

Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	Resolution <sup>4</sup> read out
Altitude .....	– 1,000 ft to max certified altitude of aircraft.	±100 to ±700 ft (See Table 1, TSO-C51a).	1 .....	5' to 35' <sup>1</sup>
Airspeed .....	50 KIAS to V <sub>SO</sub> , and V <sub>SO</sub> to 1.2 V <sub>D</sub> .	±5%, ±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° .....	1 .....	0.5°.
Roll Attitude .....	±180° .....	±2° .....	1 .....	0.5°.
Radio Transmitter Keying .....	On-Off (Discrete) .....	.....	1 .....	.....
Thrust/Power on Each Engine .....	Full range forward .....	±2% .....	1 .....	0.2% <sup>2</sup>
Trailing Edge Flap or Cockpit Control Selection. ....	Full range or each discrete position. ....	±3° or as pilot's Indicator .....	0.5 .....	0.5% <sup>2</sup>
Leading Edge Flap or Cockpit Control Selection. ....	Full range or each discrete position. ....	±3° or as pilot's indicator .....	0.5 .....	0.5% <sup>2</sup>
Thrust Reverser Position .....	Stowed, in transit, and reverse (Discrete). ....	.....	1 (per 4 seconds per engine). ....	.....
Ground Spoiler Position/Speed Brake Selection. ....	Full range or each discrete position. ....	±2% unless higher accuracy uniquely required. ....	1 .....	0.2% <sup>2</sup> .
Marker Beacon Passage .....	Discrete .....	.....	1 .....	.....
Autopilot Engagement .....	Discrete .....	.....	1 .....	.....
Longitudinal Acceleration .....	±1g .....	±1.5% max range excluding datum error of ±5%.	4 .....	0.01g
Pilot Input and/or Surface Position-Primary Controls (Pitch, Roll, Yaw) <sup>3</sup> . ....	Full range .....	±2° unless higher accuracy uniquely required. ....	1 .....	0.2% <sup>2</sup> .
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% <sup>2</sup>
Glideslope Deviation .....	±400 Microamps .....	±3% .....	1 .....	0.3% <sup>2</sup>
Localizer Deviation .....	±400 Microamps .....	±3% .....	1 .....	0.3% <sup>2</sup> .
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 ft + 5% <sup>2</sup> 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% <sup>2</sup> .
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% <sup>2</sup> .
Groundspeed .....	As Installed .....	Most Accurate Systems Installed (IMS Equipped Aircraft Only).	1 .....	0.2% <sup>2</sup> .

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 <sup>1</sup> .....	As installed .....	As installed .....	1 (per engine) ...	.....
N <sup>2</sup> .....	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 .....	.....