

SENTRY COCKPIT VOICE AND FLIGHT DATA RECORDER (CVFDR)



CAPABILITIES

- Extremely compact and lightweight — weighs as little as 4.5 lb. (2kg)
- Advanced hardware design minimizes size, weight & power (SwAP)
- Innovative memory protection system (patent pending)
- Meets new FAA 25-hour audio recording mandate
- TSO/ETSO and aircraft-specific configurations available
- Qualified to DO-160G and MIL-STD-810F / 461F / 704F
- Modular hardware with broad expansion capabilities
- Internal ambient temperature sensor
- Optional safety critical soft-core processor for third-party software
- Flange mount in any attitude using captive hardware

Sentry Includes a range of aircraft interfaces including:

- ARINC-717 and ARINC-429 (auto detection)
- Ethernet
- MIL-STD-1553 • RS-422/485
- Analog and discrete sensor inputs
- Data Link recording
- Four high or low fidelity audio channels (configurable)
- Rotor speed input

Expansion of Sentry's capabilities includes the acquisition modules designed for the FDS Modular Acquisition Unit (MAU).

The modules convert Sentry into a Data Acquisition and Crash Recorder System and more.

- Expanded Data Acquisition with ARINC 717 and 429 output – ARINC 717, ARINC 429 and MIL-STD-1553 inputs – Analog/Discrete inputs
- Pneumatic (Pitot-Static)
- Quick Access Recorder (QAR)
- GPS Splitter & Receiver Unit
- Emergency Locator Transmitter
- Wireless Data Transfer

TYPE**DESCRIPTION****Physical Dimensions**

Dimensions (in)	3.3 in. H x 4.9 in. D x 6.0 in. W
Dimensions (mm)	85mm H x 124mm D x 152.22mm W
Weight	Stainless Steel @ 7 lb. (3.175kg) nom. Titanium @ 4.5 lb. (2kg) min Color
Color	FED-STD-595 Aviation Orange with high-reflective white stripes

Power

Input Power	Dual-redundant 28 V DC power inputs, MIL-STD-704F
Consumption	8 W max (steady state)

Main Connector	MIL-C-38999 Series III 55 pins as primary input connector. 37-pin connector as GSE and additional interface expansion.
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Environmental	DO-160G & MIL-STD-810F / 461F / 704F
Operating Temperature	55 °C to 71 °C
Non-operating Temperature	55 °C to 85 °C
Humidity	100%
Operational Altitude	70,000 ft.
Operational Shock	20 g
Vibration	14 g
EMI/EMC	DO-160G, MIL-STD-810F / 461F / 704F
Reliability	25,000 operating hrs.
Cooling	Passive convection Crash
Crash Survivability Per ED-112 Penetration	500 lb./10 ft./¼-in. probe
Static Crush	5,000 lb.
Fire Protection	50,000 BTU/sq. ft./hr. for 60 min. @ 1,100 °C; 10 hrs. @ 260 °C
Impact Shock	3,400 g, 6.5 ms, half-sine shock wave
Immersion	Seawater @ 20,000 ft. for 30 days; aircraft and fire extinguishing fluids for 48 hours

Underwater Acoustic Beacon	90-day beacon, TSO-C121b; six-year battery Beacon and bracket supplied with unit
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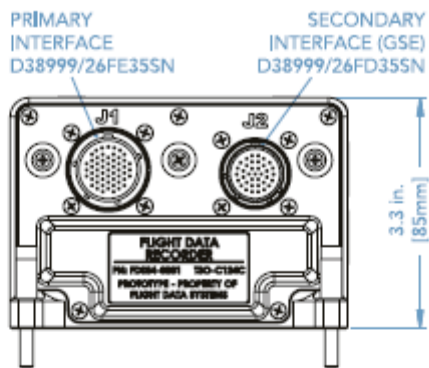
Aircraft Interface Options

Cockpit Audio	Up to 4 audio inputs each selectable for an area mic or crew audio and 1 audio output channel
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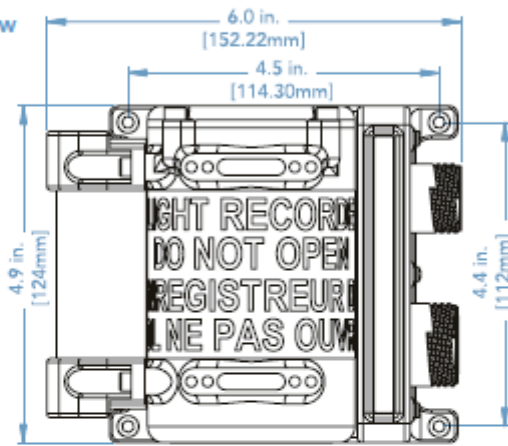
TYPE	DESCRIPTION
Rotor Speed	1 input, 7 Hz to 6 kHz, 2 VRMS to 122 VRMS
ARINC 429	Minimum of 4 inputs, 2 switchable outputs
ARINC 717	64 to 1,024 wps with 2 switchable outputs
ARINC 777	RIPS interface
Ethernet	10/100 Base-T with UDP/IP
MIL-STD-1553B	Up to 2 dual-redundant buses, each functioning as a Remote Terminal (RT) and bus monitor simultaneously
Channels Differential Inputs	± 48 V DC or ± 6 V DC
Control Units	Optional, ARINC 757-compatible, panel-mount unit for audio testing and erasing, with internal and external cockpit area microphone options
RIPS	(Recorder Independent Power Supply), optional bolt-down RIPS authorized to ARINC 777 and TSO-C155 for additional 10 minutes of CVFDR power

SENTRY Dimensions

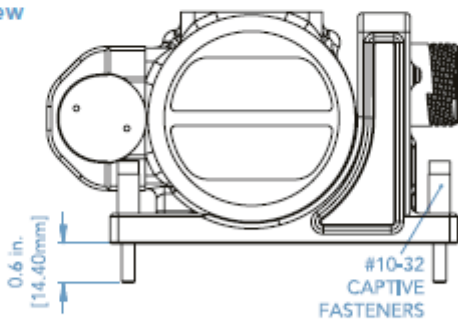
Front View



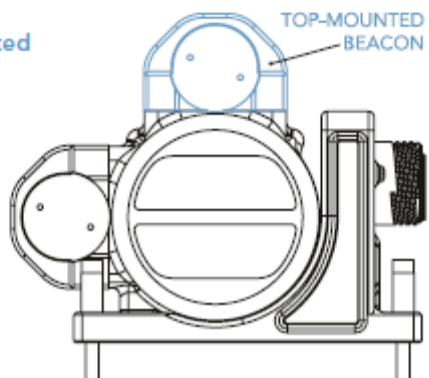
Top View



Side View



Side View with Optional Top-Mounted Beacon



Feel free to contact us at contact@vibratech.fr for more details