

Federal Aviation Administration, DOT

Pt. 135, App. E

Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	resolution ⁴ read out
Lateral Acceleration	±1g	±1.5% max range excluding datum error of ±5%.	4	0.01g.
Pitch Trim Position	Full range	±3% unless higher accuracy uniquely required.	1	0.3% ² .
Glideslope Deviation	±400 Microamps	±3%	1	0.3% ² .
Localizer Deviation	±400 Microamps	±3%	1	0.3% ² .
AFCS Mode And Engagement Status.	Discrete .....	.....	1	
Radio Altitude	−20 ft to 2,500 ft	±2 Ft or ±3% whichever is greater below 500 ft and ±5% above 500 ft.	1	1 ft + 5% ² above 500'.
Master Warning	Discrete .....	.....	1	
Main Gear Squat Switch Status.	Discrete .....	.....	1	
Angle of Attack (if recorded directly).	As installed	As installed	2	0.3° ² .
Outside Air Temperature or Total Air Temperature.	−50 °C to + 90 °C	±2° c	0.5	0.3° c
Hydraulics, Each System Low Pressure.	Discrete .....	.....	0.5	or 0.5% ² .
Groundspeed	As installed	Most accurate systems installed (IMS equipped aircraft only).	1	0.2% ² .

If additional recording capacity is available, recording of the following parameters is recommended. The parameters are listed in order of significance:

Drift Angle	When available. As installed.	As installed	4	
Wind Speed and Direction	When available. As installed.	As installed	4	
Latitude and Longitude	When available. As installed.	As installed	4	
Brake pressure/Brake pedal position.	As installed	As installed	1	
Additional engine parameters:				
EPR	As installed	As installed	1 (per engine) ...	
N ¹	As installed	As installed	1 (per engine) ...	
N ²	As installed	As installed	1 (per engine) ...	
EGT	As installed	As installed	1 (per engine) ...	
Throttle Lever Position	As installed	As installed	1 (per engine) ...	
Fuel Flow	As installed	As installed	1 (per engine) ...	
TCAS:				
TA	As installed	As installed	1	
RA	As installed	As installed	1	
Sensitivity level (as selected by crew).	As installed	As installed	2	
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	1mi.
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 Per cent 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 26153, July 11, 1988; 53 FR 30906, Aug. 16, 1988]

APPENDIX E TO PART 135—HELICOPTER FLIGHT RECORDER SPECIFICATIONS

Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	Resolution ² read out
Time (GMT)	24 Hrs	±0.125% Per Hour	0.25 (1 per 4 seconds).	1 sec