

Data element name	Required	Recording interval/time ¹⁾ (relative to time zero)	Data sample rate (per second)	Minimum Range
Lateral acceleration	Optional	0 to 250 ms	100	-5 g to +5 g
Longitudinal acceleration	Optional	0 to 250 ms	100	-50 g to +50 g
Normal acceleration	Optional	0 to 250 ms	100	-5 g to + 5 g
Delta-V, longitudinal	Mandatory	0 to 250 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter.	100	-100 km/h to +100 km/h
Delta-V, lateral	Optional	0 to 250 ms, or 0 to end of Event Time plus 30 ms, whichever is shorter	100	-100 km/h to +100 km/h
Maximum delta-V, longitudinal	Mandatory	0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter.	N/A	-100 km/h to +100 km/h
Maximum delata-V, lateral	Optional	0 to 300 ms, or 0 to end of Event Time plus 30 ms, whichever is shorter	N/A	-100 km/h to +100 km/h
Time, maximum delta-V, lateral	Optional	0 to 300 ms, or 0 to end of Event Time plus 30 ms, whichever is shorter	N/A	0-300 ms, or 0-End of Event Time plus 30 ms, whichever is shorter
Time, maximum delta-V resultant	Optional	0 to 300 ms, or 0 to end of Event Time plus 30 ms, whichever is shorter	N/A	0-300 ms, or 0-End of Event Time plus 30 ms, whichever is shorter
Engine RPM	Optional	-5.0 to 0 sec.	2	0 to 10,000 rpm
Vehicle roll angle	Optional	-1.0 up to 5.0 sec.	10	-1080 deg to +1080 deg
ABS activity (on, off, engaged)	Mandatory	-5.0 to 0 sec.	2	On, Off, Engaged
Stability control (on, off engaged)	Mandatory	-5.0 to 0 sec.	2	On, Off, Engaged
Steering input	Optional	-5.0 to 0 sec.	2	-250 deg CW to +250 deg CCW
Safety belt status, driver (buckled, not buckled).	Optional	-1.0 sec.	N/A	On and Off
Safety belt status, right front passenger (buckled, not buckled).	Optional	-1.0 sec.	N/A	On and Off
Frontal air bag suppression switch status, right front passenger (on, off, or auto).	Optional	-1.0 sec.	N/A	On, Off or Auto
Front air bag deployment time to nth stage, driver. ⁴⁾	Mandatory	Event	N/A	0 to 250 ms
Frontal air bag deployment, time to nth stage, right front passenger ⁴⁾	Mandatory	Event	N/A	0 to 250 ms
Frontal air bag deployment, nth stage disposal, driver, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes).	Optional	Event	N/A	Yes or No
Frontal air bag deployment, nth stage disposal, right front passenger, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes).	Optional	Event	N/A	Yes or No
Side air bag deployment, time to deploy, driver	Optional	Event	N/A	0 to 250 ms
Side air bag deployment, time to deploy, right front passenger	Optional	Event	N/A	0 to 250 ms

Side curtain/tube air bag deployment, time to deploy, driver side	Optional	Event	N/A	0 to 250 ms
Side curtain/tube air bag deployment, time to deploy, right side	Optional	Event	N/A	0 to 250 ms
Pretensioner deployment, time to fire, driver.	Optional	Event	N/A	0 to 250 ms
Pretensioner deployment, time to fire, right front passenger.	Optional	Event	N/A	0 to 250 ms
Seat track position switch, foremost, status, driver.	Optional	-1.0 sec	N/A	Yes or No
Seat track position switch, foremost, status, right front passenger.	Optional	-1.0 sec	N/A	Yes or No
Occupant size classification, driver.	Optional	-1.0 sec	N/A	Yes or No
Occupant size classification, right front passenger.	Optional	-1.0 sec	N/A	Yes or No
Occupant position classification, driver.	Optional	-1.0 sec	N/A	Yes or No
Occupant position classification, right front passenger.	Optional	-1.0 sec	N/A	Yes or No
Time, maximum delta-V	Mandatory	0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter.	N/A	0-300 ms, or 0-End of Event Time plus 30 ms, whichever is shorter
Speed, vehicle indicated	Mandatory	-5.0 to 0 sec.	2	0 km/h to 200 km/h
Engine throttle, % full (or accelerator pedal, % full)	Mandatory	-5.0 to 0 sec.	2	0 to 100 %
Service brake, on/off	Mandatory	-5.0 to 0 sec.	2	On and Off
Ignition cycle, crash	Mandatory	-1.0 sec.	N/A	0 to 60,000
Ignition cycle, download	Mandatory	At time of download ³⁾	N/A	0 to 60,000
Frontal air bag warning lamp, on/off	Mandatory	-1.0 sec	N/A	On and Off
Frontal air bag deployment, time to deploy, in the case of a single stage air bag, or time to first stage deployment, in the case of a multistage air bag, driver.	Mandatory	Event	N/A	0 to 250 ms
Frontal air bag deployment, time to deploy, in the case of a single stage air bag, or time to first stage deployment, in the case of a multistage air bag, right front passenger.	Mandatory	Event	N/A	0 to 250 ms
Multi-event, number of events (1,2)	Mandatory	Event	N/A	1 or 2
Time from event 1 to 2	Mandatory	As needed	N/A	0 to 5.0 sec
Complete file recorded (yes, no)	Mandatory	Following other data	N/A	Yes or No
["Emergency Call System" status]	[Optional]	[to be determined]	[to be determined]	[to be determined]
[ESC status]	[Optional]	[to be determined]	[to be determined]	[to be determined]
[AEBS status]	[Optional]	[to be determined]	[to be determined]	[to be determined]
["Steering Assist Function" status]	[Optional]	[to be determined]	[to be determined]	[to be determined]

Abstract from text :

5.1 Data elements

The EDR shall record data elements listed in column 1 in Table 1 as follows:

- a) Data elements marked as "mandatory" shall be recorded if the vehicle is equipped with the system or function addressed by the data element.
- b) Data elements marked as "optional" may be recorded as specified by the vehicle manufacturer.

Data elements shall be recorded during the interval/time and at the sample rate specified in Table 1.

The recorded data elements shall be reported in accordance with the range, accuracy and resolution specified in Table 1.

The vehicle manufacturer may include additional data elements

Accuracy	Resolution	Type
+/- 10 %	0.5 g	Vehicle
+/- 10 %	0.5 g	Vehicle
+/- 10 %	0.5 g	Vehicle
+/- 10 %	1 km/h	Vehicle
+/- 10 %	1 km/h	Vehicle
+/-10 %	1 km/h	Vehicle
+/-10 %	1 km/h	Vehicle
+/-3ms	2.5 ms	Vehicle
+/-3ms	2.5 ms	Vehicle
+/- 100 rpm	100 rpm	Vehicle
+/- 10 %	10 deg	Vehicle
N/A	On, Off, Engaged	Brake System
N/A	On, Off, Engaged	Brake System
+/- 5%	1%	Steering System
N/A	On and Off	Restraints
N/A	On and Off	Restraints
N/A	On, Off or Auto	Restraints
+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints
N/A	Yes or No	Restraints
N/A	Yes or No	Restraints
+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints

+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints
N/A	Yes or No	Seat
N/A	Yes or No	Seat
N/A	Yes or No	Seat
N/A	Yes or No	Seat
N/A	Yes or No	Seat
N/A	Yes or No	Seat
+/-3ms	2.5 ms	Vehicle
+/- 1 km/h	1 km/h	Vehicle
+/- 5 %	1%	Vehicle
N/A	On and Off	Brake System
+/- 1 cycle	1 cycle	Vehicle
+/- 1 cycle	1 cycle	Vehicle
N/A	On and Off	Driver Information
+/-2 ms	1 ms	Restraints
+/-2 ms	1 ms	Restraints
N/A	1 or 2	Event
0.1 sec	0.1 sec	Event
N/A	Yes or No	File
<i>[to be determined]</i>	<i>[to be determined]</i>	[Vehicle]
<i>[to be determined]</i>	<i>[to be determined]</i>	[Brake System]
<i>[to be determined]</i>	<i>[to be determined]</i>	[Brake System]
<i>[to be determined]</i>	<i>[to be determined]</i>	[Steering System]

