

CiA Work Draft Proposal 413

CANopen

Device Profile for Truck Gateways

Part 3: Application objects for other than brake and running gear equipment

This is a work draft proposal and shall not be implemented

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HISTORY

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1 Scope

Part 3 of CANopen device profile for truck gateways defines the application objects for other than brake and running gear equipment. The normative references, definitions, acronyms, and abbreviations given in part 1 applies to this part, too.

1.1 Resolution, scaling and offset object definitions

The default values of the resolution_numerator, resolution_denominator minimum_value_range, maximum_value_range and offset objects may be defined in other standards and specifications. These values may be given in brackets for convenience, however, they shall be double-checked with the appropriate documents. The application object's Dimension may be also defined in other standards and specifications. The Dimension is given in brackets for convenience and shall be double-checked with the appropriate documents.

2 Objects for other than brake and running gear equipment

2.1 Rear obstacle distance (6100h); scaling and offset (6101h)

This object provides the actual distance between the back of the (towed) vehicle and any obstacle. (Dimension is cm).

Object Description

INDEX	6100h
Name	rear_obstacle_distance
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	6101h
Name	rear_obstacle_distance_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	NO

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	2

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.2 Thermal body temperature (6102h); scaling and offset (6103h)

This object provides the actual temperature in a thermal body on the towed vehicle. (Dimension is °C)

Object Description

INDEX	6102h
Name	thermal_body_temperature
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	83h (-125)

Object Description

INDEX	6103h
Name	thermal_body_temperature_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FF83h (-125)

2.3 Obstacle detection device request (6104h)

This command object switches on or off obstacle detection device (ODD).

Bit definitions: 00 – ODD off
 01 – ODD on
 11 – take no action

Object Description

INDEX	6104h
Name	obstacle_detection_device_request
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.4 Anti-theft device request (6105h)

This command object activates the anti-theft device.

Bit definitions: 00 – anti-theft device off
 01 – anti-theft device on
 11 – take no action

Object Description

INDEX	6105h
Name	anti_theft_device_request
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.5 Obstacle detection device active (6106h)

This object indicates that an ODD is active/inactive.

Bit definitions: 00 – ODD inactive
 01 – ODD active

Object Description

INDEX	6106h
Name	obstacle_detection_device_active
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.6 Anti-theft device (6107h)

This object indicates that the anti-theft device is switched on or off.

Bit definitions: 00 – anti-theft device off
01 – anti-theft device on

Object Description

INDEX	6107h
Name	anti_theft_device
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.7 Towing vehicle type (6108h)

This object provides information to identify a dolly axle within a road train.

Bit definitions: 00 – towing vehicle
01 – dolly axle

Object Description

INDEX	6108h
Name	towing_vehicle_type
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.8 Towed vehicle type (6109h)

This object provides information to identify a dolly axle within a road train.

Bit definitions: 00 – towed vehicle
01 – dolly axle

Object Description

INDEX	6109h
Name	towed_vehicle_type
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	Constant
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	Constant
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.9 Percent clutch slip (610Ah); scaling and offset (610Bh)

This object represents the ratio of input shaft speed to current engine speed. (The value is dimensionless).

$$\text{Percent clutch slip} = [(\text{Engine speed} - \text{Input shaft speed}) : \text{Engine speed}] \times 100$$

Object Description

INDEX	610Ah
Name	percent_clutch_slip
Object Code	Array
Data Type	Unsignd8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	64h (100)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	610Bh
Name	percent_clutch_slip_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	4

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	3E8h (1000)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.10 Current gear (610Ch); scaling and offset (610Dh)

The gear currently engaged in the transmission or the last gear engaged while the transmission is in process of shifting to the new or selected gear. Transitions toward a destination gear will not be indicated. Once the selected gear has been engaged, the current gear will reflect that gear. (The value is dimensionless).

Note 1: Negative values are reverse gears, positive values are forward gears, zero is neutral

Note 2: 251 (FBh) is park

Object Description

INDEX	610Ch
Name	current_gear
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	83h (-125)

Object Description

INDEX	610Dh
Name	current_gear_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FF83h (-125)

2.11 Accelerator pedal low idle switch (610Eh)

This object indicates whether the accelerator pedal low idle switch is opened or closed.

Bit definitions: 00 – accelerator pedal low idle switch not in low idle condition
01 – accelerator pedal low idle switch in low idle condition

Object Description

INDEX	610Eh
Name	accelerator_pedal_low_idle_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.12 Engine control allowed (610Fh)

This object indicates that engine control is allowed.

Bit definitions: 00 – engine control not allowed
01 – engine control allowed

Object Description

INDEX	610Fh
Name	engine_control_allowed
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.13 PTO control allowed (6110h)

This object indicates that PTO control is allowed.

Bit definitions: 00 – PTO control not allowed
01 – PTO control allowed

Object Description

INDEX	6110h
Name	PTO_contol_allowed
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.14 Vehicle speed (6111h); scaling and offset (6112h)

Speed of vehicle calculated from tail-shaft speed or taken from tachograph. (Dimension is km/h)

Object Description

INDEX	6111h
Name	vehicle_speed
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6112h
Name	vehicle_speed_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	100h (256)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.15 Engine speed (6113h); scaling and offset (6114h)

This object provides the actual engine speed. (Dimension is 1/min)

Object Description

INDEX	6113h
Name	engine_speed
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6114h
Name	engine_speed_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	8

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.16 Driver's demand engine percent torque (6115h); scaling and offset (6116h)

This object indicates the torque output of the engine requested by the driver. The data is transmitted in indicated torque as a percentage of the indicated peak engine torque. (The value is dimensionless).

Object Description

INDEX	6114h
Name	driver's_demand_engine_percent_torque
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	83h (-125)

Object Description

INDEX	6116h
Name	driver's_demant_engine_percent_torque_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	64h (100)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FF83h (-125)

2.17 Actual engine percent torque (6117h); scaling and offset (6118h)

This object provides the calculated output torque of the engine. The data is transmitted in indicated torque as a percentage of the reference engine torque. (The value is dimensionless).

Object Description

INDEX	6117h
Name	actual_engine_percent_torque
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	83h (-125)

Object Description

INDEX	6118h
Name	actual_engine_percent_torque_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	64h (100)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FF83h (-125)

2.18 Reference engine torque (6119h); scaling and offset (611Ah)

This object provides the 100% reference value for all defined indicated engine torque parameters. (Dimension is Nm).

Object Description

INDEX	6119h
Name	reference_engine_torque
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	611Ah
Name	reference_engine_torque_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.19 Percent load at current speed (611Bh); scaling and offset (611Ch)

This object provides the ratio of actual engine percent torque to maximum indicated torque available at the current engine speed, clipped to zero torque during engine braking. (The value is dimensionless).

Object Description

INDEX	611Bh
Name	percent_load_at_current_speed
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	611Ch
Name	percent_load_at_current_speed_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	64h (100)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.20 Maximum vehicle speed limit (611Dh); scaling and offset (611Eh)

This object indicates the maximum vehicle velocity allowed. (Dimension is m/h)

Object Description

INDEX	611Dh
Name	maximum_vehicle_speed_limit
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	611Eh
Name	maximum_vehicle_speed_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	3E8h (1,000)

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.21 Engine speed upper limit (611Fh); scaling and offset (6120h)

This objects indicates the engine speed, which cannot be exceeded. (Dimension is 1/min).

Object Description

INDEX	611Fh
Name	engine_speed_upper_limit
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6120h
Name	engine_speed_upper_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	8

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.22 Engine speed lower limit (6121h); scaling and offset (6122h)

This object indicates the minimum engine speed, which the engine is allowed to reach. (Dimension is 1/min).

Object Description

INDEX	6121h
Name	engine_speed_lower_limit
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6122h
Name	engine_speed_lower_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	8

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.23 Engine coolant temperature warning (6123h)

This object indicates that the engine coolant temperature has reached its warning level.

Bit definitions: 000 – no warning
 001 – pre-warning
 010 – warning
 011 – reserved
 100 – reserved
 101 – reserved
 110 – error indicator
 111 – not available

Object Description

INDEX	6123h
Name	engine_coolant_temperature_warning
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	3h
Default Value	3h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	3h
Description	Bit_3
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.24 Engine oil pressure warning (6124h)

This object indicates that the engine oil pressure has reached its warning level.

Bit definitions: 00 – no warning
01 – warning

Object Description

INDEX	6124h
Name	engine_oil_pressure_warning
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.25 Engine oil temperature (6125h); scaling and offset (6126h)

This object provides the temperature of the engine lubricant. (Dimension is °C).

Object Description

INDEX	6125h
Name	engine_oil_temperature
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	D7D2h (55,250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

Object Description

INDEX	6126h
Name	engine_oil_temperature_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	20h (32)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

2.26 Engine coolant temperature (6127h); scaling and offset (6128h)

This object provides the temperature of the liquid in the engine cooling system. (Dimension is °C).

Object Description

INDEX	6127h
Name	engine_coolant_temperature
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	D2h (210)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	D8 (-40)

Object Description

INDEX	6128h
Name	engine_coolant_temperature_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FFD8h (-40)

2.27 Engine oil pressure (6129h); scaling and offset (612Ah)

This object provides the gauge pressure of the oil in the engine lubrication system as provided by the oil pump. (Dimension is Pa).

Object Description

INDEX	6129h
Name	engine_oil_pressure
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	612Ah
Name	engine_oil_pressure_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FA0h (4,000)

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.28 Torque converter oil temperature warning (612Bh)

This object indicates that the torque converter oil temperature has reached its warning level.

Bit definitions: 000 – no warning
 001 – pre-warning
 010 – warning
 011 – reserved
 100 – reserved
 101 – reserved
 110 – error indicator
 111 – not available

Object Description

INDEX	612Ah
Name	torque_converter_oil_temperature_warning
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	3h
Default Value	3h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	3h
Description	Bit_3
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.29 Torque converter oil temperature (612Ch); scaling and offset (612Dh)

This object provides the temperature of the torque converter lubricant. (Dimension is °C).

Object Description

INDEX	612Ch
Name	torque_converter_oil_temperature
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	D8E0h (55,520)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

Object Description

INDEX	612Ch
Name	torque_converter_oil_temperature_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	20h (32)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

2.30 First clutch dependent PTO feedback (612Eh)

This object indicates the current state of the first clutch dependent power take off.

Bit definitions: 00 – not engaged
01 – engaged

Object Description

INDEX	612Eh
Name	first_clutch_dependent_PTO_feedback
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.31 Second clutch dependent PTO feedback (612Fh)

This object indicates the current state of the second clutch dependent power take off.

Bit definitions: 00 – not engaged
01 – engaged

Object Description

INDEX	612Fh
Name	second_clutch_dependent_PTO_feedback
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.32 Clutch independent PTO feedback (6130h)

This object indicates the current state of the clutch independent power take off.

Bit definitions: 00 – not engaged
 01 – engaged

Object Description

INDEX	6130h
Name	clutch_independent_PTO_feedback
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.33 First engine mounted PTO feedback (6131h)

This object indicates the current state of the first engine mounted power take off.

Bit definitions: 00 – not engaged
01 – engaged

Object Description

INDEX	6131h
Name	first_engine_mounted_PTO_feedback
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.34 Second engine mounted PTO feedback (6132h)

This object indicates the current state of the second engine mounted power take off.

Bit definitions: 00 – not engaged
01 – engaged

Object Description

INDEX	6132h
Name	second_engine_mounted_PTO_feedback
Object Code	Array
Data Type	Booelan
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.35 Starter active (6133h)

This object indicates whether the starter is in use.

Bit definitions: 00 – starter not active
01 – starter active

Object Description

INDEX	6133h
Name	starter_active
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.36 Engine running (6134h)

This object indicates whether the engine is running.

Bit definitions: 00 – engine not running
01 – engine running

Object Description

INDEX	6134h
Name	engine_running
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.37 Engine torque mode (6135h)

This object indicates which engine torque mode is currently generating, limiting or controlling the torque. Not all modes may be relevant for a given device.

Bit definitions: 0000 – low idle governor/no request (default mode)
 0001 – accelerator pedal
 0010 – cruise control
 0011 – PTO governor
 0100 – road speed governor
 0101 – ASR governor
 0110 – transmission control
 0111 – ABS control
 1000 – torque limiting
 1001 – high-speed governor
 1010 – braking system
 1011 – remote accelerator
 1100 – reserved
 1101 – others
 1110 – error indicator
 1111 – not available

Object Description

INDEX	6135h
Name	engine_torque_mode
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	4h
Default Value	4h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	3h
Description	Bit_3
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	4h
Description	Bit_4
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.38 First clutch dependent PTO switch (6136h)

This object indicates the state of the first clutch dependent power take off switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	6136h
Name	first_clutch_dependent_PTO_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.39 Second clutch dependent PTO switch (6137h)

This object indicates the state of the second clutch dependent power take off switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	6137h
Name	second_clutch_dependent_PTO_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.40 Clutch independent PTO switch (6138h)

This object indicates the state of the clutch independent power take off switch.

Bit definitions: 00 – switched off
 01 – switched on

Object Description

INDEX	6138h
Name	clutch_independent_PTO_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.41 First engine mounted PTO switch (6139h)

This object indicates the state of the first engine mounted power take off switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	6139h
Name	first_engine_mounted_PTO_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.42 Second engine mounted PTO switch (613Ah)

This object indicates the state of the second engine mounted power take off switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	613Ah
Name	second_engine_mounted_PTO_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.43 Requested percent clutch slip (613Bh); scaling and offset (613Ch)

This command object influences the clutch. (The value is dimensionless).

Object Description

INDEX	613Bh
Name	requested_percent_clutch_slip
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	613Ch
Name	requested_percent_clutch_slip_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

2.44 Starter lockout switch (613Dh)

This object indicates the state of the starter lockout switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	613Dh
Name	starter_lockout_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.45 Engine start switch (613Eh)

This object indicates the state of the engine start switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	613Eh
Name	engine_start_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.46 Engine stop switch (613Fh)

This object indicates the state of the engine stop switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	613Fh
Name	engine_stop_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.47 Requested engine speed upper limit (6140h); scaling and offset (6141h)

This object provides the requested engine speed, which is not to be exceeded. (Dimension is 1/min).

Object Description

INDEX	6140h
Name	requested_engine_speed_upper_limit
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6141h
Name	requested_engine_speed_upper_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	8

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.48 Requested engine speed lower limit (6142h); scaling and offset (6143h)

This object provides the requested minimum engine speed, which the engine is to allow. (Dimension is 1/min).

Object Description

INDEX	6142h
Name	requested_engine_speed_lower_limit
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6143h
Name	requested_engine_speed_lower_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	8

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.49 Requested engine torque limit (6144h); scaling and offset (6145h)

This object provides the requested engine torque that the engine is not allowed to exceed, indicated as a ratio of the reference engine torque. (The value is dimensionless).

Object Description

INDEX	6144h
Name	requested_engine_torque_limit
Object Code	Array
Data Type	Signed8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Signed8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	7Dh (125)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed8
Default Value	83h (-125)

Object Description

INDEX	6145h
Name	requested_engine_torque_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	64h (100)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FF83h (-125)

2.50 Requested vehicle speed limit (6146h); scaling and offset (6147h)

This object provides the requested vehicle speed, which the vehicle is not allowed to exceed. (Dimension is m/h).

Object Description

INDEX	6146h
Name	requested_vehicle_speed_limit
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	6147h
Name	requested_vehicle_speed_limit_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	3E8h (1,000)

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.51 Refuse packer step switch (6148h)

This object indicates the state of the refuse packer step switch.

Bit definitions: 00 – switched off
01 – switched on

Object Description

INDEX	6148h
Name	refuse_packer_step_switch
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.52 Operating panel active (6149h)

This object indicates that the operating panel is active.

Bit definitions: 00 – operating panel not active
01 – operating panel active

Object Description

INDEX	6149h
Name	operating_panel_active
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.53 Requested engine speed (614Ah); scaling and offset (614Bh)

This object provides the engine speed, which the engine is expected to operate at. (Dimension is 1/min).

Object Description

INDEX	6149h
Name	requested_engine_speed
Object Code	Array
Data Type	Unsigned16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64,255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	614Bh
Name	requested_engine_speed_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	20h (32)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.54 Accelerator pedal position (614Ch); scaling and offset (614Dh)

This object provides the ratio of actual accelerator pedal position to maximum pedal position. (The value is dimensionless).

Object Description

INDEX	614Ch
Name	accelerator_pedal_position
Object Code	Array
Data Type	Unsigned8
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Unsigned8
Default Value	FFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	FAh (250)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned8
Default Value	0

Object Description

INDEX	614Dh
Name	accelerator_pedal_position_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	Unsigned8
Default Value	1h to 3h

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	FAh (250)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.55 Ambient air temperature (614Eh); scaling and offset (614Fh)

This object provides the temperature of air surrounding vehicle. (Dimension is °C).

Object Description

INDEX	614Eh
Name	ambient_air_temperature
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Signed16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	D8E0h (55,520)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

Object Description

INDEX	614Fh
Name	ambient_air_temperature_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	20h (32)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	DDE0h (-8,736)

2.56 Fuel level warning (6150h)

This object indicates the decrease of the fuel level to a certain minimum.

Bit definitions: 00 – fuel level warning off
 01 – fuel level warning on

Object Description

INDEX	6150h
Name	fuel_level_warning
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.57 Trailer left-hand stop light(s) (6151h)

This object indicates the state of the trailer left-hand stop light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6151h
Name	trailer_left-hand_stop_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.58 Trailer right-hand stop light(s) (6152h)

This object indicates the state of the trailer right-hand stop light(s).

Bit definitions: 00 – lamp(s) not lit
 01 – lamp(s) lit

Object Description

INDEX	6152h
Name	trailer_right_hand_stop_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.59 Trailer left-hand direction indicator light(s) (6153h)

This object indicates the state of the trailer left-hand direction indicator light(s).

Bit definitions: 00 – lamp(s) not lit
 01 – lamp(s) lit

Object Description

INDEX	6153h
Name	trailer_left_hand_direction_indicator_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.60 Trailer right-hand direction indicator light(s) (6154h)

This object indicates the state of the trailer right-hand direction indicator light(s).

Bit definitions: 00 – lamp(s) not lit
 01 – lamp(s) lit

Object Description

INDEX	6154h
Name	trailer_right_hand_direction_indicator_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.61 Trailer left-hand rear light(s) (6155h)

This object indicates the state of the trailer left-hand rear light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6155h
Name	trailer_left_hand_rear_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.62 Trailer right-hand rear light(s) (6156h)

This object indicates the state of the trailer right-hand rear light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6156h
Name	trailer_right_hand_rear_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.63 Trailer left-hand rear fog light(s) (6157h)

This object indicates the state of the trailer left-hand rear fog light(s).

Bit definitions: 00 – lamp(s) not lit
 01 – lamp(s) lit

Object Description

INDEX	6157h
Name	trailer_left_hand_rear_fog_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.64 Trailer right-hand rear fog light(s) (6158h)

This object indicates the state of the trailer right-hand rear fog light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6158h
Name	trailer_right_hand_rear_fog_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.65 Trailer left-hand reversing light(s) (6159h)

This object indicates the state of the trailer left-hand reversing light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6159h
Name	trailer_left_hand_reversing_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.66 Trailer right-hand reversing light(s) (615Ah)

This object indicates the state of the trailer right-hand reversing light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Ah
Name	trailer_right_hand_reversing_ight(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.67 Trailer left-hand side marker light(s) (615Bh)

This object indicates the State of the trailer left-hand side marker light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Bh
Name	trailer_left_hand_side_marker_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.68 Trailer right-hand side marker light(s) (615Ch)

This object indicates the state of the trailer right-hand side marker light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Ch
Name	trailer_right_hand_side_marker_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.69 Trailer left-hand rear width indicator light(s) (615Dh)

This object indicates the state of the trailer left-hand rear width indicator light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Dh
Name	trailer_left_hand_rear_width_indicator_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.70 Trailer right-hand rear width indicator light(s) (615Eh)

This object indicates the state of the trailer right-hand rear width indicator light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Eh
Name	trailer_right_hand_rear_width_indicator_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.71 Trailer left-hand corner marker light(s) (615Fh)

This object indicates the state of the trailer left-hand corner marker light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	615Fh
Name	trailer_left_hand_corner_marker_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.72 Trailer right-hand corner marker light(s) (6160h)

This object indicates the state of the trailer right-hand corner marker light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6160h
Name	trailer_right_hand_corner_marker_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.73 Trailer left-hand rear registration-plate light(s) (6161h)

This object indicates the state of the trailer left-hand rear registration-plate light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6161h
Name	trailer_left_hand_rear_registration_plate_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.74 Trailer right-hand rear registration-plate light(s) (6162h)

This object indicates the state of the trailer right-hand rear registration-plate light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6162h
Name	trailer_right_hand_rear_registration_plate_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.75 Trailer rear warning light(s) (6163h)

This object indicates the state of the trailer rear warning light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6163h
Name	trailer_rear_warning_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.76 Trailer rotating identification light(s) (6164h)

This signal indicates the state of the trailer rotating identification light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6164h
Name	trailer_rotating_identification_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.77 Trailer interior light(s) (6165h)

This signal indicates the state of the trailer interior light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6165h
Name	trailer_interior_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.78 Trailer work light(s) (6166h)

This signal indicates the state of the trailer work light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6166h
Name	trailer_work_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.79 Body fluid level(6167h); scaling and offset (6168h)

This object provides the actual fluid level in a body on the towed vehicle. (Dimension is l).

Object Description

INDEX	6167h
Name	body_fluid_level
Object Code	Array
Data Type	Unsigned 16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	FAFFh (64255)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	6168h
Name	body_fluid_level_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	2

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.80 Body pressure (6169h); scaling and offset (616Ah)

This object provides the actual pressure in a body on the towed vehicle. (Dimension is bar).

Object Description

INDEX	6169h
Name	body_pressure
Object Code	Array
Data Type	Unsigned 8
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	value
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Unsigned16
Default Value	FFFFh

Sub-Index	2h
Description	maximum_value_range
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	19h (25)

Sub-Index	3h
Description	minimum_value_range
Entry Description	Optional
Access	rw
PDO Mapping	No
Value Range	Unsigned16
Default Value	0

Object Description

INDEX	616Ah
Name	body_pressure_scaling_and_offset
Object Code	Array
Data Type	Signed16
Category	Optional

Entry Description

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	No
Value Range	1h to 3h
Default Value	No

Sub-Index	1h
Description	Resolution_numerator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	1

Sub-Index	2h
Description	Resolution_denominator
Entry Category	Optional
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	Ah (10)

Sub-Index	3h
Description	Offset
Access	rw
PDO Mapping	No
Value Range	Signed16
Default Value	0

2.81 Rear Black Out Marker Select (616Bh)

Command signal to activate the trailer rear black out marker light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	616Bh
Name	rear_black_out_marker_select
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.82 Convoy Lamp Select (616Ch)

Command signal to activate the trailer convoy lamp.

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	616Ch
Name	convoy_lamp_select
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.83 Black out Brake/Stop Lamp Select (616Dh)

Command signal to activate the trailer black out brake/stop lamp.

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	616Dh
Name	black_out_brake/stop_lamp_select
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.84 Trailer left hand black out rear light(s) (616Eh)

This signal indicates the state of the trailer left hand black out rear light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	616Eh
Name	trailer_left_hand_black_out_rear_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.85 Trailer right hand black out rear light(s) (616Fh)

This signal indicates the state of the trailer right hand black out rear light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	616Fh
Name	trailer_right_hand_black_out_rear_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.86 Trailer left hand black out brake/stop light(s) (6170h)

This signal indicates the state of the trailer left hand black out brake/stop light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6170h
Name	trailer_left_hand_black_out_brake/stop_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.87 Trailer right hand black out brake/stop light(s) (6171h)

This signal indicates the state of the trailer right hand black out brake/stop light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6171h
Name	trailer_right_hand_black_out_brake/stop_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

2.88 Trailer rear convoy light(s) (6172h)

This signal indicates the state of the trailer rear convoy light(s).

Bit definitions: 00 – lamp(s) not lit
01 – lamp(s) lit

Object Description

INDEX	6172h
Name	trailer_rear_convoy_light(s)
Object Code	Array
Data Type	Boolean
Category	Optional

Entry Category

Sub-Index	0h
Description	Number_of_entries
Entry Category	Mandatory
Access	ro
PDO Mapping	Optional
Value Range	2h
Default Value	2h

Sub-Index	1h
Description	Bit_1
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE

Sub-Index	2h
Description	Bit_2
Entry Category	Mandatory
Access	rw
PDO Mapping	Optional
Value Range	Boolean
Default Value	TRUE