



## AP10.1 - AUTOMATIC CONTROL SYSTEM (AUTOPILOT)





APPLICATION

AP10.1 Autopilot is designed to control the vehicles automatically, semi-automatically or manual modes. The following system configuration options for the following unmanned systems are available:

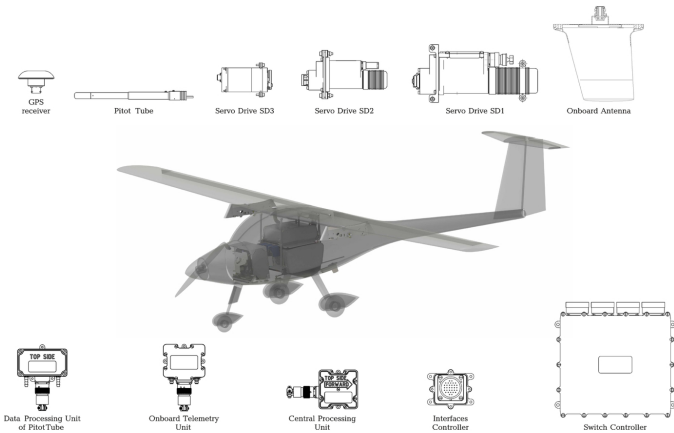
- for the airplanes take-off from the runway and landing on the runway in automatic mode
- for the helicopters take-off and landing in automatic mode
- for boats
- for lighter than-air aircraft

AP10.1 can be installed into unmanned vehicles with a weight of 100 kg up to 4000 kg. Main benefits:

- extended modular configuration
- system out-of-the-box insulation against vibrations

Payload of almost any type can be connected and controlled using the interfaces:

- CAN
- RS-485
- RS-232
- UART
- 1-Wire



KEY FEATURES OF THE AP 10.1 (AUTOMATIC CONTROL SYSTEM FOR THE VEHICLES ):

- control of actuating mechanisms
- engine control
- semi-automatic control with automatic stabilization of the vehicles
- manual control using the main 928MHz communication channel
- from ground control station (GCU)
- control of the vehicles object in emergency mode
- payload control
- payload feedback
- control of rotating platforms in gyro-stabilization mode using AP10.1
- receipt and transfer of telemetric data between GCU and the vehicles
- simulation mode
- flight simulator
- onboard power control
- power stabilization
- conversion
- power distribution, including emergency power supply mode
- onboard power monitoring

Available Interfaces :

- up to 15 x servo drives (PWM control)
- 2x inputs for RPM sensor (Hall- effect sensors)
- 1-Wire interface
- UART interface
- RS-485 interface
- CAN interface
- RS-232 interface
- Low-side power output (3.7A, @ 20V, 68M0hm)
- 3x digital inputs (timing, level)
- 5x general purpose inputs-outputs (remappable on MCU)



TECHNICAL SPECIFICATIONS

Operating temperature	IP rating	Body	Connector type	Power supply		Protection	
from -40°C to +60°C	IP67	aluminum alloy	Amphenol PT02E12-10P Amphenol PT02E8-4P Amphenol PT02E18-32P SMA	7-27 V	All digital logic inputs and outputs are protected	ESD protection	Power supply reverse-polarity protection

VTOL drone



Fixed Wing UAS



Unmanned Surface Vessel (USV)

