FC400X Flight Control

Model: FC400X

Product description :

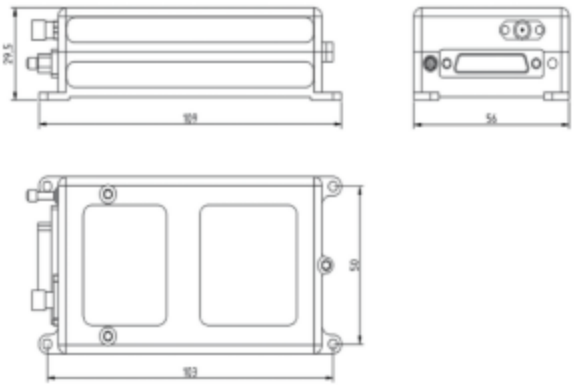
Wide temperature operation, support oil movement, support RTK&PPK.
The FC400X series, flight control and navigation system, is based on the S4 series. It is integrated with a wide range of temperature working sensors.The S4plus can stably work from - 40℃ to +85℃ .

Features:

Support 4 forms of UAV (including conventional tail, V- tail, and flying wing) electric and oil-powered
composite (vertical take- off and landing fixed- wing), conventional fixed- wing, tilt- rotor and multi-rotor;
Integrated with micro GPS/MINS integrated navigation system, barometric altimeter, differential pressure
airspeed meter, 2- channel speed measurement, 1- channel oil quantity measurement;
Support external differential GPS (RTK,PPK,Dual antenna orientational function are all optional), and the external differential GPS is redundant with internal single- point GPS module, and the system automatically selects the better one;
Support external compass, which is convenient for users to select the area with less magnetic interference
to improve the heading measurement accuracy;
The S4plus series flight control system works normally in the range of - 40 ℃ to 85℃ ;
The perfect emergency protection mechanism can protect against low voltage, low oil quantity, low speed,
abnormal posture, high altitude, low GPS position accuracy, navigation system failure, exceeding of safety and control radius ranges, remote control failure, etc.;
It can preset 100 landing points, automatically land nearby according to the emergrncy;
Provide 8 user routes, each route can add 800 waypoints; automatically generate hovering route, hovering
center, hovering radius, and number of hovering circles;
Provide photo (shutter control) function in the flight segment, timing / fixed- distance setting

can be set;
Support typical photoelectric pods, open platform, and three- axis platform control for special rotation and control of surveying and mapping;
The flight information and mission information are recorded and downloaded separately. The flight information recording time is up to 9 hours, and the mission information record can reach 10,000 information packs;
The ground monitoring and control software support online map and irregular multi- measurement automatic mapping route planning, and support automatic planning of oil, electric and other patrol usages, which can alert users to complete pre- flight inspection.

External dimension:



FC400X: vertical take-off and landing fixed-wing flight control and navigation system .
FC410X tilt-rotor flight control and navigation system .
FC450: conventional fixed-wing (hand throwing, ejection, parachute landing, sprinting take-off and landing) flight control and navigation system.

Performance index:

Parameter	index
Attitude precision	0.5°
Heading precision	2°
Position accuracy	2.5m
Angular velocity measurement range	±500° /s
Acceleration measurement range	±6g
Height measuring range	-500m ～ 10000m
The range of voltage monitoring	0 ～ 52V
Servo updating frequency	50Hz
Engine speed monitoring range	0 ～ 20000RPM

Communication interface	RS- 232C
Voltage monitoring	2 channels
Engine speed monitoring range	2 channels
PWM control range	9 channels
Digital output range	3 channels（PWM programmable）
Expansion serial port	3 channels（connect RTK, mission payload, etc.）
Sbus input range	1 channel
Number of routes	8 routes（800 waypoints on each route）
Built-in data logger	9 hours
Photographing point	10000 points
Emergency landing point	100 points
Electrical parameters	
Power supply voltage	DC4.5- 9.0V
Power consumption	＜ 3W
Physical parameters	
Weight	≤130 g
Dimensions（mm）	109*56*29.5
Environment parameters	
Working temperature	-40℃～ 85℃
Storage temperature	-40℃～ 85℃