Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	Resolution [4] read out
GPWS (ground proximity warning system).	Discrete		1	
Landing gear or gear selector position.	Discrete		0.25 (1 per 4 seconds).	
DME 1 and 2 Distance	0–200 NM;	As installed	0.25	1 mi.
Nav 1 and 2 Frequency Selection.	Full range	As installed	0.25	

[1] When altitude rate is recorded. Altitude rate must have sufficient resolution and sampling to permit the derivation of altitude to 5 feet.
[2] Percent of full range.
[3] For airplanes that can demonstrate the capability of deriving either the control input on control movement (one from the other) for all modes of operation and flight regimes, the ''or'' applies. For airplanes with non-mechanical control systems (fly-by-wire) the ''and'' applies. In airplanes with split surfaces, suitable combination of inputs is acceptable in lieu of recording each surface separately.
[4] This column applies to aircraft manufactured after October 11, 1991.

[Doc. No. 25530, 53 FR 26150, July 11, 1988; 53 FR 30906, Aug. 16, 1988]

APPENDIX E TO PART 125—AIRPLANE FLIGHT RECORDER SPECIFICATIONS

The recorded values must meet the designated range, resolution and accuracy requirements during static and dynamic conditions. Dynamic condition means the parameter is experiencing change at the maximum rate attainable, including the maximum rate of reversal. All data recorded must be correlated in time to within one second.

Parameters	Range	Accuracy (sensor input)	Seconds per sampling interval	Resolution	Remarks
1. Time or Relative Times Counts. [1].	24 Hrs, 0 to 4095.	±0.125% Per Hour.	4	1 sec	UTC time preferred when available. Count increments each 4 seconds of system operation.
2. Pressure Altitude.	−1000 ft to max certificated altitude of aircraft. + 5000 ft.	±100 to ±700 ft (see table, TSO C124a or TSO C51a).	1	5′ to 35′	Data should be obtained from the air data computer when practicable.
3. Indicated airspeed or Calibrated airspeed.	50 KIAS or minimum value to Max V_{so}, to 1.2 $V._D$.	±5% and ±3%	1	1 kt	Data should be obtained from the air data computer when practicable.
4, Heading (Primary flight crew reference).	0–360° and Discrete ''true'' or ''mag''.	±2°	1	0.5°	When true or magnetic heading can be selected as the primary heading reference, a discrete indicating selection must be recorded.
5. Normal Acceleration (Vertical) [9].	−3g to + 6g	±1% of max range excluding datum error of ±5%.	0.125	0.004g.	
6. Pitch Attitude	±75°	±2°	1 or 0.25 for airplanes operated under § 125.226(f).	0.5°	A sampling rate of 0.25 is recommended.
7. Roll Attitude [2]	±180°	±2°	1 or 0.5 for airplanes operated under § 121.344(f).	0.5°	A sampling rate of 0.5 is recommended.
8. Manual Radio Transmitter Keying or CVR/DFDR synchronization reference	On-Off (Discrete) None.		1		Preferably each crew member but one discrete acceptable for all transmission provided the CVR/FDR system complies with TSO C124a CVR synchronization requirements (paragraph 4.2.1 ED–55).
9. Thrust/Power on each engine—primary flight crew reference.	Full Range Forward.	±2%	1 (per engine)	0.3% of full range.	Sufficient parameters (e.g., EPR, N1 or Torque, NP) as appropriate to the particular engine being recorded to determine power in forward and reverse thrust, including potential overspeed condition.
10. Autopilot Engagement.	Discrete ''on'' or ''off''.		1.		