Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	Resolution [2] read out
Altitude	−1,000 ft to max certificated altitude of aircraft.	±100 to ±700 ft (See Table 1, TSO-C51a).	1	5′ to 30′.
Airspeed	As the installed measuring system.	±3%	1	1 kt
Heading	360°	±2°	1	0.5°.
Normal Acceleration (Vertical)	−3g to + 6g	±1% of max range excluding datum error of ±5%.	8	0.01g
Pitch Attitude	±75°	±2°	2	0.5°
Roll Attitude	±180°	±2°	2	0.5°.
Radio Transmitter Keying	On-Off (Discrete)		1	0.25 sec
Power in Each Engine: Free Power Turbine Speed *and* Engine Torque.	0–130% (power Turbine Speed) Full range (Torque).	±2%	1 speed 1 torque (per engine).	0.2% [1] to 0.4% [1]
Main Rotor Speed	0–130%	±2%	2	0.3% [1]
Altitude Rate	±6,000 ft/min	As installed	2	0.2% [1]
Pilot Input—Primary Controls (Collective, Longitudinal Cyclic, Lateral Cyclic, Pedal) [3].	Full range	±3%	2	0.5% [1]
Flight Control Hydraulic Pressure Low.	Discrete, each circuit		1	
Flight Control Hydraulic Pressure Selector Switch Position, 1st and 2nd stage.	Discrete		1	
AFCS Mode and Engagement Status.	Discrete (5 bits necessary).		1	
Stability Augmentation System Engage.	Discrete		1	
SAS Fault Status	Discrete		0.25	
Main Gearbox Temperature Low.	As installed	As installed	0.25	0.5% [1]
Main Gearbox Temperature High.	As installed	As installed	0.5	0.5% [1]
Controllable Stabilator Position.	Full Range	±3%	2	0.4% [1].
Longitudinal Acceleration	±1g	±1.5% max range excluding datum error of ±5%.	4	0.01g.
Lateral Acceleration	±1g	±1.5% max range excluding datum of ±5%.	4	0.01g.
Master Warning	Discrete		1	
Nav 1 and 2 Frequency Selection.	Full range	As installed	0.25	
Outside Air Temperature	−50 °C to + 90 °C	±2° c	0.5	0.3° c

[1] Per cent of full range.
[2] This column applies to aircraft manufactured after October 11, 1991.
[3] For all aircraft manufactured on or after December 6, 2010, the sampling interval per second is 4.

[Doc. No. 25530, 53 FR 26154, July 11, 1988; 53 FR 30906, Aug. 16, 1988; Amdt. 135–113, 73 FR 12571, Mar. 7, 2008; 73 FR 15281, Mar. 21, 2008; Amdt. 135–121, 75 FR 17047, Apr. 5, 2010]

Appendix F to Part 135—Airplane Flight Recorder Specification

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 Time Counts [1].	24 Hrs, 0 to 4095.	±0.125% Per Hour.	4	1 sec	UTC time preferred when available. Counter 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 $V_{so\pm}$ and V_{so} to 1.2 $V_{.D}$.	±5% and ±3%	1	1 kt	Data should be obtained from the air data computer when practicable.