

SWIWIN SW800Pro

Technical specifications



SWIWIN SW800Pro List of engine accessories

serial number	name	Picture specification	quantity
1	Engine body		1 set
2	ECU (V5)		one
3	GSU		one
4	Fixing frame		one
5	DB3 Power plug		one
6	DB15 Signal plug		one
7	Tubing	 8*6mm	2m

Technical parameter

model	SW800Pro
Thrust	80kg
Diameter (mm)	207mm
Length (mm)	455mm
weight	8400g
ECU weight	910g
usage temperature	-40°C~50°C
supply voltage	16V-32V
starting system	One-button electronic start
Rpm Range	25000-65000
Exhaust Temperature	750°C
Fuel Consumption	1850g/min
fuel	kerosene
lube oil	3%~5%
Maintenance Interval	25H

Engine start parameters

Pump Voltage	0.6V-0.76V
RPM Start Up Ramp	100%
Pump Start Up Ramp	2
Glow Plug	5-7.6V
Valve	10-40
Ignition RPM	1300
Preheat RPM	2000
RPM Off Starter	13000

Engine operating parameters

RPM ACC	10
RPM DEC	10
Max RPM	65000
Idle RPM	25000
Minimum speed	15000
Max Temp	1000
Low Volt	10V
Restart	close
Restart Glow Plug	Consistent with the voltage of the burner
Pump Limit	20V
Idle Stable	5-8

Engine cooling parameters

cool	2000rpm
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Starting motor parameters

Pop-up time	0.8S
Ejection voltage	5V
Run Voltage	2.5V
RPM Stable	20

Note: All data are measured at standard air pressure.

Control

1、 Throttle signal

The throttle adopts the pulse width (PWM) control mode, the pulse width is 1ms~2ms, 1ms corresponds to the minimum throttle (0%), 2ms corresponds to the maximum throttle (100%), the pulse high level is 3.3V and 5V(3.3V and 5V are available on average), and the pulse low level is 0V.

2、 Start switch

The start switch adopts the pulse width (PWM) control mode, the pulse width is 1ms~2ms, 1ms corresponds to off, 2ms corresponds to on, the pulse high level is 3.3V and 5V(3.3V and 5V can be used equally), and the pulse low level is 0V.

3、 Telemetry data

① The engine has telemetry function, and data is transmitted through the 232 standard serial port, and the baud rate of the serial port can range from 9600 bps to 57600 bps.

② The data to be measured include but not limited to engine speed, engine throttle, oil pump voltage, engine state and error information.

③ The communication protocol of the data to be measured is open, and detailed communication protocol description documents are provided.

4、 Data record

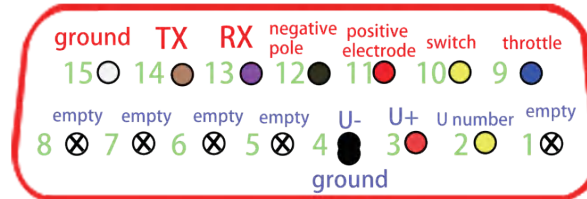
① The engine has the data recording function, which can record the data 2 hours before the engine failure.

② Data records include but are not limited to engine speed, engine throttle, oil pump voltage, engine status and error information.

③ Provide engine data analysis software to facilitate data analysis after flight.

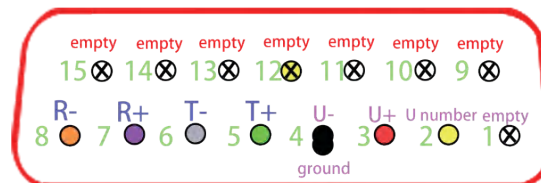
Definition

1、 DEFINITION OF RS232 SIGNAL INTERFACE



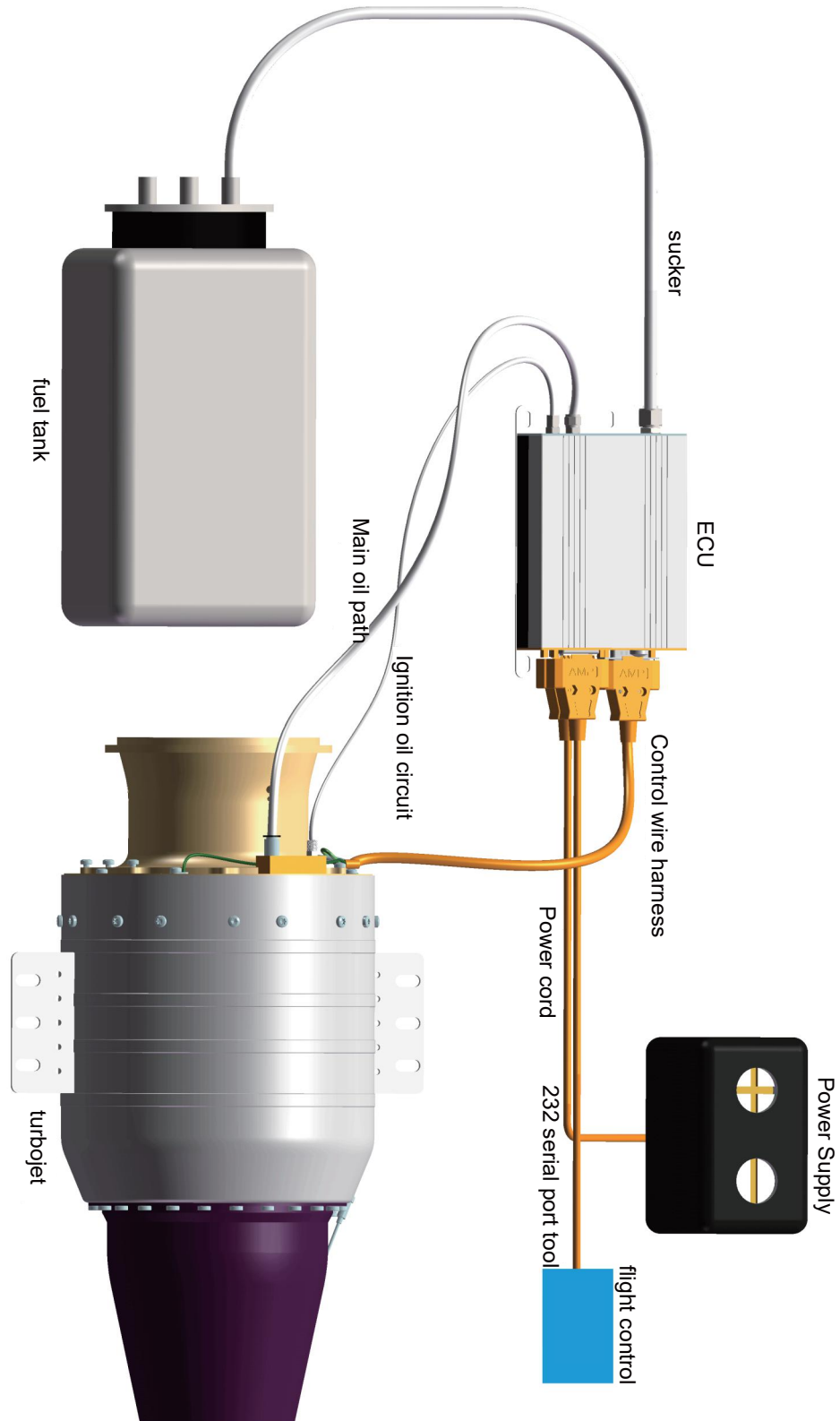
- 2: GSU data
- 3: GSU power supply positive
- 4: GSU negative power supply
ground
- 9: PPM throttle
- 10: PPM switch
- 11: PPM power supply positive
- 12: PPM negative power supply
- 13: RX
- 14: TX
- 15: ground

2、 RS422 SIGNAL INTERFACE DEFINITION



- 2: GSU data
- 3: GSU power supply positive
- 4: GSU negative power supply
ground wire
- 5: T+
- 6: T-
- 7: R+
- 8: R-

System connection diagram





Product dimension diagram

