zones) (restrictions built into FC),
- no restrictions on altitude, distance and flight speed built into FC,
- possibility of programming such settings as: the tilt level of the aircraft, horizontal and vertical speed,
- HDOP indication of the quality of the position obtained from GNSS (navigation satellites),
- programmable parameters of towing mode,
- passive ADS-B transponder (or active - \* option).







## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### RC FUNCTIONS (CONTROL)

- flight mode's: Loiter, Cruize, Position Hold, Altitude Hold, Stabilize, Landing,
- towing mode with automatic speed and drone parameter control,
- camera rotation control mode's: Standard or Precision,
- switch zoom in/out,
- switch record foto/video,
- switch camera RGB/Thermo view,
- switch tracking point,
- release switch for main rescue hitch,
- switche for releasing auxiliary rescue hitch,
- full telemetry indications of the flight and drone operating parameters.





## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### OPTICAL KIT (ONE OF 3 OPTIONS):

- **camera RGB vision:**
  - RGB image output resolution 1920x1080p,
  - resolution of RGB image recording to the memory card 1920x1080p,
  - remote control of photo, video, 10x zoom, image switching, tracking,
  - night image mode.
- **camera Thermo vision:**
  - Thermo image output resolution 640x480p,
  - Thermo image output resolution 640x480p,
  - remote control: photo, video, 3x zoom.
- **camera gimbal:**
  - 2D remote control,
  - 3D stabilization,
  - dedicated amortisation,
  - switch camera RGB/Thermo view.





## Technical Specification

### – Pelixar SAR MRe C850 evo.4

#### THE KIT INCLUDES - \* OPTIONS:

- **Air Unit:**

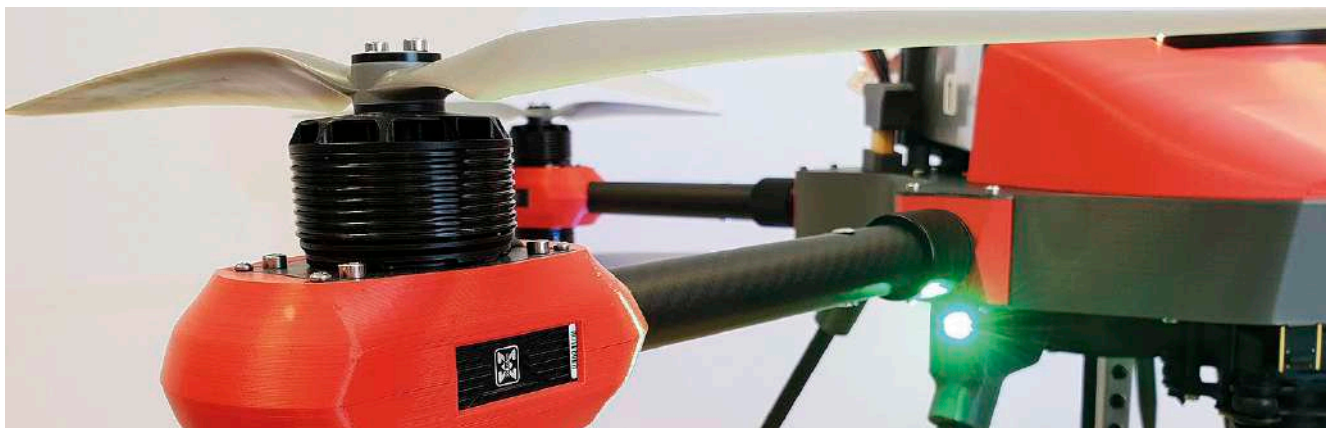
- platform MRe X8,
- gimbal 3D/2D + camera RGB FHD + Thermo SD,
- module DTM (Data Transmission Module),
- module DLM/ mini DLM (Drone Lift Module),
- DAM (Drone Accessory Module) accessory control module,
- module video transmission 720-1080p,
- electrical equipment: PDB, BEC, UBEC, LED,
- 3. set of batteries with current efficiency of 25C or more (6 pcs).

- **Ground Unit:**

- dedicated transport case (\* option),
- remote controller or control console,
- 1080p display monitor or tablet,
- 1 pc battery charger power supply with a power of 500W or more,
- 1 battery charger with 2 charging ports with a total power of 500W or more,
- set of connectors for mobile charging of flight batteries from the car cigaret socket.

- **Other:**

- demonstration of the equipment operation in flight at the place indicated by the contracting authority (\* UE option),
- all-day practical ground and in-flight training in drone operation, for up to 4 people (\* UE option),
- recommendation of an operating procedure,
- 1 year of technical support,
- 2 years warranty.







## Technical Specification

### – limits and recommendations

### dron Pelixar SAR MRe X8 C850 evo.4

#### FLIGHT PERFORMANCE:

- Flight time – up to 30 min,
- Max distance – up to 15 km,
- Max speed – up to 35 m/s,
- Cruising speed - up to 12 m/s,
- Max ascent/descent speed – up to 5 m/s.

#### WORK PARAMETERS:

- Recommended functional load capacity - up to 1,5 kg,
- Maximum functional load capacity - up to 4 kg,
- Towing capacity - a person weighing - up to 125 kg,
- Towing speed - up to 7 km/h,
- Average towing time - up to 10 min.

#### WEATHER RESISTANCE:

- drive motors - Ingress Protection IP34,
- Drone construction, resistance compatibility IP43BM (or higher in option),
- Operating temperature: -25° to +35°C (-13° to 95°F),
- Working wind resistance - up to 60 km/h,
- Maximum wind resistance (emergency) - up to 80 km/h.