| **No.** | **Data element name** | **Definition** | **SG-EDR Conclusions:****Value added – Yes/No** | * **Mandatory If equipped**
* **If recorded[[1]](#footnote-1)**
 | **If Part 563 element, is 563 format acceptable?** | **Step 1 or 2** | **If Step 1 is lead time necessary?****Phase #1 – Q3 2021****Phase #2 – 20xx** | **Triggered event applicability** | **Recording interval/time[[2]](#footnote-2) (relative to time zero)** | **Data sample rate (samples per second)** | **Minimum range** | **Accuracy[[3]](#footnote-3)** | **Resolution** | **Type** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | Lateral Acceleration(Part 563) | Lateral acceleration means the component of the vector acceleration of a point in the vehicle in the y-direction. The lateral acceleration is positive from left to right, from the perspective of the driver when seated in the vehicle facing the direction of forward vehicle travel. | Germany – useful – should be mandatory at some point of time(Not for VRU) | ~~Part 563 – If Recorded~~EC/NL/Germany/UK Mandatory Cn – mandatory on condition delta V not mandatoryJP non-mandatoryOICA non mandatoryNo consensus | ?EC higher sampling freqs |  |  | [OICA - Not required for VRU Triggered Events] | 0 to 250 ms | 100 | -5 g to +5 g |  ± 10% | 0.5 g | Vehicle |
| **2** | Longitudinal acceleration(Part 563) | Longitudinal acceleration means the component of the vector acceleration of a point in the vehicle in the x-direction. The longitudinal acceleration is positive in the direction of forward vehicle travel. |  | ~~Part 563 – If Recorded~~EC/NL/Germany/UK MandatoryCn – mandatory on condition delta V not mandatoryJP non-mandatoryOICA non mandatoryNo consensus | EC higher sampling freqs |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 0 to 250 ms | 100 | -50 g to +50 g | ± 10% | 0.5 g | Vehicle |
| **3** | Normal acceleration(Part 563) | Normal acceleration means the component of the vector acceleration of a point in the vehicle in the z-direction. The normal acceleration is positive in a downward direction and is zero when the accelerometer is at rest. |  | ~~Part 563 – If Recorded~~EC/NL/Germany/UK mandatoryCN – not mandatoryJP – non-mandatoryOICA non mandatoryNo consensus | EC higher sampling freqs |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 0 to 250 ms | 100 | -5 g to +5 g | ± 10% | 0.5 g | Vehicle |
| **4** | Delta-V, longitudinal(Part 563) | Delta-V, longitudinal means the cumulative change in velocity, as recorded by the EDR of the vehicle, along the longitudinal axis, starting from crash time zero and ending at 0.25 seconds, recorded every 0.01 seconds. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for R/O and VRU Triggered Events] | 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 | ± 10% | 1 km/h | Vehicle |
| **5** | Delta-V, lateral(Part 563) | Delta-V, lateral means the cumulative change in velocity, as recorded by the EDR of the vehicle, along the lateral axis, [~~starting from crash time zero and ending at 0.25 seconds, recorded every 0.01 seconds~~.] |  | ~~Part 563 – If Recorded~~JP mandatory if deployable side impact restraint fittedCN, OICA – delta v not needed if lat accel recordedEC mandatoryRevisit after discussing freq for elements 1-3 |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 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 | ± 10% | 1 km/h | Vehicle |
| **6** | Maximum delta-V, longitudinal(Part 563) | Maximum delta-V, longitudinal means the maximum value of the cumulative change in velocity, as recorded by the EDR, of the vehicle along the longitudinal axis, starting from crash time zero and ending at 0.3 seconds. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for R/O and VRU Triggered Events] | 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 | ± 10% | 1 km/h | Vehicle |  |
| **7** | Maximum delta-V, lateral(Part 563) | Maximum delta-V, lateral means the maximum value of the cumulative change in velocity, as recorded by the EDR, of the vehicle along the lateral axis, [~~starting from crash time zero and ending at 0.3 seconds.]~~ |  | Part 563 – If RecordedEC NL Mandatory Consider tying to other delta V’s if made mandatory – consider making this mandatory as well. Subject to same constraints for other delta v’s (e.g., side impact restraints)JP mandatory if Delta V is recorded |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 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 | ± 10% | 1 km/h | Vehicle |
| **8** | Time, maximum delta-V, (Part 563)(longitudinal)? | Time, maximum delta-V, longitudinal means the time from crash time zero to the point where the maximum value of the cumulative change in velocity is found, as recorded by the EDR, along the longitudinal axis.  | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | 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 | ± 3ms | 2.5 ms | Vehicle |
| **9** | Time, maximum delta-V, lateral(Part 563) | Time, maximum delta–V, lateral means the time from crash time zero to the point where the maximum value of the cumulative change in velocity is found, as recorded by the EDR, along the lateral axis. | Yes | ~~Part 563 – If Recorded~~EC Mandatory if equipped JP Subject to same constraints for other delta v’s (e.g., side impact restraints)CN Time max delta v not needed if lat accel recordedUS (not needed for R/O and VRU) |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter. | N/A | 0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter. | ± 3ms | 2.5 ms | Vehicle |
| **10** | Time, maximum delta-V resultant(Part 563) | Time, maximum delta–V, resultant means the time from crash time zero to the point where the maximum delta–V resultant occurs, as recorded by the EDR or processed during data download. (can be calculated from other mandatory recorded data (Lat and long accel) Does not need to be stored in vehicle | Yes as long as available either recorded or calculated | ~~Part 563 – If Recorded~~EC Mandatory if equipped JP Subject to same constraints for other delta v’s (e.g., side impact restraints)CN Time max delta v not needed if lat accel recordedUS (not needed for R/O and VRU) |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | 0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter. | N/A | 0 to 300 ms, or 0 to End of Event Time plus 30 ms, whichever is shorter. | ± 3ms | 2.5 ms | Vehicle |
| **11** | Engine RPM(Part 563)    | Engine RPM means: | Yes | ~~Part 563 – If recorded~~Mandatory if equippedNot for electric drivetrains |  |  |  | [OICA - Not required for VRU Triggered Events] | -5.0 to 0 sec | 2 | 0 to 10,000 rpm | ±100 rpm | 100 rpm | Vehicle |
| 1. For vehicles powered by internal combustion engines, the number of revolutions per minute of the main crankshaft of the vehicle's engine, and

(Part 563) |
| 1. For vehicles not entirely powered by internal combustion engines, the number of revolutions per minute of the motor shaft at the point at which it enters the vehicle transmission gearbox.

(Part 563) |
| 1. ~~For vehicles not powered by internal combustion engines at all, the [number of revolutions per minute of the motor].~~

~~(consider to add)~~ |
| **12** | Vehicle roll angle(Part 563) | Vehicle roll angle means the angle between the vehicle y-axis and the ground plane. (Can be calculated from Roll Rate) [either roll angle or roll rate must be recorded] | Not of value if roll rate is recordedCN – not valueJP need to consider further | ~~Part 563 – If recorded~~Mandatory if equipped |  | JP Discuss for step 1 |  | [OICA - Not required for VRU Triggered Events] | -1.0 up to 5.0 sec | 10 | -1080 deg to +1080 deg | ± 10% | 10 deg | Vehicle |
| **13** | ABS activity (Part 563) | ABS activity means the anti-lock brake system (ABS) is actively controlling the vehicle's brakes. | Yes | ~~Part 563 – If recorded~~Mandatory if (ABS) equipped |  |  |  |  | -5.0 to 0 sec | 2 | On, Off, Engaged | N/A | On, Off, Engaged | Brake System |
| **14** | Stability Control(Part 563)  | Stability control means any device that complies with UN ECE R140, “Electronic stability control systems”. | Yes | ~~Part 563 – If recorded~~Mandatory if (ESC) equipped |  |  |  |  | -5.0 to 0 sec. | 2 | On, Off, Engaged | N/A | On, Off, Engaged | Brake System |
| Electronic Stability Control (ESC) |
| **15** | Steering input(Part 563) | Steering input means the angular displacement of the steering wheel measured from the straight-ahead position (position corresponding to zero average steer angle of a pair of steered wheels). | Yes | ~~Part 563 – if recorded~~Mandatory if steering sensor equipped |  |  |  |  | -5.0 to 0 sec. | 2 | -250 deg CW to +250 deg CCW | ±5% | 1% | Steering System |
| **16** | Safety belt status, driver (buckled, not buckled).Part 563) | Safety belt status means the feedback from the safety system that is used to determine that an occupant's safety belt (for both driver and front passenger) is fastened or unfastened. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | On and Off | N/A | On and Off | Restraints |
| **17** | Safety belt status, front passenger (buckled, not buckled).(Part 563) | Safety belt status means the feedback from the safety system that is used to determine that an occupant's safety belt (for both driver and front passenger) is fastened or unfastened. | Yes | ~~Part 563 – if recorded~~Mandatory if equipped with belt status sensor |  |  |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | On and Off | N/A | On and Off | Restraints |
| **18** | Frontal air bag suppression switch status, front passenger (on, off, or auto).(Part 563) | Status of the frontal air bag suppression switch, front passenger indicating whether the passenger air bag suppression system is on or off.  | Yes | ~~Part 563 – if recorded~~Mandatory if equipped |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | -1.0 sec | N/A | "On, Off or Auto | -1.0 sec | N/A | "On, Off or Auto |
| **19** | Front air bag deployment time to nth stage, driver.(Part 563)  | Frontal air bag deployment, time to nth stage, driver | Yes (may need to further clarify relationship to #43) | Mandatory if equipped with a driver’s frontal air bag with multi-stage inflator |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | ±2 ms | 1 ms | Restraints |
| **20** | Frontal air bag deployment, time to nth stage, front passenger.(Part 563) | Frontal air bag deployment, time to nth stage, passenger | Yes (may need to further clarify relationship to #44) | Mandatory if equipped with a driver’s frontal air bag with multi-stage inflator |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | ±2 ms | 1 ms | Restraints |
| **~~21~~** | ~~Frontal air bag deployment, nth stage disposal, driver, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes).~~~~(Part 563)~~ | ~~Disposal means the deployment command of the second (or higher, if present) stage of a frontal air bag for the purpose of disposing the propellant from the air bag device.~~ | ~~CN – No~~Remove from Table  | ~~Part 563 – If recorded~~ |  |  |  |  |  |  |  |  |  |  |
| **22** | ~~Frontal air bag deployment, nth stage disposal, front passenger, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes).~~~~(Part 563)~~ | ~~Disposal means the deployment command of the second (or higher, if present) stage of a frontal air bag for the purpose of disposing the propellant from the air bag device.~~ | ~~Remove from Table~~ | ~~Part 563 – if recorded~~ |  |  |  |  |  |  |  |  |  |  |
| **23** | Side air bag deployment, time to deploy, driver.(Part 563) | Time to deploy, side air bag/curtain means the elapsed time from crash time zero to the deployment command for a side air bag or a side curtain/tube air bag (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **24** | Side air bag deployment, time to deploy, front passenger.(Part 563) | Time to deploy, side air bag/curtain means the elapsed time from crash time zero to the deployment command for a side air bag or a side curtain/tube air bag (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **25** | Side curtain/tube air bag deployment, time to deploy, driver.(Part 563) | Time to deploy, side air bag/curtain means the elapsed time from crash time zero to the deployment command for a side air bag or a side curtain/tube air bag (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **26** | Side curtain/tube air bag deployment, time to deploy, front passenger.(Part 563) | Time to deploy, side air bag/curtain means the elapsed time from crash time zero to the deployment command for a side air bag or a side curtain/tube air bag (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **27** | Pretensioner deployment, time to deploy, driver.(Part 563) | Time to deploy, pretensioner means the elapsed time from crash time zero to the deployment command for the safety belt pretensioner (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **28** | Pretensioner deployment, time to deploy, front passenger.(Part 563) | Time to deploy, pretensioner means the elapsed time from crash time zero to the deployment command for the safety belt pretensioner (for both driver and front passenger). | Yes | Mandatory if equipped |  |  |  | [OICA - Not required for VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **29** | Seat track position switch, foremost, status, driver.(Part 563) | Seat track position switch, foremost, status means the status of the switch that is installed to detect whether the seat is moved to a forward position. | CN – Yes if format fixedJP/DE/EC/US - Yes | Mandatory if equipped and used for deployment decision | Work on format to address CN concerns | US either step 1 or 2EC step 1CN Step2 |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **30** | Seat track position switch, foremost, status, front passenger.(Part 563) | Seat track position switch, foremost, status means the status of the switch that is installed to detect whether the seat is moved to a forward position. | CN – Yes if format fixedJP/DE/EC/US - Yes | Mandatory if equipped and used for deployment decision | Work on format to address CN concerns | US either step 1 or 2EC step 1CN Step2 |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **31** | Occupant size classification, driver.(Part 563) | Occupant size classification means, for front passenger, the classification of an occupant as an adult and not a child, and for the driver, the classification of the driver as not being of small stature. | CN – not high value – can be directly obtained in crash investigation.Does not make sense for driver (who is not a child)EC of value if classification sensors present (EC to consider position further) | Part 563 – if recorded | EC thinks concept has value but may need to consider format to address ways to make more useful. |  |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **32** | Occupant size classification, front passenger.(Part 563) | Occupant size classification means, for front passenger, the classification of an occupant as an adult and not a child, and for the driver, the classification of the driver as not being of small stature. | See above | Part 563 – if recorded | See above |  |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **33** | Occupant position classification, driver.(Part 563) | Occupant position classification means the classification indicating that the seating posture of a front outboard occupant (both driver and front passenger) is determined as being out-of-position.Most vehicles currently not using this technology | EC/DE Yes | ~~Part 563 – if recorded~~ |  | DE/EC Step 2 |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **34** | Occupant position classification, front passenger.(Part 563) | Occupant position classification means the classification indicating that the seating posture of a front outboard occupant (both driver and front passenger) is determined as being out-of-position.Most vehicles currently not using this technology | EC/DE Yes | ~~Part 563 – if recorded~~ |  | DE/EC Step 2 |  | [OICA - Not required for VRU Triggered Events] | -1.0 sec | N/A | Yes or No | N/A | Yes or No | Seat |
| **35** | Speed, vehicle indicated(Part 563) | Speed, vehicle indicated means the vehicle speed indicated by a manufacturer-designated subsystem designed to indicate the vehicle's ground travel speed during vehicle operation. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | -5.0 to 0 sec. | 2 | 0 km/h to 200 km/h | +/- 1 km/h | 1 km/h | Vehicle |
| **36** | Engine throttle, Percent full(Part 563) either #37 or #38 | Percentage ratio of the engine throttle opening. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | -5.0 to 0 sec. | 2 | 0 to 100 % | +/- 5 % | 1% | Vehicle |
| **37** | Accelerator control (pedal) position, Percent Full | Engine throttle, percent full means the driver-requested acceleration as measured by the throttle position sensor on the accelerator control compared to the fully-depressed position.] | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | -5.0 to 0 second relative to time zero | 2 | 0 to 100 % | +/- 5 % | 1% | Vehicle |
| **38** | Service brake, on/off(Part 563) | Service brake, on and off means the status of the device that is installed in or connected to the brake pedal system to detect whether the pedal was pressed. The device can include the brake pedal switch or other driver-operated service brake control. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | -5.0 to 0 sec | 2 | On and off | N/A | On and off | Brake system |
| **39** | Ignition cycle, crash(Part 563) | Ignition cycle, crash means the number (count) of power cycles applied to the recording device at the time when the crash event occurred since the first use of the EDR. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | -1.0 sec. | N/A | 0 to 60,000 | +/- 1 cycle | 1 cycle | Vehicle |
| **40** | Ignition cycle, download(Part 563) | Ignition cycle download means the number (count) of power cycles applied to the recording device at the time when the data was downloaded since the first use of the EDR. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | At time of download | N/A | 0 to 60,000 | +/- 1 cycle | 1 cycle | Vehicle |
| **41** | Frontal air bag warning lamp, on/off(Part 563) | Front air bag warning lamp status means air-bag tell-tale as described by UN Regulation No. 121 Symbol No. 22 and the tell-tale is active or not active. The status of an indicator in the instrument panel that provides the information to the driver of the existence of an occupant/pedestrian protection system malfunction, when lit.  | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for VRU Triggered Events but record VRU warning] | -1.0 sec | N/A | On and Off | N/A | On and Off | Driver Information |
| **42** | 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.(Part 563) | The elapsed time since the beginning of the event (time zero) until the deployment command was made.  | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **43** | 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, front passenger.(Part 563) | The elapsed time since the beginning of the event (time zero) until the deployment command was made.  | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for R/O and VRU Triggered Events] | Event | N/A | 0 to 250 ms | +/-2 ms | 1 ms | Restraints |
| **44** | Multi-event, number of events (1,2)(Part 563) | Multi-event crash means the occurrence of 2 events, the first and last of which begin not more than 5 seconds apart. | ? | Part 563 – MandatoryCN does not want this data element as mandatory |  |  |  | [OICA - Not required for VRU Triggered Events] | Event | N/A | 1 or 2 | N/A | 1 or 2 | Event |
| **45** | Time from event X to Y(Part 563) | Time from event 1 to 2 means the elapsed time from time zero of the first event to time zero of the second event. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 | [OICA - Not required for VRU Triggered Events] | As needed | N/A | 0 to 5.0 sec | ± 0.1 sec | 0.1 sec | Event |
| **46** | Complete file recorded (yes, no) | Status of whether or not a complete set of static and time series data, up to 300 ms post time zero, was successfully recorded and stored in the ECU. | Yes | Part 563 - Mandatory | Yes | Step 1 | Phase #1 - 2022 |  | Following other data | N/A | Yes or No | N/A | Yes or No | File |
| **47** | Safety belt status, rear passengers | Seat belt buckle switch for the rear passengers (left, right, middle) | YesCN needs more time to discuss | Mandatory if equipped in seating position |  | Step 1 | Phase #2 |  |  |  |  |  |  |  |
| **48** | Horn | Operating status of the horn. |  |  |  |  |  |  |  |  |  |  |  |  |
| **49** | Turn Indicator status | Operating status of the turning indicator. |  |  |  |  |  |  |  |  |  |  |  |  |
| **50** | Hazard Indicator Status | Operating status of the hazard indicator. |  |  |  |  |  |  |  |  |  |  |  |  |
| **51** | Main beam   | Operating status of the main headlamp beam.   |  |  |  |  |  |  |  |  |  |  |  |  |
| **52** | Dip beam   | Operating status of the dip headlamp beam.   |  |  |  |  |  |  |  |  |  |  |  |  |
| **53** | Advanced adaptive front headlight Status | Operating status of the adaptive front headlamp system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **54** | Brake lights Status | Operating status of the brake lights. |  |  |  |  |  |  |  |  |  |  |  |  |
| **55** | Warning Light/ Beacon Light | Operating status of the warning/beacon light |  |  |  |  |  |  |  |  |  |  |  |  |
| **56** | Tyre Pressure  |  Tyre pressure, status indicated |  |  |  |  |  |  |  |  |  |  |  |  |
| **57** | Tyre Pressure Monitoring System (TPMS) Warning Lamp Status  | The status of the indicator in the instrument panel that provides the information to the driver when the on-board tire pressure monitoring system has detected that the tire pressure in one or more tire(s) is low. |  |  |  |  |  |  |  |  |  |  |  |  |
| **58** | Parking Brake Status | Status of the parking brake. |  |  |  |  |  |  |  |  |  |  |  |  |
| **59** | Brake Pedal Position | Indicator of brake pedal position within the range from not depressed to fully-depressed.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **60** | Brake Warning Indicator Status | The displayed status of the brake warning system.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **61** | Brake System Internal Pressure | Indicator of applied brake (master cylinder side). Pressure of the master cylinder |  |  |  |  |  |  |  |  |  |  |  |  |
| **62** | Braking Request | Application of the brake system by the driver or vehicle. |  |  |  |  |  |  |  |  |  |  |  |  |
| **63** | Gear Position | The operative transmission gear. |  |  |  |  |  |  |  |  |  |  |  |  |
| **64** | Gear Selection Status | The driver selected transmission gear (shift lever) position |  |  |  |  |  |  |  |  |  |  |  |  |
| **65** | Propulsion Source Torque | Torque value at the propulsion source output shaft. |  |  |  |  |  |  |  |  |  |  |  |  |
| **66** | Ambient Temperature | The estimated exterior ambient air temperature as measured by the vehicle system.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **67** | Front Wiper Status  | Operating status of the front wiper system.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **68** | Vehicle Identification Number (VIN) | The Vehicle Identification Number (VIN), assigned by the vehicle manufacturer.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **69** | Roll Rate  | Change in angle of the vehicle about its X-axis prior to and during an event. [either roll angle or roll rate must be recorded] | Other/EC YesCN yes - only need for roll events – need more work on format | Mandatory if equipped |  | US - EC needs either Roll rate or roll angle in step 1JP discuss for Step 2 |  |  |  |  |  |  |  |  |
| Change of roll angle. |
| **70** | Roll over detection | Operating status of the roll over detection. |  |  |  |  |  |  |  |  |  |  |  |  |
| **71** | Yaw Angle | Angle of the vehicle about its Z-axis (relative to initial vehicle orientation) prior to an event.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **72** | Yaw Rate | Change in (yaw) angle of the vehicle about its Z-axis prior to an event  |  |  |  |  |  |  |  |  |  |  |  |  |
| **73** | Traction Control Status | Operating status of traction control system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **74** | Latitude (GPS) | Latitude of the vehicle at the beginning of an event. Satellite Position Information |  |  |  |  |  |  |  |  |  |  |  |  |
| **75** | Longitude (GPS) | Longitude of the vehicle at the beginning of an event. Satellite Position Information |  |  |  |  |  |  |  |  |  |  |  |  |
| **76** | AEBS status | Operating status of the Advanced Emergency Braking System (AEBS).  |  |  |  |  |  |  |  |  |  |  |  |  |
| **77** | Steering Assist Function status | Operating status of the Steering Assist Function. |  |  |  |  |  |  |  |  |  |  |  |  |
| **78** | Emergency Call System status  |  Operating status of the eCall system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **79** | Intelligent Speed Assistance (ISA) Status  | Operating status of ISA  |  |  |  |  |  |  |  |  |  |  |  |  |
| **80** | Intelligent Speed Assistance (ISA) road speed limit | Speed limit recorded by the ISA system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **81** | Traffic Sign Recognition  | Operating status of the traffic sign recognition system |  |  |  |  |  |  |  |  |  |  |  |  |
| **82** | Cruise Control System | Operating status of the cruise control system.(Driving Automation system level 0) |  |  |  |  |  |  |  |  |  |  |  |  |
| **83** | Adaptive Cruise Control Status (driving automation system level 1) | Operating status of ACC. |  |  |  |  |  |  |  |  |  |  |  |  |
| **84** | Blind Spot Monitoring Status | Operating status of the side blind spot system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **85** | Lane Departure Warning Status | Operating status of the Lane Departure Warning system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **86** | Lane Keep Assist Status | Operating status of the Lane Keep system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **87** | Emergency Lane Keeping Status | Operating status of the Emergency Lane Keeping system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **88** | Lane Centering Assist | Operating status of the lane centering system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **89** | Forward Collision Warning Status | Operating status of the forward collision warning system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **90** | Emergency Stop Signal Status | Operating status of the Emergency Stop Signal system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **91** | Multi collision brake | Operating status of the multi collision brake system.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **92** | Rear Cross-traffic Collision Warning Status | Operating status of the rear cross-traffic collision warning system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **93** | Reversing Detection System Status | Operating status of the Reversing Detection System.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **94** | Advanced Driver Distraction Warning Status | Operating status of the Advanced Driver Distraction Warning system.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **95** | Driver Drowsiness and Attention Warning Status | Operating status of the Driver Drowsiness and Attention Warning system. Driver model, driver monitoring |  |  |  |  |  |  |  |  |  |  |  |  |
| **96** | Alcohol Interlock Status | Operating status of the Alcohol Interlock system |  |  |  |  |  |  |  |  |  |  |  |  |
| **97** | Parking Assist Status | Operating status of the parking assist system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **98** | Rear AEBS Status | Operating status of the rear automatic emergency braking system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **99** | Partial Driving Operating Status (driving automation system level 2) | Operating status of the partial driving automation feature. |  |  |  |  |  |  |  |  |  |  |  |  |
| **100** | ADAS Software version | A means to identify the software version of any given ADAS systemSoftware Versions[ECU software part number] |  |  |  |  |  |  |  |  |  |  |  |  |
| **101** | Automated Driving System - Change in Status | Time stamp for a change in status of the automated driving system.Operating mode of the ADS. |  |  |  |  |  |  |  |  |  |  |  |  |
| **102** | Automated Driving System - Transition Demand | Time stamp for a transition demand of the automated driving system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **103** | Automated Driving System - Minimal Risk Maneuver/Failure Mitigation Strategy Activated | Time stamp for a minimal risk maneuver engagement the automated driving system / Vehicle mode if Dynamic Driving Task (DDT) fallback is not performed. |  |  |  |  |  |  |  |  |  |  |  |  |
| **104** | Automated Driving System – Override/ADS - Fallback-Ready User Intervention | Time stamp for a driver override of the automated driving system/Flag to indicate if Fallback-Ready User has intervened or not.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **105** | Steering Input Requested | The vehicle -system-requested steering input. |  |  |  |  |  |  |  |  |  |  |  |  |
| **106** | Occupant/Pedestrian protection device deployment Status.  |  Status of each occupant/pedestrian protection device. Each vehicle occupant/pedestrian protection system device that is reported should be reported independently. |  |  |  |  |  |  |  |  |  |  |  |  |
| **107** | Occupant Protection Pressure Sensor  | This parameter reflects the feedback from a pressure sensor converted to mbars. In the case of multiple sensor data, this parameter is for sensors 1 to “n” number of sensors.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **108** | Occupant Protection Pressure Rate of Change | This parameter is the pressure rate of change relative to rest. |  |  |  |  |  |  |  |  |  |  |  |  |
| **109** | Occupant/Pedestrian protection device deployment time. | Time elapsed since the beginning of the event (Time zero) until the deployment command was made. |  |  |  |  |  |  |  |  |  |  |  |  |
| **110** | Pedestrian protection device Warning lamp. |  The status of an indicator in the instrument panel that provides the information to the driver of the existence of an pedestrian protection system malfunction, when lit.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **111** | Pedestrian protection device System Warning lamp On Time. | The total accumulated amount of time the occupant/pedestrian protection system warning lamp indicator in the instrument panel has been illuminated. |  |  |  |  |  |  |  |  |  |  |  |  |
| **112** | Number of cycles Pedestrian protection device System Warning lamp has been on. |  The number of ignition/run cycles the pedestrian protection system warning lamp indicator in the instrument panel has been illuminated. |  |  |  |  |  |  |  |  |  |  |  |  |
| **113** | Pedestrian Protection Acceleration |  The vector acceleration of a point in the vehicle. |  |  |  |  |  |  |  |  |  |  |  |  |
| **114** | Pedestrian Protection Pressure Sensor |  This parameter reflects the feedback from a pressure sensor converted to mbars. In the case of multiple sensor data, this parameter is for sensors 1 to “n” number of sensors. |  |  |  |  |  |  |  |  |  |  |  |  |
| **115** | Pedestrian Protection Pressure Rate of Change |  This parameter is the pressure rate of change relative to rest. |  |  |  |  |  |  |  |  |  |  |  |  |
| **116** | Occupant protection device Warning lamp. |  The status of an indicator in the instrument panel that provides the information to the driver of the existence of an occupant protection system malfunction, when lit.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **117** | Number of Cycles Occupant Protection System Warning Lamp On Time |  The total accumulated amount of time the occupant protection system warning lamp indicator in the instrument panel has been illuminated.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **118** | Pedestrian and cyclist collision warning system.  | Operating status of the pedestrian and cyclist collision warning system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **119** | Pre-Safe Systems |   |  |  |  |  |  |  |  |  |  |  |  |  |
| **120** | Accident Year  | Accident Date - YearTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **121** | Accident Month  | Accident Date - MonthTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **122** | Accident Day  | Accident Date - DayTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **123** | Accident Hour  | Accident Time - HourTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **124** | Accident Minute  | Accident Time - MinuteTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **125** | Accident Second  | Accident Time - SecondTrigger Source (Sensor/Control unit/Manual), Date, Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **126** | Download Year  | Accident Date - YearDownload Date Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **127** | Download Month  | Accident Date - MonthDownload Date Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **128** | Download Day  | Accident Date - DayDownload Date Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **129** | Download Hour  | Accident Time - HourDownload Date Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **130** | Download Minute | Accident Time - Minute |  |  |  |  |  |  |  |  |  |  |  |  |
| **131** | Download Second  | Accident Time - SecondDownload Date Time |  |  |  |  |  |  |  |  |  |  |  |  |
| **132** | Highly accurate position Information  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **133** | Images Outside | Images of the environment outside of the vehicle |  |  |  |  |  |  |  |  |  |  |  |  |
| **134** | Surrounding Objects  | Identification, classification of surrounding objects. |  |  |  |  |  |  |  |  |  |  |  |  |
| **135** | Other ADAS |   |  |  |  |  |  |  |  |  |  |  |  |  |
| **136** | Domain / street type | Identification, classification of road type |  |  |  |  |  |  |  |  |  |  |  |  |
| **137** | Driving Profile Status | Driving profile status |  |  |  |  |  |  |  |  |  |  |  |  |
| **138** | V2X warnings type | Classification of V2X warning.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **139** | V2X warnings time | Time of V2X warning |  |  |  |  |  |  |  |  |  |  |  |  |
| **140** | Door lock | Status of the door locks |  |  |  |  |  |  |  |  |  |  |  |  |
| **141** | List of Error codes of active and passive safety systems | Error codes. |  |  |  |  |  |  |  |  |  |  |  |  |
| **142** | Connected functions | Operating status of the connectivity systems. |  |  |  |  |  |  |  |  |  |  |  |  |
| **143** | Cyber attack | Identification of a cyber attack.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **144** | Trigger type | Type of trigger to start EDR recording.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **145** | State of battery charge |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **146** | State of battery health |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **147** | State of battery function |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **148** | Brake override system | Operating status of the brake override system |  |  |  |  |  |  |  |  |  |  |  |  |
| **149** | Clipping flag |   |  |  |  |  |  |  |  |  |  |  |  |  |
| **150** | ECU Hardware number | Part number(s) of the ECU(s). |  |  |  |  |  |  |  |  |  |  |  |  |
| **151** | ECU(s) Software Number(s)  | Software part number(s) of the ECU(s). |  |  |  |  |  |  |  |  |  |  |  |  |
| **152** | ECU(s) Serial Number(s)  | Serial number of the ECU(s).  |  |  |  |  |  |  |  |  |  |  |  |  |
| **153** | ECU(s) Power Applied | Value of the voltage applied to (present at) the ECU. |  |  |  |  |  |  |  |  |  |  |  |  |
| **154** | ECU(s) Life Timer at event | ECU(s) cumulative power on time. |  |  |  |  |  |  |  |  |  |  |  |  |
| **155** | ECU(s) Life Timer at imaging | ECU(s) cumulative power on time. |  |  |  |  |  |  |  |  |  |  |  |  |
| **156** | Peripheral Acceleration | The acceleration of a point in the vehicle. The SAE J211-1 sign convention should be used to define orientation of the accelerometer |  |  |  |  |  |  |  |  |  |  |  |  |
| **157** | Electronic Stop Start | Operating status of the electronic stop start system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **158** | Event Type | Non-deployment indicates that the algorithm wakeup or threshold conditions were achieved but no device was commanded while Deployment indicates a deployment threshold has been satisfied. |  |  |  |  |  |  |  |  |  |  |  |  |
| **159** | Ignition Button Counter per key cycle  | Number of times the ignition button has been depressed per key cycle. |  |  |  |  |  |  |  |  |  |  |  |  |
| **160** | Powertrain Control Module Malfunction Indicator Status (PCM MIL Status)  | Status of PCM MIL lamp indicating that fault code(s) are either active or stored in the powertrain control module.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **161** | Manifold Absolute Pressure (MAP) | Mean gas absolute static pressure in the engine induction manifold.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **162** | Mass Airflow | Measurement of air flow entering the throttle body. |  |  |  |  |  |  |  |  |  |  |  |  |
| **163** | Minutes in Operation at Event | Number of total minutes when the ignition has been in the ON/RUN mode for the current ignition cycle  |  |  |  |  |  |  |  |  |  |  |  |  |
| **164** | Sensor Design Range Exceeded, XX | Indicates the point in time at which a sensor first reaches the maximum value of the specified range of that sensor.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **165** | Pre-event Synchronization Timer | Time from last pre-crash data sample to time zero.  |  |  |  |  |  |  |  |  |  |  |  |  |
| **166** | Vehicle Mileage | Odometer reading of the vehicle at the beginning of the event. |  |  |  |  |  |  |  |  |  |  |  |  |
| **167** | Rollover Restraint System Disabled Indicator Status | The displayed suppression status of the rollover restraint system. |  |  |  |  |  |  |  |  |  |  |  |  |
| **168** | EDR retrieval tool software status | The software version of the EDR retrieval tool. |  |  |  |  |  |  |  |  |  |  |  |  |
| **169** | Soft object collisions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **170** | ADS Emergency Maneuver | Time points of activation and deactivation |  |  |  |  |  |  |  |  |  |  |  |  |
| **171** | Safety belt status mid-position front | Analogue to the driver/co-driver |  |  |  |  |  |  |  |  |  |  |  |  |
| **172** | Far side impact airbag | Airbag between driver and co-driver. All levels are to be collected as for the other airbags |  |  |  |  |  |  |  |  |  |  |  |  |
| **173** | Belt force limiter | Activation for each seat (inc rear) |  |  |  |  |  |  |  |  |  |  |  |  |
| **174** | Elevation Profile | To understand whether the road elevation profile might have had an influence |  |  |  |  |  |  |  |  |  |  |  |  |
| **175** | High Voltage | If the vehicle gains its primary energy from a high voltage battery – this voltage shall be stored |  |  |  |  |  |  |  |  |  |  |  |  |
| **176** | Suspension settings | Suspension settings |  |  |  |  |  |  |  |  |  |  |  |  |
| **177** | Rotational velocity of each wheel | Rotational velocity of each wheel |  |  |  |  |  |  |  |  |  |  |  |  |
| **178** | Steering output of each wheel | Steering output of each wheel for cases of steering by wire |  |  |  |  |  |  |  |  |  |  |  |  |
| **179** | Key on seconds | Steering output |  |  |  |  |  |  |  |  |  |  |  |  |
| **180** | Vehicle pitch angle | Angle of the vehicle about its Y-axis (relative to initial vehicle orientation) prior to and during an event |  |  |  |  |  |  |  |  |  |  |  |  |
| **181** | Position of the vehicle on the road | [to be defined] |  |  |  |  |  |  |  |  |  |  |  |  |

1. “If recorded” means if the data is recorded in non-volatile memory for the purpose of subsequent downloading. [↑](#footnote-ref-1)
2. Pre-crash data and crash data are asynchronous. The sample time accuracy requirement for pre-crash time is -0.1 to 1.0 sec (e.g., T = -1 would need to occur between -1.1 and 0 seconds.) [↑](#footnote-ref-2)
3. Accuracy requirement only applies within the range of the physical sensor. If measurements captured by a sensor exceed the design range of the sensor, the reported element shall indicate when the measurement first exceeded the design range of the sensor. [↑](#footnote-ref-3)