

## BMW CARDATA TELEMATICS DATA CATALOGUE.

BMW CarData provides relevant telematics data, which is transmitted by the vehicles to the BMW Group via BMW ConnectedDrive services, and stored there. This includes values such as the mileage. This BMW CarData telematics data catalogue explains all the available vehicle data that is relevant for the use of BMW CarData, divided into the respective individual categories. The quantity and type of telematics data may vary depending on the vehicle and drive type, the make, model and any special accessories.

### BASIC DATA OF A VEHICLE.

CarData Element	Description
Activation status of the installed SIM card	This value indicates whether the SIM card installed in the vehicle is activated.
Basic vehicle data	This value indicates a list of basic vehicle data, e.g. vehicle brand and full model name.
High-voltage battery size	This value indicates the size of the installed high-voltage battery.
List of optional equipment	This value indicates a list with information about the optional equipment of the vehicle.
Maximum energy content of the high-voltage battery	This value indicates the maximum available energy content of the high-voltage battery.
Vehicle image	This value provides an image of the vehicle as a PNG file.

### DATA ON THE STATUS OF A VEHICLE

CarData Element	Description
AdBlue level	Current filling level of the AdBlue tank. Currently resolution is only 10%. The values can reach up to 120% - this means that the tank was filled above the recommended maximum level. The reserve is at 20%.
Ambient air temperature	Ambient air temperature
AntiTheftAlarm activation reason	Reason of the last anti theft alarm.
AntiTheftAlarm activation time	Timestamp of the last alarm activation time. The value comes without timezone information.
AntiTheftAlarm arm status	Anti theft alarm. Arming status.
AntiTheftAlarm is on	Anti theft alarm is active (car is honking).

CarData Element	Description
Aux battery last service type	Last service type for battery. BATTERY_REPLACED BMW battery was replaced and registered at BMW Workshop, BATTERY_REPLACEMENT_REGISTERED battery was most probably replaced by a 3rd party battery (information is submitted by customer), BATTERY_REPLACEMENT_DETECTED battery was most probably replaced by a 3rd party battery and not yet registered (information is detected by vehicle data).
Aux steering battery last service mileage	Mileage (Odometer, TravelledDistance) at the last steering battery service at the workshop.
Aux steering battery last service type	Last service type for steering battery. BATTERY_REPLACED BMW battery was replaced and registered at BMW Workshop, BATTERY_REPLACEMENT_REGISTERED battery was most probably replaced by a 3rd party battery (information is submitted by customer), BATTERY_REPLACEMENT_DETECTED battery was most probably replaced by a 3rd party battery and not yet registered (information is detected by vehicle data).
Aux support battery last service type	Last service type for support battery. BATTERY_REPLACED BMW battery was replaced and registered at BMW Workshop, BATTERY_REPLACEMENT_REGISTERED battery was most probably replaced by a 3rd party battery (information is submitted by customer), BATTERY_REPLACEMENT_DETECTED battery was most probably replaced by a 3rd party battery and not yet registered (information is detected by vehicle data).
Availability of teleservices	This value indicates whether teleservices are available for this vehicle.
Battery limited start capability	Battery charging status. If true then a critical state of charge has been reached and the start capability of the vehicle is limited.
Cellular registration status	Indicates the status of the network registration.
Charging profile	The charging profile provides information about the charging mode most recently selected for your vehicle. Where appropriate, CarData element may also be used to display individual attributes in cars without an electric drive, e.g. the preconditioning settings.
Convertible roof status	Convertible Roof Retractable State. BMW Mini vehicles have the additionally option to only open the folding roof. This signal represents the Mini folding roof state. It should be read together with the convertible roof state as well, see Vehicle.Cabin.Convertible.RoofStatus.
Coolant temperature	The value indicates the current coolant temperature in degrees centigrade or Fahrenheit at the time of data collection.
Date and time in vehicle	These values indicate the time shown in the vehicle at the time of recording the data.
Date of next inspection	This value indicates when the next inspection is due. A date will be shown respectively, for example 30.09.2018 23:00 UTC or 09.30.2018 23:00 UTC.

CarData Element	Description
Deep Sleep Mode	This value indicates whether Deep Sleep Mode is activated ("true") or deactivated ("false") at the time of the request. If the customer has activated Deep Sleep Mode, the vehicle can be parked for a longer time without charging the battery. In this mode, most consumers are deactivated to save energy. The customer can end Deep Sleep Mode by deactivating it or starting the vehicle.
Default front driver seat cooling	Default settings for front driver seat cooling/ventilation of the seat for climate preconditioning.
Default front driver seat heating	Default settings for front driver seat heating of the seat for climate preconditioning.
Default front passenger seat cooling	Default settings for front passenger seat cooling/ventilation of the seat for climate preconditioning.
Default front passenger seat heating	Default settings for front passenger seat heating of the seat for climate preconditioning.
Default rear driver seat cooling	Default settings for rear driver seat cooling/ventilation of the seat for climate preconditioning.
Default rear driver seat heating	Default settings for rear driver seat heating of the seat for climate preconditioning.
Default rear passenger seat cooling	Default settings for rear passenger seat cooling/ventilation of the seat for climate preconditioning.
Default rear passenger seat heating	Default settings for rear passenger seat heating of the seat for climate preconditioning.
Default steering wheel heating	Default settings for steering wheel heating for climate preconditioning.
Default third row driver seat cooling	Default settings for third row driver seat cooling/ventilation of the seat for climate preconditioning.
Default third row driver seat heating	Default settings for third row driver seat heating of the seat for climate preconditioning.
Default third row passenger seat cooling	Default settings for third row passenger seat cooling/ventilation of the seat for climate preconditioning.
Default third row passenger seat heating	Default settings for third row passenger seat heating of the seat for climate preconditioning.
Direct start target temp	DirectStart settings for target temperature for climate preconditioning.
Display unit of instrument panel in vehicle	This value indicates the units (kilometres or miles) in which distances are indicated on the vehicle instrument panel.
Distance threshold for service information	The static value indicated is stored in the vehicle and indicates the first time that the customer receives a mileage-related message to inform him that the vehicle will soon be due for a service. It is given in kilometres or miles (for example 2000 km or 1243 mi).
Distance to navigation destination	This value indicates the distance to the active navigation destination in kilometres or miles at the time of data collection. The values range from 0 km to 100000 km or from 0mi to 62137mi.

CarData Element	Description
Distance to the next service	This value indicates how many kilometres or miles remain before the next service at the time of recording the data. Note: This value is calculated based on the individual CBS scopes and is not determined with every data transfer. For more details, see "Condition Based Service".
Door status	This value indicates the status of the doors, but is only sporadically recorded and transmitted. Note: It is recommended to use only the individual door status instead of this value.
Exterior mirror heating active	Current status of the exterior mirror heating.
Fault memory	The fault memory provides information about potential errors or technical faults in the vehicle. This information is intended for workshops. Customer-relevant errors that are displayed to the driver in the vehicle can be found under the CarData Element "Check control messages". Details about this are documented in the operating manual of the vehicle.
Front driver door position	Driver-side front door opening position in percent. 0% represents fully closed and 100% represents fully opened.
Front driver seat cooling	Front driver seat Cooling. 0 = off. +100 = max cold.
Front driver seat cooling capability	Capability of front driver seat cooling.
Front driver seat direct cool	DirectStart settings for front driver seat cooling/ventilation of the seat for climate preconditioning.
Front driver seat direct heat	DirectStart settings for front driver seat heating of the seat for climate preconditioning.
Front driver seat heating	Front driver seat heating. 0 = off. +100 = max heat.
Front driver seat occupied	Does the front driver seat have a passenger in it.
Front driver seat ventilation	Capability of front driver seat ventilation.
Front driver window position	Driver-side front window opening position in percent. 0% represents fully closed and 100% represents fully opened.
Front passenger direct cool	DirectStart settings for front passenger seat cooling/ventilation of the seat for climate preconditioning.
Front passenger direct heat	DirectStart settings for front passenger seat heating of the seat for climate preconditioning.
Front passenger door position	Passenger-side front door opening position in percent. 0% represents fully closed and 100% represents fully opened.
Front passenger seat cooling	Front passenger seat Cooling. 0 = off. +100 = max cold.
Front passenger seat cooling capability	Capability of front passenger seat cooling.
Front passenger seat heating	Front passenger seat heating. 0 = off. +100 = max heat.
Front passenger seat occupied	Does the front passenger seat have a passenger in it.

CarData Element	Description
Front passenger seat ventilation	Capability of front passenger seat ventilation.
Front passenger window position	Passenger-side front window opening position in percent. 0% represents fully closed and 100% represents fully opened.
Health status of the battery	<p>This value indicates the health status of the battery.</p> <p>200 = Adequate health status of the battery  140 = Limited – Battery replacement recommended  110 = Inadequate – Battery replacement required  80 = Degraded – Battery replacement urgently required</p>
HVAC air purification status	Actual status of the air purification.
HVAC temperature step	This configuration specifies what temperature increment/decrement should be applied in the HMI if the plus/minus button for the temperature is clicked. This configuration applies possibly with different values for representation in Celsius and Fahrenheit.
Intake manifold pressure	Manifold air pressure possibly boosted using forced induction.
Low-voltage battery	The value indicates the state of charge of the low-voltage battery in percent measured at the time of data collection.
Low-voltage battery plausibility	This value indicates whether the measured state of charge of the low-voltage battery in percent is plausible.
Maximum number of POIs stored in the navigation system	This value indicates how many POIs (points of interest) can be stored in the navigation system.
Measured tyre pressure, front left	This value indicates the measured tyre pressure on the front left in kPa
Measured tyre pressure, front right	This value indicates the measured tyre pressure on the front right in kPa.
Measured tyre pressure, rear left	This value indicates the measured tyre pressure on the rear left in kPa.
Measured tyre pressure, rear right	This value indicates the measured tyre pressure on the rear right in kPa.
Mileage	The value indicates the current mileage at the time of data collection.
Mobile phone connection	This value indicates whether a mobile phone was linked to the vehicle at the time of data collection or whether the connection status is unknown.
Motion status of the vehicle	This value indicates whether the vehicle was in motion at the time of data collection.
Navigation destination – latitude	This value indicates the coordinate of the active navigation destination – latitude at the time of data collection in billionths of a second.
Navigation destination – longitude	This value indicates the coordinate of the active navigation destination – longitude at the time of data collection in billionths of a second.
Necessity for recharging of the battery	<p>This value indicates whether recharging of the battery is necessary.</p> <p>1 = Recharging necessary  0 = Recharging not necessary</p>

CarData Element	Description
Number of CBS reports	The value specifies the maximum number of service notifications transmitted from the vehicle to BMW via telematics. The actual number of service notifications transmitted (see separate CBS key) varies depending on how the vehicle is used and whether relevant thresholds have been reached. Note: Not all Condition Based service messages which occur in the vehicle are also transferred.
Number of free POI spaces in navigation system	This value indicates how many POIs (points of interest) are still open in the navigation system.
Orientation of the vehicle	This value indicates the orientation of the vehicle in degrees at the time of data collection. If the value is 180, the vehicle is pointing directly south. If the value is 0, the vehicle is pointing directly north. The values thus range from 0 to 359. The determined orientation of the vehicle may differ from its actual orientation due to inaccuracies in the GPS positioning.
Permission to use the engine for pre-conditioning	This value indicated whether permission was granted to use the engine for the pre-conditioning of the stationary air conditioning at the time of data collection. This is determined by the customer.
Position of sunroof	The value indicates the current position of the sunroof (if the vehicle has one) in centimetres or inches at the time of data collection. The values range from 0cm (closed) to 200 cm (open) or from 0in (closed) to 79 in (open).
Pre-conditioning status of the stationary air conditioning	Current status of the pre-conditioning of the stationary air conditioning before commencing travel at the time of data collection. The value "Inactive" may be transmitted if the pre-conditioning has not been booked or if the pre-conditioning is not active at the time of data collection.
Preconditioning clearance active	Indicator whether there is a clearance from high voltage power management for preconditioning.
Preconditioning comfort state	Status of the comfort state of the climate preconditioning.
Preconditioning progress	Progress of the currently active climate preconditioning in percent.
Preconditioning remaining time	Remaining runtime of climate preconditioning in seconds.
Preferred service partner	Indicates the current service partner allocation of the vehicle.
Rear defrost active	Current status of the rear window heating.
Rear driver direct cool	DirectStart settings for rear driver seat cooling/ventilation of the seat for climate preconditioning.
Rear driver direct heat	DirectStart settings for rear driver seat heating of the seat for climate preconditioning.
Rear driver door position	Driver-side rear door opening position in percent. 0% represents fully closed and 100% represents fully opened.
Rear driver seat cooling	Rear driver seat Cooling. 0 = off. +100 = max cold.
Rear driver seat cooling capability	Capability of rear driver seat cooling.
Rear driver seat heating	Rear driver seat heating. 0 = off. +100 = max heat.

CarData Element	Description
Rear driver seat ventilation	Capability of rear driver seat ventilation.
Rear driver window position	Driver-side rear window opening position in percent. 0% represents fully closed and 100% represents fully opened.
Rear passenger direct cool	DirectStart settings for rear passenger seat cooling/ventilation of the seat for climate preconditioning.
Rear passenger direct heat	DirectStart settings for rear passenger seat heating of the seat for climate preconditioning.
Rear passenger door position	Passenger-side rear door opening position in percent. 0% represents fully closed and 100% represents fully opened.
Rear passenger seat cooling	Rear passenger seat Cooling. 0 = off. +100 = max cold.
Rear passenger seat cooling capability	Capability of rear passenger seat cooling.
Rear passenger seat heating	Rear passenger seat heating. 0 = off. +100 = max heat.
Rear passenger seat ventilation	Capability of rear passenger seat ventilation.
Rear passenger window position	Passenger-side rear window opening position in percent. 0% represents fully closed and 100% represents fully opened.
Rear seat 1 occupied	Does the rear driver seat have a passenger in it.
Rear seat 2 occupied	Does the rear middle seat have a passenger in it.
Rear seat 3 occupied	Does the rear passenger seat have a passenger in it.
Rear window unlocking	This value indicates whether the rear window is unlocked (TRUE) or closed (FALSE).
Reason for not carrying out pre-conditioning of the stationary air conditioning	Reason for not carrying out pre-conditioning of the stationary air conditioning at the time of data collection.
Remaining duration of pre-conditioning	This value indicates the remaining duration for the pre-conditioning of the stationary air conditioning in minutes at the time of data collection. This value may also be transmitted if the pre-conditioning has not been booked or if the pre-conditioning status of the stationary air conditioning is not active ("inactive") at the time of data collection.
Remaining range	This value indicates the remaining range of fuel in kilometres or miles at the time of data collection.
Remote 360 services	Remote360 feature active.
Smart Maintenance: Digital tyre diagnostics	This value contains information about the tyres currently and previously installed on the vehicle. This data is collected by the vehicle and automatically sent according to defined cycles.
Smart Maintenance: Live diagnostics	This value indicates which service requirements have been determined for the vehicle based on the live diagnostics. These are composed of the title, category and current status of the required service. The vehicle collects error data for the service requirements, and automatically sends them according to defined cycles.

CarData Element	Description
State of ignition	This value indicates whether the ignition was on or off at the time of data collection or whether the status is unknown.
Status information about the last transfer of OBFCM* values	This value indicates the status information about the last transfer of OBFCM* values performed in a workshop (i.e. wired). (OK for a valid transfer where the OBFCM values have been updated, ECU_COMMUNICATION_ERROR for errors in collecting data from the control units, VEHICLE_MANIPULATION_DETECTED if vehicle tampering has been detected and MANUFACTURER_EXCLUDED if the vehicle manufacturer is excluded from the OBFCM* collection (e.g. Alpina, Toyota Supra).
Status of boot lid	This value indicates whether the boot lid was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Status of convertible roof	Indicates the current status of the convertible roof at the time of data collection, e.g. whether it was closed (CLOSED), open (OPEN) or – in an emergency – locked (EMERGENCYLOCKED). The following additional status values are possible: CLOSEDSECURED = convertible roof closed, vehicle secured OPENSECURED = convertible roof open, vehicle secured HARDTOPMOUNTED = hard top mounted and closed (removable hard top) INTERMEDIATEPOSITION = convertible roof in intermediate position LOADINGPOSITION = roof is in a position that allows for easy loading of the boot LOADINGPOSITIONIMMEDIATE = roof is in a position that allows for easy loading of the boot
Status of doors	This indicates whether the vehicle's doors were locked (LOCKED) or unlocked (UNLOCKED) at the time of data collection. Other possible values are: SELECTIVELOCKED = vehicle locked with the exception of the left front door (state after a remote service door unlock was first performed) SECURED = vehicle has been secured = all doors locked and alarm system activated
Status of engine (on/off)	This value indicates whether the engine was on or off at the time of data collection or whether the status is unknown.
Status of front left door	This value indicates whether the front left door was closed at the time of data collection (CLOSED) or open (OPEN).
Status of front left window	This value indicates whether the front left window was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Status of front right door	This value indicates whether the front right door was closed at the time of data collection (CLOSED) or open (OPEN).
Status of front right window	This value indicates whether the front right window was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Status of hood	This value indicates whether the vehicle's hood was closed at the time of data collection (CLOSED) or open (OPEN).
Status of lights	This value indicates whether the vehicle light was on or off at the time of data collection or whether the status is unknown.
Status of rear left door	This value indicates whether the rear left door was closed at the time of data collection (CLOSED) or open (OPEN).



CarData Element	Description
Status of rear left window	This value indicates whether the rear left window was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Status of rear right door	This value indicates whether the rear right door was closed at the time of data collection (CLOSED) or open (OPEN).
Status of rear right window	This value indicates whether the rear right window was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Status of sunroof	This value indicates whether the sunroof (if the vehicle has one) was open (OPEN), half-open (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Steering wheel direct heat	DirectStart settings for steering wheel heating for climate preconditioning.
Steering wheel heating	Actual value of the steering wheel heating in percent.
Sunroof overall status	Overall status of the vehicle's sunroof.
Sunroof relative position	Opening state of the sunroof in percent. -100 means full tilt position. 0% represents fully closed and 100% represents fully opened.
Sunshade position	Item position. 0 = Start position 100 = End position.
Tank content	The value indicates the current fuel tank level in litres or gallons at the time of data collection. Depending on the position of the tank float, the specified value may differ by up to 6 litres or 1.6 gallons.
Tank level in %	This value indicates the tank level in percent at the time of data collection.
Target temperature	Default settings for target temperature for climate preconditioning.
Target tyre pressure, front left	This value indicates the target tyre pressure on the front left in kPa.
Target tyre pressure, front right	This value indicates the target tyre pressure on the front right in kPa.
Target tyre pressure, rear left	This value indicates the target tyre pressure on the rear left in kPa.
Target tyre pressure, rear right	This value indicates the target tyre pressure on the rear right in kPa.
Third row driver direct cool	DirectStart settings for third row driver seat cooling/ventilation of the seat for climate preconditioning.
Third row driver direct heat	DirectStart settings for third row driver seat heating of the seat for climate preconditioning.
Third row driver seat cooling	Third row driver seat Cooling. 0 = off. +100 = max cold.
Third row driver seat cooling capability	Capability of third row driver seat cooling.
Third row driver seat heating	Third row driver seat heating. 0 = off. +100 = max heat.
Third row driver seat ventilation	Capability of third row driver seat ventilation.
Third row passenger direct cool	DirectStart settings for third row passenger seat cooling/ventilation of the seat for climate preconditioning.

CarData Element	Description
Third row passenger direct heat	DirectStart settings for third row passenger seat heating of the seat for climate preconditioning.
Third row passenger seat cooling	Third row passenger seat Cooling. 0 = off. +100 = max cold.
Third row passenger seat cooling capability	Capability of third row passenger seat cooling.
Third row passenger seat heating	Third row passenger seat heating. 0 = off. +100 = max heat.
Third row passenger seat ventilation	Capability of third row passenger seat ventilation.
Tilting status of sunroof	This value indicates whether the sunroof (if the vehicle has one) was tilted (OPEN), half-tilted (INTERMEDIATE) or closed (CLOSED) at the time of data collection.
Time threshold for main and exhaust gas inspection	The threshold indicates how many months before the main and exhaust gas inspection is due the service advisor will be notified.
Time threshold for service information	The static value indicated is stored in the vehicle and indicates the first time that the customer receives a message to inform them that the vehicle will soon be due for a service. This is given in weeks (for example 4).
Time to the navigation destination	This value indicates the arrival time at the navigation destination and is given in hours and minutes.
Time zone setting in the vehicle	This value indicates the current setting for the time display in the vehicle at the time of data collection. For example, this may be winter time, summer time, UTC or manual.
Transmission gear	This signal indicates the gear in which the transmission is currently engaged. In the event that a gearshift is in progress, the target gear will be transmitted. The value "NP" indicates a "parking lock error".
Trunk door open status	Trunk door state.
Trunk left door open	Left door of trunk state.
Trunk locked status	Indicated whether the trunk is locked or not.
Trunk lower door open	Lower door of trunk state.
Trunk right door open	Right door of trunk state.
Trunk upper door open	Upper door of trunk state.
Use of engine for pre-conditioning	This value indicates whether the engine was active during pre-conditioning of the stationary air conditioning at the time of data collection. The value "Inactive" may be transmitted if the pre-conditioning has not been booked or if the pre-conditioning is not active at the time of data collection.
Vehicle altitude	This value indicates the height of the vehicle above sea-level at the time of data collection. The value range reaches from -100m to 6000m or from -328ft to 19685ft.

CarData Element	Description
Vehicle position – degree of latitude	This value indicates the degree of latitude at which the vehicle was at the time of data collection. The degree of latitude could range from 0 (at the equator) to a maximum of +90 in the northern hemisphere or respectively -90 in the southern hemisphere. The GPS position is transferred independently of whether the GPS positioning has been activated or deactivated in your vehicle via the settings menu.
Vehicle position – degree of longitude	This value indicates the degree of longitude at which the vehicle was at the time of data collection. The degree of longitude could range from 0 (at the Greenwich meridian / Great Britain) to a maximum of +180 east or respectively -180 west of the meridian. The GPS position is transferred independently of whether the GPS positioning has been activated or deactivated in your vehicle via the settings menu.
Vehicle tracking privacy	Is GPS position tracking enabled in the car.

#### USAGE-BASED VEHICLE DATA.

CarData Element	Description
48V battery state of health	SoH (State of Health) of the 48V Battery that is shown to the customer. Created to fulfill EU Battery Regulation.
Aux battery last service mileage	Mileage (Odometer, TravelledDistance) at the last battery service at the workshop.
Aux battery last service timestamp	Date and Time (UTC) of the last battery service at the workshop.
Aux starter battery last service mileage	Mileage (Odometer, TravelledDistance) at the last starter battery service at the workshop.
Aux starter battery last service timestamp	Date and Time (UTC) of the last starter battery service at the workshop.
Aux starter battery last service type	Last service type for starter battery. BATTERY_REPLACED BMW battery was replaced and registered at BMW Workshop, BATTERY_REPLACEMENT_REGISTERED battery was most probably replaced by a 3rd party battery (information is submitted by customer), BATTERY_REPLACEMENT_DETECTED battery was most probably replaced by a 3rd party battery and not yet registered (information is detected by vehicle data).
Aux steering battery last service timestamp	Date and Time (UTC) of the last steering battery service at the workshop.
Aux support battery last service mileage	Mileage (Odometer, TravelledDistance) at the last support battery service at the workshop.
Aux support battery last service timestamp	Date and Time (UTC) of the last support battery service at the workshop.
Average distance per week	This indicates the average volume of the distance travelled in kilometres or miles per week.

CarData Element	Description
Average distance per week (long-life)	This value indicates the weekly average travelled in kilometres or miles over a period of 2 months.
Battery energy availability parking	Energy availability during parking (information of the flexible energy power management system). The lower the energy level in the vehicle becomes, the greater the degradation of the functions must be to prevent a critical energy state.
Battery minimum temperature	Lowest measured battery temperature during the battery life cycle. This value is set to 127 when the vehicle is produced or the battery is replaced.
Check control messages	The value indicates the last relevant Check Control messages that were displayed in the vehicle and transferred to BMW. Check control monitors functions in the vehicle and notifies the user when there is a fault in the monitored system. A check control message is displayed as a combination of indicator lights or warning lights and text messages on the dashboard, and on the head-up display, if applicable. Note: Not all Check Control messages that are displayed in the vehicle are transferred to BMW.
Condition Based Service	Sensors and special algorithms take into account the operating conditions of the vehicle. CBS uses this to determine the required service. The system hereby adapts the scope of the service to the individual usage profile.
Consent to OBFCM* data transfer to the EU	This value indicates whether the client has consented to the transfer of OBFCM* data to the European Commission.
Learning navigation	Displays the learned navigation recommendations (preferred routes and destinations of the customer).
OBFCM* reference distance during charging mode	This value indicates the distance travelled during charging mode, i.e. PHEV charges the high-voltage battery.
OBFCM* reference distance during electric mode and when the combustion engine is active (PHEV only)	This value indicates the distance travelled during electric mode and when the combustion engine is active.
OBFCM* reference distance during electric mode and when the combustion engine is inactive (PHEV only)	This value indicates the distance travelled during electric mode and when the combustion engine is inactive.
OBFCM* reference distance for measuring the fuel consumption	This value indicates the reference distance for measuring fuel consumption.
OBFCM* total fuel consumption during charging mode (PHEV only)	This value describes the fuel consumed during charging mode, i.e. PHEV charges the high-voltage battery using the combustion engine.
OBFCM* total fuel consumption during operation when the battery is discharged (PHEV only)	This value indicates the amount of fuel consumption when the combustion engine switches on even though the battery is not flat.
Speed range lower	Lower bound of the speed range in km/h. The Range includes the lower bound. Due to privacy reasons some functions are not allowed to transmit the current driving speed and should use the SpeedRange attribute.

CarData Element	Description
Speed range upper	Upper bound of the speed range in km/h. The Range excludes the upper bound. Due to privacy reasons some functions are not allowed to transmit the current driving speed and should use the SpeedRange attribute.
Total fuel consumption according to legal OBFCM* specifications	This value indicates the amount of fuel consumed in litres, measured over the reference distance.

#### DATA REGARDING THE EVENTS OF YOUR VEHICLE.

CarData Element	Description
Assistance Call	This value indicates at what time an "Assistance Call" was performed by the driver.
Automated Driving Assistance Call	This value indicates at what time an "Automated Driving Assistance Call" was initiated by the vehicle. An Automated Driving Assistance Call can be initiated automatically by the vehicle or manually by the driver, to assist the driver in the event of e.g. a medical emergency while using automated systems. The call is typically triggered if the driver does not respond to a request to take over the controls of the vehicle.
Automatic Teleservice Call	This value indicates at what time an Automatic Service Call (ASC) was initiated by the vehicle.
BMW Accident Assistance Call - after accident detection	This value indicates at what time the BMW Accident Assistance call was initiated by the vehicle. The vehicle automatically detects smaller accidents (without deployment of the airbag) and initiates the BMW Accident Assistance call after manual confirmation by the driver.
BMW Accident Assistance Call - triggered manually	This value indicates at what time the BMW Accident Assistance call was manually initiated by the driver.
BMW Roadside Assistance	This value indicates at what time the BMW Roadside Assistance call was manually initiated by the driver.
Concierge Services Call	This value indicates at what time a "Concierge Services Call" was performed by the driver.
Hotline Call	This value indicates at what time a "Hotline Call" was performed by the driver.
Intelligent emergency call - triggered automatically	This value indicates at what time the vehicle automatically initiated an intelligent emergency call due to a detected accident. The intelligent emergency call is forwarded to a BMW call centre, where a rescue action is initiated according to the transferred vehicle data. In exceptional cases, it may not be possible to transfer the intelligent emergency call and the statutory emergency call (eCall) is triggered instead. The vehicle contacts the corresponding control centre directly. In this case, notification is not possible.

CarData Element	Description
Intelligent emergency call - triggered manually	This value indicates at what time an intelligent emergency call was manually initiated by the driver. The intelligent emergency call is forwarded to a BMW call centre, where a rescue action is initiated according to the transferred vehicle data. In exceptional cases, it may not be possible to transfer the intelligent emergency call and the statutory emergency call (eCall) is triggered instead. The vehicle contacts the corresponding control centre directly. In this case, notification is not possible.
Teleservice report	This value indicates at what time the teleservice report call was initiated by the vehicle. The vehicle collects measured values or error data for the teleservice report call, and automatically sends them according to defined cycles.

## ELECTRIC VEHICLE DATA

CarData Element	Description
"Smart Charging" option	This value indicates which "Smart Charging" option is being used to charge with.
AC charging current	This value indicates the maximum charging current for the most recent charging process in ampere (A) (only when charging with alternating current). Values between 0 and 25 are possible. Both the vehicle and charging station could be individually charged with a certain maximum charging current. The value displayed here is the greater of these two figures.
AC charging current limit and selection	The first value indicates whether the charging current used to charge the vehicle is limited.  The second value describes the type of limit (reduced or minimum).
AC charging restriction factor	Response of ac restriction.
AC charging voltage	This value indicates the charging voltage for the most recent charging process (only when charging with alternating current). This value is usually in the region of 230 V. However, charging voltages may range from 0 to 300.
Acoustic limitation of charging process	This value indicates whether charging is limited due to noise emissions.
Activation period for ECO mode during most recent drive	Indicates the length of time for which ECO mode was activated during the most recent drive when data were recorded. The values range from 0 to 100.
Activation period for ECO PLUS mode during most recent drive	Indicates the length of time for which ECO PLUS mode was activated during the most recent drive when data were recorded. The values range from 0 to 100.
Automatic preconditioning status feedback	Current state of toggle switch for automatic battery preconditioning. ON means automatic mode (navigation based) of the predictive thermal management (vWM) is activated. OFF means automatic mode (navigation based) of the predictive thermal management (vWM) is deactivated. TEMP_OFF stands for temporary deactivation for current trip of the automatic predictive thermal management.

CarData Element	Description
Auxiliary user power (power consumption of electrical components)	This value indicates the power of the auxiliary users in kW at the time of data collection. This is the on-board power consumption including the power for the air conditioning.
Average electric consumption	This value indicates the average electric consumption in [kWh/100 km or mi/kWh] at the time of data collection. Note: Not available for the models i3 and i8.
Average speed	The value indicates the average speed driven by the vehicle in km/h or mph at the time of data collection.
Battery charging port any position flap automatic open/close	This field indicates if customer setting for opening the flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port any position flap open	This signal indicates, if charging port is open in the vehicle.
Battery charging port any position plugged	This signal indicates, if a charging cable is plugged in the charging port.
Battery charging port front left flap automatic open/close	This field indicates if customer setting for opening the front left flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port front left flap open	This signal indicates, if front left charging port is open in the vehicle.
Battery charging port front left plugged	This signal indicates, if a charging cable is plugged in the front left charging port.
Battery charging port front middle flap automatic open/close	This field indicates if customer setting for opening the front middle flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port front middle flap open	This signal indicates, if front middle charging port is open in the vehicle.
Battery charging port front middle plugged	This signal indicates, if a charging cable is plugged in the front middle charging port.
Battery charging port front right flap automatic open/close	This field indicates if customer setting for opening the front right flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port front right flap open	This signal indicates, if front right charging port is open in the vehicle.
Battery charging port front right plugged	This signal indicates, if a charging cable is plugged in the front right charging port.

CarData Element	Description
Battery charging port rear left flap automatic open/close	This field indicates if customer setting for opening the rear left flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port rear left flap open	This signal indicates, if rear left charging port is open in the vehicle.
Battery charging port rear left plugged	This signal indicates, if a charging cable is plugged in the rear left charging port.
Battery charging port rear middle flap automatic open/close	This field indicates if customer setting for opening the rear middle flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port rear middle flap open	This signal indicates, if rear middle charging port is open in the vehicle.
Battery charging port rear middle plugged	This signal indicates, if a charging cable is plugged in the rear middle charging port.
Battery charging port rear right flap automatic open/close	This field indicates if customer setting for opening the rear right flap by myWay function (slider in the mobile app) is active. If true, flap opens automatically when the vehicle is close to a charging station with the digital key in the pocket and closes automatically after unplugging the cable.
Battery charging port rear right flap open	This signal indicates, if rear right charging port is open in the vehicle.
Battery charging port rear right plugged	This signal indicates, if a charging cable is plugged in the rear right charging port.
Battery high temp power reduction	This field contains the derating status due to too high temperature of the HV battery.
Battery low temp power reduction	This field contains the derating status due to too low temperature of the HV battery.
Battery management temperature	Temperature of the battery pack
Battery voltage	The value indicates the current battery voltage in the vehicle's electrical system. This value is always given in voltage, e.g. 14.4 V.
Cable connection derating	This field contains the derating status through high-voltage accumulator cable connection panel or HV plug.
Calculated remaining charging time of the high-voltage battery	This value indicates the calculated time (in minutes) until the high-voltage battery is fully charged. If a navigation destination has been set, the time remaining until reaching the destination will be displayed.
Capacity test derating	This field contains the derating status due to capacity test of hv battery, charging not allowed.
Charge state reduction end hour	End Hour of Timer for Reduction of Current Charging is used to specify for charging in time window according end time.



CarData Element	Description
Charge state reduction end minute	End Minute of Timer for Reduction of Current Charging is used to specify for charging in time window according end time.
Charge state reduction start hour	Start Hour of Timer for Reduction of Current Charging is used to specify for charging in time window according start time.
Charge state reduction start minute	Start Minute of Timer for Reduction of Current Charging is used to specify for charging in time window according start time.
Charge state reduction timers	Timer for reduction of Current Charging is used to specify for charging in time window according end or start time. Five timers are available in total.
Charging authentication status	Plug & Charge (Automatic Payment of Charging Services) authorization status of a charging session. "AUTHORIZATION_SUCCESSFUL" - Authentication with PlugAndCharge successful, "TRANSPORT_LAYER_ERROR" - TLS connection to EVSE not possible, "HIGH_LEVEL_COMMUNICATION_ERROR" - High Level communication with ISO15118 error, "CONTRACT_SERVICE_NOT_SUPPORTED_ERROR" - EVSE doesn't support Authentication via PlugAndCharge, "AUTHORIZATION_TIMEOUT" - Authorization run in an error, "AUTHORIZATION_TIMEOUT" - authentication not finished after 120s, "NVM_READ_CERTIFICATE_ERROR" - Certificates couldn't be read from Charging Control Unit storage, "CERTIFICATE_UPDATE_ERROR" - update of contract via powerline failed, "XML_SECURITY_ERROR" - Schema validation error of transferred data.
Charging cable overtemperature	This field contains the derating status due to overtemperature of hv cable to socket (LT3).
Charging completion minute	This signal represents the charging end time as minutes of the day. Since this is an absolute value, it can cross day boundaries, the signal needs to be correlated with the remaining charging time in minutes. See ElectricEngine.Charging.TimeRemaining and ElectricEngine.Charging.TimeToFullyCharged. Absolute charging end time hours can be found in ElectricEngine.Charging.TimeEndHour. See Completion.Time for SP25
Charging connector status	Current condition of charging plug across all types (inductive, conductive), modes (AC, DC) and service packs.
Charging current limit	This value indicates the set limit of the charging current in amperes (A).
Charging derating percentage	Percentage of derating impact on charging power.
Charging efficiency too low	Derating status due to too low efficiency of the onboard charger.
Charging History	This value shows a list of charging processes performed on the vehicle, which were recorded in the course of the "Charging History" service.
Charging infrastructure limitation	This field contains the derating status due to infrastructure limitation.
Charging method and plug type	This value describes whether the vehicle was charged with direct current (DC) or alternating current (AC) and which charging plug was used for this purpose. The indicated technical value AC_TYPE1PLUG, for example, indicates that the high-voltage battery was charged in alternating current mode, making use of a charging plug of Type 1.

CarData Element	Description
Charging mode	Current charging mode.
Charging mode deviation	This parameter contains the information of deviation to the customer selected charging mode due to system reasons.
Charging mode selection derating	This field contains the derating status due to customer setting charging mode.
Charging port connected station ID	The Electric Vehicle Supply Equipment-ID (EVSE-Id) is unique identifier of one public charging port operated by a charging point operator (CPO).
Charging port connected station MAC	MAC address of the currently connected charging station. The MAC address format is XX:XX:XX:XX:XX.
Charging port plug event ID	Unique identifier which increases each time the customer plugs in his electrified vehicle (EXCEPT if the time between unplug and plug-in is less than 90 seconds). This value should be unique for each charging session. See ElectricEngine.Charging.PlugStatus.
Charging port status text	Required alongside Vehicle.Body.ChargingPort.Status to ensure correct handling of charging sessions for G08 BEV vehicles (for details, contact DE-3-E; onboard fix expected by 2021-03)
Charging power	The current charging power in Watt. This value should only be considered with respect to the current timestamp.
Charging process of the high-voltage battery (inductive/conductive)	This value indicates the charging process (CONDUCTIVE/INDUCTIVE) used to charge the vehicle at the time of data collection.
Charging process of the high-voltage battery (phases)	This value indicates the number of phases in which the high-voltage battery will be charged.
Charging profile preference	Charging preference of current charging profile. This value depends on charge mode selection. For Vehicle.ElectricEngine.Charging.Profile.Mode being "DELAYED_CHARGING", Vehicle.ElectricEngine.Charging.Profile.Preference is either "SMART_CHARGING" or "CHARGING_WINDOW". In case Vehicle.ElectricEngine.Charging.Profile.Mode is "IMMEDIATE_CHARGING", Vehicle.ElectricEngine.Charging.Profile.Preference is set to "NO_PRESELECTION".
Charging socket overtemperature	This field contains the derating status due to overtemperature of charging socket.
Charging status	This value indicates the current charging status of the vehicle at the time of data collection. For example, NOCHARGING means that the vehicle's high-voltage battery is currently not being charged. INITIALIZATION means that the charging process is just being prepared, while CHARGINGACTIVE means that the battery is just being charged. Other possible values are: CHARGINGPAUSED (charging paused), CHARGINGENDED (charging ended) and CHARGINGERROR (charging error).
Charging status of battery	This value indicates the charging status of the high-voltage battery at the end of the most recently logged drive (in percentage).

CarData Element	Description
Charging status of high-voltage battery	This value indicates the current charging status of the vehicle at the time of data collection.
Charging time display	This value indicates whether the charging time is displayed in the vehicle.
Charging timer type	Charging profile timer type (e.g., Weekdays or TwoTimesTimer)
Charging window selection	Indicates a pre-defined time window in which the high-voltage battery of the vehicle should be charged. The value could be either NOTCHOSEN or CHOSEN.
Climatization active	Climatization Activation of Vehicle in Charging Profile, vehicle interior gets preconditioned for next departure time.
Current limitation selection derating	This field contains the derating status due to customer setting ac current limitation.
Current predicted charging status	This value indicates the current predicted charging status in percent.
CV phase active derating	This field contains the derating status due CV phase.
Departure time display	This value indicates whether the departure time is displayed in the vehicle.
Departure time relevant	Information if the upcoming departure time is relevant for the professional mode (bidirectional/unidirectional) and the target state of energy shall be reached at this time.
Discharge allowed	Allowing discharging in professional mode for the bidirectional power transfer function (BPT) is selected from customer or not (ON/OFF).
Displayed max state of charge	Max state of charge display value. (e.g., 97% = 100% in display). Depends on vehicle and country.
Displayed min state of charge	Min state of charge for displaying state of charge value. (e.g., 17% = 0% in display). Depends on vehicle and country.
Driving style evaluation - 'acceleration behaviour'	This value indicates the number of stars which the driving style analysis has given to the acceleration behaviour of the driver at the time of data collection. The system allocates 0 to 5 stars.
Driving style evaluation - 'pro-active driving'	This value indicates the number of stars which the driving style analysis has given to the 'pro-active driving' behaviour of the driver at the time of data collection. The system allocates 0 to 5 stars.
Electrical energy consumption in COMFORT mode during the most recent drive	This indicates the electrical energy consumption (kWh) in COMFORT mode, measured at the time of data collection.
Electrically driven distance during the most recent drive	This value indicates the distance covered with electrical energy during the most recent drive in percentage.
Energy content of the high-voltage battery	This value indicates the current energy content of the high-voltage battery.

CarData Element	Description
Energy recuperated during the last drive	This value indicates the average electrical energy in kilowatt hours (kWh/100 km or kWh/62 mi) recuperated during the last logged drive per 100 kilometres or 62 miles. The values range from 0 to 254.
Energy required until high-voltage battery fully charged	This value indicates the amount of energy required to fully charge the battery.
Estimate of electric range during charging	This value indicates the electric range predicted during charging.
Estimate of remaining charging time	This value indicates the estimated remaining charging time in minutes.
Estimate of total range during charging	This value indicates the total range predicted during charging (total of electric range and combustion engine range).
EVSE power too low	This field contains the derating status due to too low power of EVSE.
Health status of the 48 V battery (SOCE)	This value indicates the health status of the 48 V battery (SOCE, State of Certified Energy).
Health status of the high-voltage battery (SOCE)	This value indicates the health status of the high-voltage battery (SOCE, State of Certified Energy).
High voltage battery thermal status	Thermal status of high voltage battery in terms of DC charging (DC - Direct Current).
HV charging system status	Charging HV Status.
IBLE charging limitation	This field contains the derating status due to infrastructure limitation maximum voltage station to low.
Immediate charging system reason	This parameter contains the information that customer selected charging mode is overwritten due to system reasons.
Instant charging function status	This value indicates whether the "instant charging" function is activated.
Last charging reason	Reason of the last charging process.
Last charging result	Result of the last charging process.
Lifetime protection low derating	This field contains the derating status due to memory protection level low.
Lifetime protection medium derating	This field contains the derating status due to memory protection level medium.
Location-based charging settings	The value shows a list of the vehicle's currently stored location-based charging settings, which were recorded as part of the "Location-based charging settings" service.
Locking status of charging plug after charging complete	This value indicates whether the charging plug is automatically unlocked (HOSPITALITY_ACTIVE) or remains locked (HOSPITALITY_INACTIVE) after charging is completed.
Locking status of the charging flap	This value indicates whether the charging flap is locked independently of the central locking at the time of data collection.

CarData Element	Description
Main derating reason display	The main reason for derating, only filled if relevant.
Manual preconditioning status feedback	Current state of button for manual battery preconditioning. Either for charging or driving.
Maximum charging current	This value indicates the maximum available charging current, independently of the infrastructure and selected cable.
Mileage after last drive	This value indicates the total mileage after the last drive logged.
Minimum charging current	This value indicates the minimum available charging current, independently of the infrastructure and selected cable.
Mode performance not possible	This field contains the derating status in case selected performance mode is not possible due to battery.
OBFCM* reference distance for measuring the supplied mains energy	This value indicates the reference distance for measuring the energy supplied using charging cables.
Overcurrent limit derating	This field contains the derating status due to current QM limit is exceeded.
Overtemperature derating	Derating status due to overtemperature of the onboard charger.
Overvoltage limit derating	This field contains the derating status due to voltage QM limit is exceeded.
Phase failure derating	This field contains the derating status due to too phase failure.
Preconditioning duration	Predicted battery preconditioning duration in minutes until target temperature is reached.
Preconditioning state	Status of battery preconditioning activity. On legacy value only valid for legacy-project SP2021plus.
RCP config complete	Vehicles with a complete RCP (Remote Charging Profile) Configuration explicitly send values for all charging profile attributes. For Vehicles without a complete RCP Configuration, some defaults are applied.
Reason charging ended	Reason for the end of charging, from SP25 on.
Reason for ending a charging process	This value indicates the reason why a charging process was ended.
Reference distance for measuring the supplied mains energy while the combustion engine was active	This value indicates the reference distance for measuring the energy supplied using charging cables while the combustion engine was active (used e.g. by OBFCM*).
Reference distance for measuring the supplied mains energy while the combustion engine was inactive	This value indicates the reference distance for measuring the energy supplied using charging cables while the combustion engine was inactive (used e.g. by OBFCM*).
Remaining electric range in km or mi	This value indicates the remaining electric range at the time of data collection.

CarData Element	Description
Remaining electric range, depending on target charging status	This value indicates the remaining electric range at the time of data collection. This depends on the set target value of the charging status.
Remote charging availability	Availability of battery preconditioning with purpose charging.
Remote charging restrictions	Reasons that prevent the activation of battery preconditioning during remote charging. TM stands for thermal management.
Remote driving availability	Availability of battery preconditioning in remote driving mode.
Remote driving restrictions	Reasons that prevent the activation of battery preconditioning in remote driving mode. TM stands for thermal management.
Route optimized charging status	Indicates the charging status in cases where e-route charging is used by the customer for his journey. E-route charging sessions have two distinct phases. Route optimized charging sessions override the customer target state of charge temporarily.
Status of charging flap	This value indicates whether the charging flap is locked at the time of data collection.
Status of charging limit	This value indicates whether a charging current limit was active at the time of data collection.
Status of charging plug	This value indicates whether the vehicle was connected to a charging plug at the time of data collection (CONNECTED) or not (DISCONNECTED).
Status of charging plug (DC only)	This value indicates whether the vehicle was connected to a DC charging plug at the time of data collection (CONNECTED) or not (DISCONNECTED).
Target charging status of the high-voltage battery	This value indicates the target charging status of the high-voltage battery in percent. This is displayed in 10% increments.
Target max V2X state of charge	Maximum allowed v2x state of charge during bidirectional charging and unidirectional charging mode. This protects the high voltage battery and ensures higher state of health over time. Discharging over this limit is not allowed.
Target min state of charge	Min target state of charge requested by customer for smart charging and V2X.
Target raw state of charge	Provides set target state of charge which can be set by the customer by using the Remote Services (Please check capabilities beforehand). This is the raw value send by the vehicle, which is not enhanced by the service VES (Vehicle Electric State), i.e. it is not set to 100 percent for cars not having the functionality and is not obtained from the charging model for G08. For the enhanced value please use Vehicle.Powertrain.Electric.Battery.StateOfCharge.Target instead.
Target SOC for professional mode	Contains the target state of charge that shall be used as target in professional mode. At least this target state of charge will be reached by departure time.
Time of most recent drive	The time stamp contains the date and local time of the most recently logged and transmitted drive, for example 15.05.2017 15:51:00 UTC or 05/15/2017 15:51:00 UTC.
Total mains energy consumed while the combustion engine was active	This value indicates the total energy supplied using charging cables while the combustion engine was active (used e.g. by OBFCM*).

CarData Element	Description
Total mains energy consumed while the combustion engine was inactive	This value indicates the total energy supplied using charging cables while the combustion engine was inactive (used e.g. by OBFCM*).
Total mains energy supplied to the vehicle (PHEV only)	This value indicates the total energy supplied using charging cables.

#### INFORMATION ABOUT THE CONNECTEDDRIVE CONTRACT DETAILS.

CarData Element	Description
Active ConnectedDrive contracts	This value provides an overview of all active ConnectedDrive contracts and the end of the respective contract period.