EMU 912iS
Rotax® 912 iS Engine Management Unit

- State-of-the-art Engine Management Unit for the Rotax® 912 iS aero engine
- Dual isolated, fully independent CANaerospace network interfaces
- Operates from single 9-24VDC aircraft power supply
- Mechanical dimensions 118 mm x 146 mm x 84 mm, weight 0.95 kg
- Integrates seamlessly into the Rotax® 912 iS engine wire harness
- Minimum installation effort (3 connectors with 9 wires only)
- Displays all engine parameters including external fuel pressure signal
- Continuous monitoring and health checking of both ECU CANaerospace networks
- User-configurable for metric or US units, engine or propeller RPM and display language
- Data recording capability for the entire engine TBO
- Integrated GPS/Galileo sensor, powerful data processing and visualization tool for recorded data
- Software upgrades via SDHC memory card
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Technical Specification

The EMU 912iS embeds into the Rotax® 912 iS aero engine system and provides all indications available through the redundant CANaerospace network interface implemented for the 912 iS Engine Control Unit (ECU). The EMU 912iS functionality includes continuous monitoring of the network health status, and the indication of all ECU generated warning messages. GPS/Galileo data is recorded together with engine data. All data is correlated and may be visualized using Google Earth. An optional fuel pressure sensor is included in the data display.

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<th>Specification Item</th>
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| Mechanical Dimensions (width x height x depth) | 146mm x 118mm x 84mm  
5.75" x 4.64" x 3.30"                                                               |
| Mass                                   | 0.95kg                                                                               |
| Electrical Power Supply                | 9-24VDC, maximum power consumption 8.5W (0.6A@14VDC)                                  |
| Display                                | Active Matrix TFT, 640 x 480 pixels, max. brightness 600 cd/m²                        |
| Memory Card Interface                  | SD or SDHC Card, max. 16GB                                                          |
| Environmental Conditions               | Operational temperature range: -10 deg. C to +70 deg. C,  
maximum humidity: 95% (non-condensing), maximum altitude:  
7620m (25.000ft)                                                                    |
| Rotax 912iS ECU Interface              | Dual, independent and galvanically isolated CANaerospace interfaces according to ISO 11898-2 |
| Fuel Pressure Sensor Interface         | 0-5 bar pressure range, 12VDC supply voltage (max. supply current 25mA), output signal 0.5V (= 0 bar) to 4.5V (= 5 bar) |
| GPS/Galileo Sensor                     | Combined GPS/Galileo Sensor, 4 Hz update rate                                       |
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Installation

The EMU912iS integrates seamlessly into the Rotax® 912 iS wire harness. The Installation is exceptionally simple. Only three connectors with 9 wires are required to provide the full functionality. All interfaces are isolated from each other for electromagnetic compatibility with other systems.

Display Pages

The EMU 912iS supports several display pages, providing detailed information about engine performance and status, CANaerospace network health and the data recording status. The MAIN page provides assistance for the engine cold start power setting.
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Data Storage, System Configuration and Software Upgrades

The EMU 912iS software automatically records all ECU messages transmitted on the redundant Rotax® 912 iS CANaerospace networks. The network interfaces operate under sustained 100% bus load without dropping any messages and provide a 60 nanosecond time stamp resolution. The integrated, front panel accessible SDHC interface is used for data acquisition storage, system configuration information and software upgrades. The SDHC card slot accepts memory cards with sizes up to 16GBytes. Software upgrades may be downloaded from the Stock Flight Systems website and placed on SDHC card for upgrading the EMU 912iS with the current software version.

The EMU 912iS is delivered with the Engine Monitoring Debriefing System (EMDS) software, a powerful toolbox for Linux, MacOS and Windows XP/7 which uses the data files recorded on the EMU 912iS SDHC card. Among other features, EMDS allows data visualization in engineering formats and the export of the data into other formats like .csv. EMDS upgrades for the operating systems mentioned above may be downloaded from the Stock Flight Systems website.

GPS/Galileo Sensor

The EMU 912iS combined GPS/Galileo sensor adds time correlated 4Hz GPS/Galileo data to the engine data recording, allowing to generate performance data from the combination of engine data with position, ground speed, height and time. Flight pathes together with engine data can be visualized in Google Earth. GPS/Galileo date and UTC information provides the time base for the recording files.
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Contact

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<tr>
<th>Company</th>
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