



HENSOLDT SferiRec[®] LCR

Lightweight Crash Recorder

- Weighing 1 kilogram
- EASA (E)TSO – 2C197 certified
- Combined recording of voice, data & video
- Integrated sensor package for autonomous operation

One of the lightest recorder on the market

SferiRec® LCR

Compact recorder models for small aircraft platforms

Interfaces

- 2x Discrete/GND open inputs (e.g. for WoW etc.)
- 5 Audio inputs (according to ED-155)
- 1 Audio output
- 1 10/100 MBit Ethernet for image camera and/or audio input recording
- 1x 100 MBit Ethernet for read-out
- 8 ARINC 429 inputs
- 1 ARINC 717 interface, input and output
- 1 ARINC 429 output for SferiRec® LCR Status
- 1 Discrete out interface for SferiRec® LCR Status
- 12x Universal inputs (10 for discrete, analogue or frequency signals; 2 for discrete and frequency)
- 1 RS232 interface (for external GPS)
- 1 Interface to an optional Maintenance/Control Panel

- 2 CAN Bus interfaces (e.g. engine control monitoring)
- 1 Standard SD HC card slot for maintenance recording (optional data retrieval)
- 1 USB 2.0 interface (full speed) for SferiRec® LCR integration & test

Internal Sensors

- 1 3-axis gyroscope
- 1 3-axis g-sensor
- 1 Air pressure sensor
- 1 GPS receiver
- 1 Real Time Clock (RTC)
- 1 Internal temperature sensor
- 1 Integrated area microphone according ED-155 (sampling rate 44,1 kHz)

SferiRec® LCR Technical Data

SferiRec® LCR Dimensions	ARINC 408 80 mm max. (Diameter) × Length 195 mm	ARINC 306 L: 145 mm max. × W: 146 mm max. × H: 76 mm max.
SferiRec® LCR Mass	1,0 kg	1,2 kg
Operating Temperature Range	-40 °C to + 70 °C	
Connector Type	MIL 38999 on rear side	
Power Supply	- 1x Aircraft DC power input (12 VDC to 32 VDC typical less than 10 Watt continuous) - 1x Aircraft DC power input for Warning Bus Power (12 VDC to 32 VDC typical less than 10 Watt continuous) - Transparency / hold up time of at least 2 seconds	
Bulk Erase	Optional Bulk Erase Function via manual selection	
Event Button	User specific events in flight could be recording by pushing the Event Button	
Maintenance Recording	Maintenance Recording Function support and quick access via removable memory card (optional)	
ETSO Functions	- Cockpit Audio Recording System (CARS) for at least 2 hours - Aircraft Data Recording System (ADRS) for at least 25 hours - Partial Airborne Image Recording System (AIRS) for at least 2 hours - Data-Link Recording System (DLRS) for at least 2 hours	
Build Standards	ETSO-2C197, ED-155, RTCA / DO-160G, RTCA / DO-178C, RTCA / DO-254	
Mounting	ARINC 408 or ARINC 3ATI-C	ARINC 306 Dzus rail mounting

Crash Protected Memory (CPM)

Impact Shock (according to ED-155)	6 × 1000 g during 5 ms
Static Crush (exceeding ED-155 requirements)	ED-155: 4.54 kN/Achieved: 8.9 kN
High Temperature Fire (exceeding ED-155 requirements)	ED-155: 1100 °C for 15 minutes/Achieved: 1100 °C for 20 minutes
Penetration Resistance (in addition to ED-155)	25 kg (55 lb) with dropping height 15 cm (6 in)
Deep Sea Pressure and Sea Water Immersion (in addition to ED-155)	30 days (water at a pressure of 60 MPa (equivalent to a depth of 6 000 m)
Fluid Immersion (in addition to ED-155)	Aircraft fluids as defined in ED-112A



SferiRec® LCR 100
(ARINC 408 Cockpit Mounted Unit)



SferiRec® LCR 100
(ARINC 3ATI-C Mounting with ULB)



SferiRec® LCR 200
(ARINC 306 Dzus Cockpit Rail Mounting)