

REVOLUTION RECORDER SERIES

REVO 250LW CVFDR

The REVO 250LW CVFDR is designed for the emerging Advanced Air Mobility industry, meeting all stringent EUROCAE ED-112A crash survivability requirements for Flight Data Recorders and Cockpit Voice Recorders when fitted without an underwater locator beacon for ultra low SWaP (size, weight and power) at a price point of an ED-155 recorder.



| | |
|------------------------------------|---|
| Dimensions | 80mm (3.1") width, 155mm (6.1") depth, 80mm (3.1") height |
| Weight | Less than 2.3lb (1.05 kg) |
| Mounting Type | Flanged with Qty 4 #10 QPL fastener (e.g. NAS1352-3-10) |
| Mounting Orientation | Unrestricted |
| Construction | Aluminium AMS QQ-A-200/8, ASTM-B221 |
| Finish | MIL-DTL-5541 Type II Class 3 on exposed and faying metal surfaces MIL-PRF-85285 Top Coat (Aviation Orange) |
| Power supply input | 28 VDC nominal, 10 to 80 VDC, DO-160 CAT Z |
| Power supply consumption | Maximum 5 watt |
| Power supply hold-up energy | 10 minutes minimum (Internal Recorder Independent Power Supply) |
| Input Connector | MIL-DTL-38999 Series III, D38999/20FG35PN |
| Mating Connector | MIL-DTL-38999 Series III, D38999/26FG35SN |
| Temperature | -55 to +71 degrees Celcius (+85 non-operating) |
| Altitude | Up to 55,000 ft |
| Environmental Qualification | RTCA DO-160G |
| Design Assurance | RTCA DO-178C Level D |
| Crash Survivability | EUROCAE ED-112A |
| Design Approvals | TSO-C123c, TSO-C124c, TSO-C177a |
| Production Approvals | FAA TSOA, FAA 8130-3 Release |

| Test | ED-112A | ED-155 |
|--------------------|---------------------|-------------------------|
| Impact Shock | 3,400 g | 1,000 g |
| Penetration | 500 lb, 10ft drop | Nil |
| Static Crush | 5,000 lb | 1,000 lb |
| High Temp Fire | 1,100 deg C, 1 hour | 1,100 deg C, 15 minutes |
| Low Temp Fire | 260 deg C, 10 hours | Nil |
| Deep Sea Immersion | 20,000ft, 30 days | Nil |

With standard 16 gigabyte storage, the recording durations vastly exceed the ED-112A standards of 25 hours for data and video.

Interfaces include:

- ARINC717 (auto rate detection up to 2,048 wps)
- ARINC429 (4 channels, automatic rate)
- ARINC825 (dual or single channel)
- RS422/485 (dual or single channel)
- 10/100 Ethernet (2 ports) (e.g. for video recording or telemetry/maintenance interfaces)
- 4 channel ED-112A compliant high quality audio

No proprietary GSE tools are required for download with an internal web server able to connect to a standard portable computer. A standard Internal TPM 2.0 security chip is able to enhance cyber security when connected to other ethernet based aircraft systems. Optional recording encryption utilizes asymmetric (RSA-2048) or symmetric (AES-256) algorithms.

Compared with a modern and already lightweight Part 23 and Part 25 CVFDR (equipped with ULB), the AAM recorder further reduces the weight and volume by over 50% while still meeting the challenging ED-112A crash survival requirements.

Diagnostic Solutions International, LLC

ISO9001 & AS9100D Certified

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