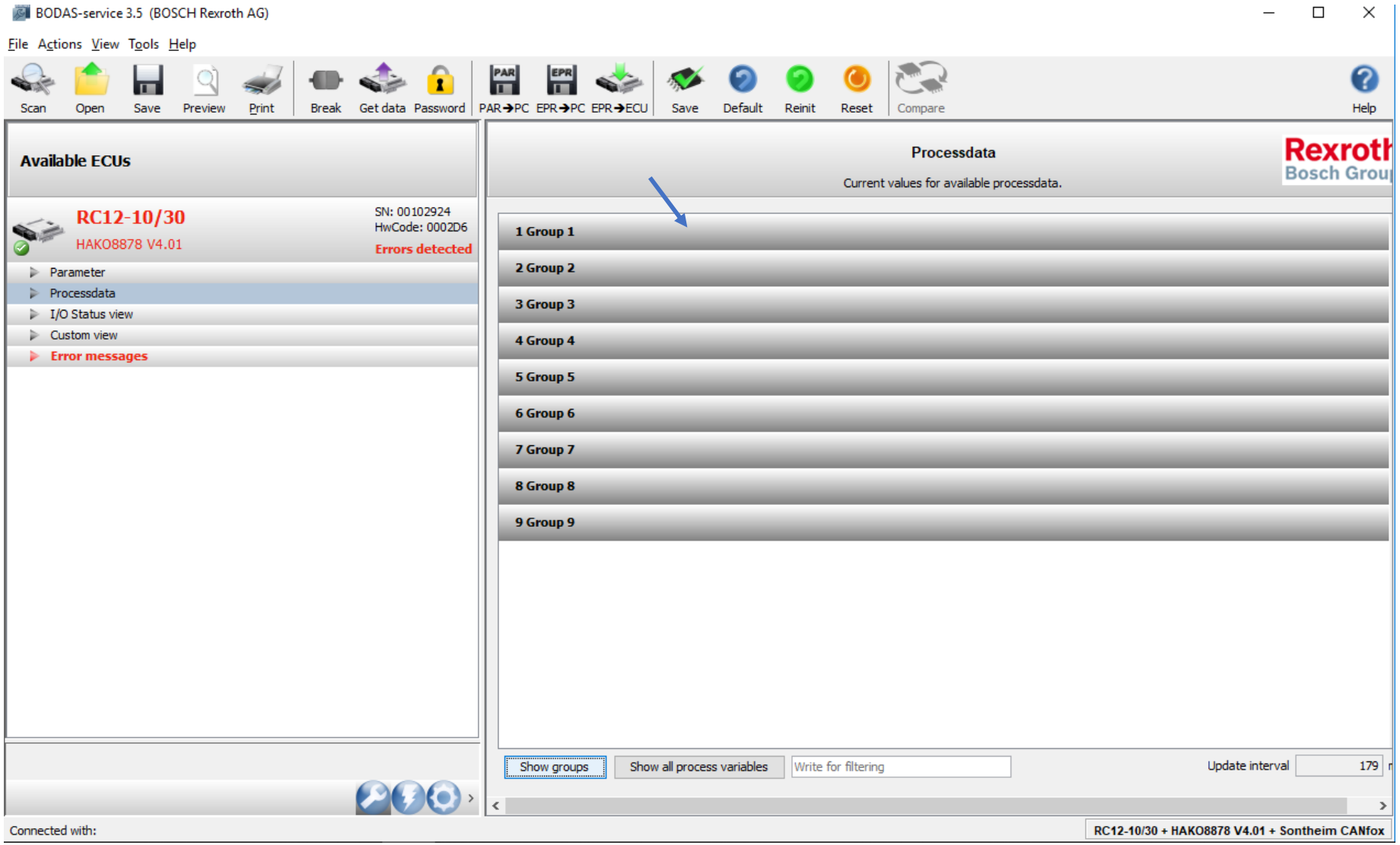
5.0.7 Process Data Bodas

- Description of the individual process variables
- Recording of the process variables

5.0.7 Process Data Bodas

After connecting to Bodas, open the “Process data” menu.
Click on the respective group to expand it.



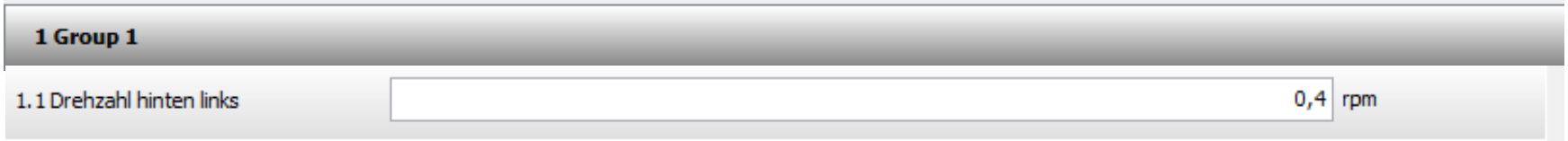
5.0.7 Process Data Bodas

The group “1 Group 1” contains the following process variables.

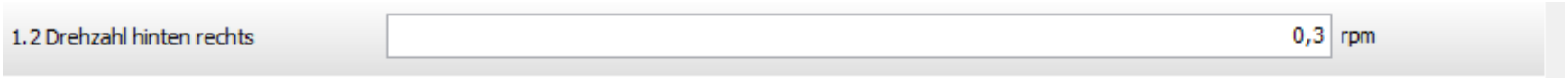
1 Group 1		
1.1 Drehzahl hinten links	0,4	rpm
1.2 Drehzahl hinten rechts	0,3	rpm
1.3 Taster Tempomat	OFF	
1.4 Taster Limitierung AFM	OFF	
1.5 Richtung hinten links	0	-1=r,1=f
1.6 Richtung hinten rechts	0	-1=r,1=f
1.7 Richtungsschalter vorw.	OFF	
1.8 Bremsschalter	OFF	

The process variables are explained on the following pages.

5.0.7 Process Data Bodas



Wheel speed front left from speedometer sensor left B13 in rpm

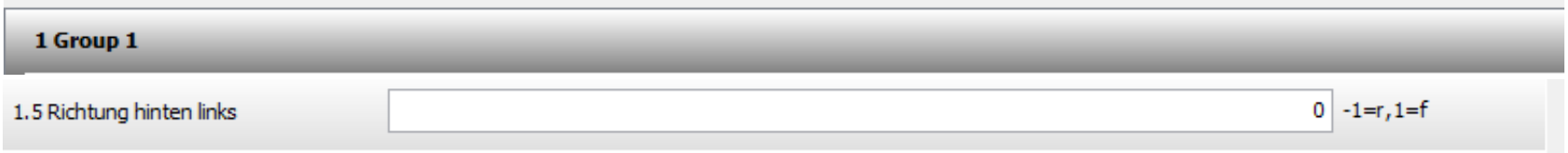


Wheel speed front right from speedometer sensor right B14 in rpm

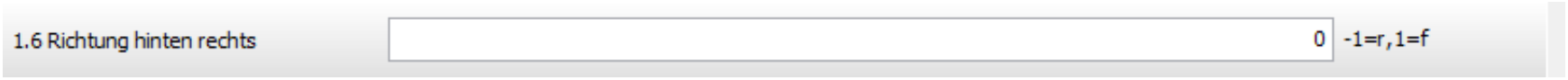
Input from tip switch – cruise control S16 pin 5
ON = Signal present
OFF = Signal not present

Input from tip switch – limiter S16 pin 2
ON = Signal present
OFF = Signal not present

5.0.7 Process Data Bodas



Direction of rotation of the wheel front left: -1 = Reverse, 1 = Forwards



Direction of rotation of the wheel front right: -1 = Reverse, 1 = Forwards

Forwards pedal actuated (angle sensor accelerator, forwards B09)
ON = Pedal actuated
OFF = Pedal not actuated

Actuated with at least 25% of the pedal travel
ON = from 25% of the teach value from the Hall sensor brake pedal B11
OFF = up to 25% of the teach value from the Hall sensor brake pedal B11

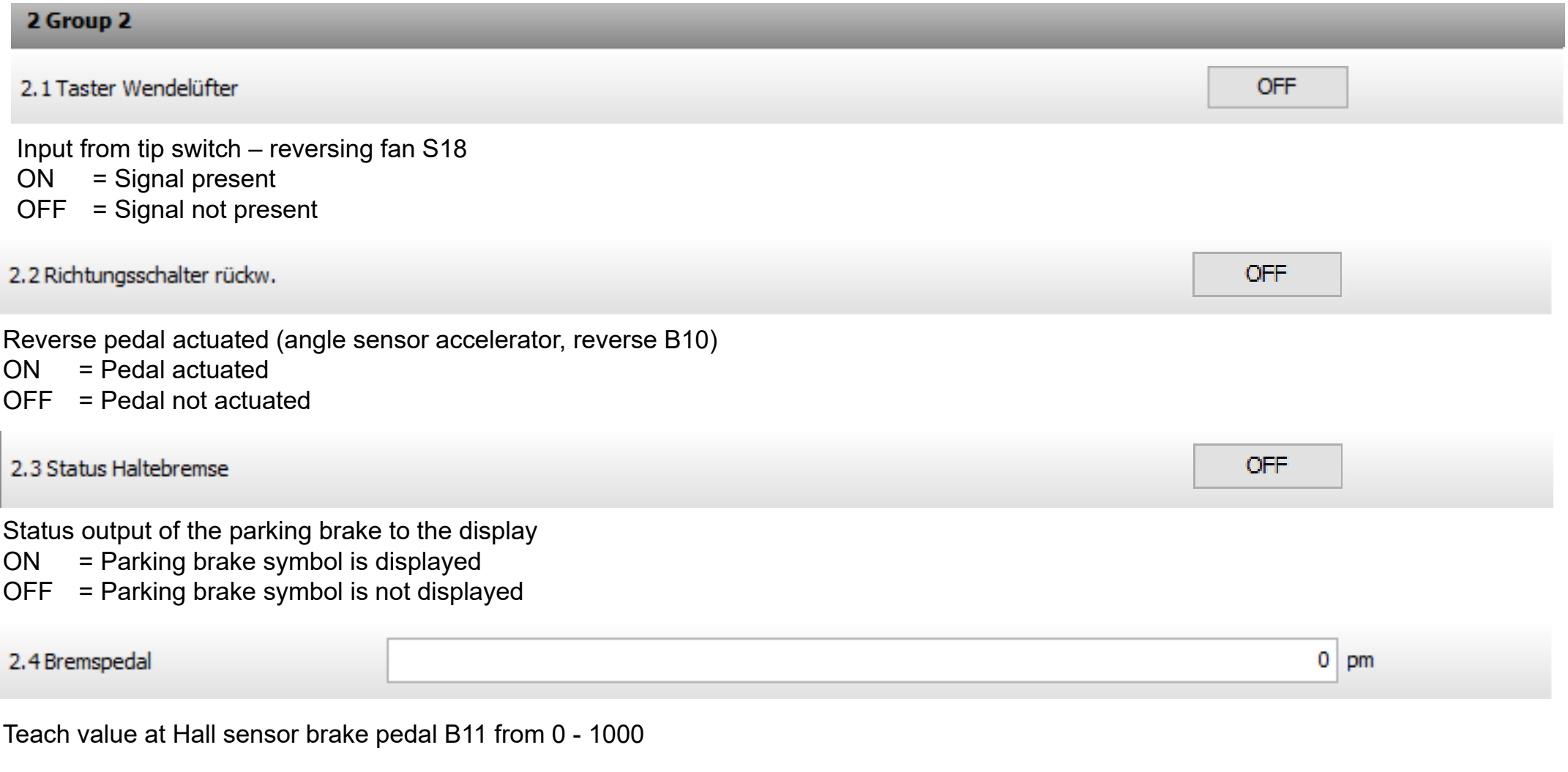
5.0.7 Process Data Bodas

The group “2 Group 2” contains the following process variables.

2 Group 2		
2.1 Taster Wendelüfter	OFF	
2.2 Richtungsschalter rückw.	OFF	
2.3 Status Haltebremse	OFF	
2.4 Bremspedal	0	pm
2.5 Druck A	1	bar
2.6 Betriebsbremse	1	bar
2.7 Druck B	3	bar
2.8 Bremspedal	525	mV

The process variables are explained on the following pages.

5.0.7 Process Data Bodas



Input from tip switch – reversing fan S18
ON = Signal present
OFF = Signal not present

Reverse pedal actuated (angle sensor accelerator, reverse B10)
ON = Pedal actuated
OFF = Pedal not actuated

Status output of the parking brake to the display
ON = Parking brake symbol is displayed
OFF = Parking brake symbol is not displayed

Teach value at Hall sensor brake pedal B11 from 0 - 1000

5.0.7 Process Data Bodas

Hako
Clean ahead

2 Group 2		
2.5 Druck A	1	bar

Pressure at drive pressure sensor Ma B01 (forwards)

2.6 Betriebsbremse	1	bar

Pressure at brake pressure sensor B03

2.7 Druck B	3	bar

Pressure at drive pressure sensor Mb B02 (reverse)

2.8 Bremspedal	525	mV

Voltage at Hall sensor brake pedal B11

5.0.7 Process Data Bodas

The group “3 Group 3” contains the following process variables.

3 Group 3		
3.1 Kühlwassertemp.	22	Grad C
3.2 Hydrauliköltemp.	25	Grad C
3.3 Pumpe vorw.	0	mA
3.4 Pumpe rückw.	0	mA
3.5 Anst. Lüfter inv.	0	pm
3.6 Versorgung Haltebremse	ON	
3.7 Umsch. Radmotore	OFF	
3.8 Bremslichtanst.	OFF	

The process variables are explained on the following pages.

5.0.7 Process Data Bodas

3 Group 3		
3.1 Kühlwassertemp.	22	Grad C

Cooling water temperature in degrees C. from cooling water temperature sensor B20

3.2 Hydrauliköltemp.	25	Grad C

Oil temperature temperature in degrees C. from hydraulic oil temperature sensor B12

3.3 Pumpe vorw.	0	mA

Current at hydraulic valve forwards direction of travel Y03

3.4 Pumpe rückw.	0	mA

Current at hydraulic valve reverse direction of travel Y04

5.0.7 Process Data Bodas

Value from 0 – 1000 at proportional valve suction fan Y10

Activation of telltale at parking brake switch
ON = Telltale lights up brightly (vehicle stops)
OFF = Telltale lights up dimly (vehicle is moving)

Activation of hydraulic valve changeover speed levels Y02
ON = 1st speed level active (only when the engine is running)
OFF = 2nd speed level active

Activation of brake lights E25 and E26 terminal 54
ON = Brake light on
OFF = Brake light off

5.0.7 Process Data Bodas

The group “4 Group 4” contains the following process variables.

4 Group 4		
4.1 Anst. Ausrollvent.	OFF	
4.2 Anst. Anlasser Relais	OFF	
4.3 Leuchte Lüfterrev.	OFF	
4.4 Umsch. Lüfterdrehr.	OFF	
4.5 Anst. Rückfahrschein.	OFF	
4.6 Verriegelung Motorstart	OFF	
4.7 Anwahl Fahrrichtung	0	-1=r,1=f
4.8 Anst. Leuchte Batterie-Trenns.	OFF	

The process variables are explained on the following pages.

5.0.7 Process Data Bodas

Hako
Clean ahead

4 Group 4

4.1 Anst. Ausrollvent.	OFF

Activation hydraulic valve coasting Y01 (emergency stop valve)
ON = Valve is energised (only when the engine is running)
OFF = Valve is not energised (vehicle stops in the event of a serious fault)

4.2 Anst. Anlasser Relais	OFF

Activation starter relay K06A
ON = Start release for Hatz engine present
OFF = Start release for Hatz engine not present

4.3 Leuchte Lüfterrev.	OFF

Telltale lamp at tip switch – reversing fan S18
ON = Lamp lights up (if fan reversal is active)
OFF = Lamp off

4.4 Umsch. Lüfterdrehr.	OFF

Activation hydraulic valve reversing fan Y32
ON = Valve is energised
OFF = Valve is not energised

5.0.7 Process Data Bodas

Hako
Clean ahead

4 Group 4

4.5 Anst. Rückfahrschein.	OFF	

Activation of reversing light E21
ON = Reversing light switched on (if reverse pedal is actuated)
OFF = Reversing light switched off

4.6 Verriegelung Motorstart	OFF	

Locking mechanism engine start
ON = never active
OFF = always active

4.7 Anwahl Fahrrichtung	0	-1=r,1=f

-1 = Forwards pedal actuated (angle sensor accelerator, forwards B09)
0 = Neutral position
1 = Reverse pedal actuated (angle sensor accelerator, reverse B10)

4.8 Anst. Leuchte Batterie-Trenns.	OFF	

Activation for telltale of the battery isolating switch H04
ON = Lamp H04 lights up (do not disconnect the battery)
OFF = Lamp H04 is off (battery can be disconnected from the vehicle)

5.0.7 Process Data Bodas

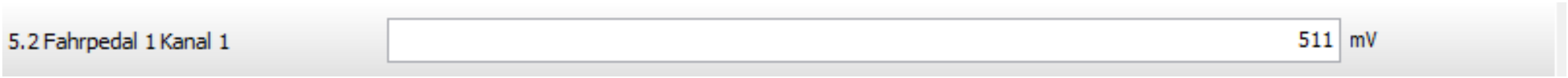
The group “5 Group 5” contains the following process variables.

5 Group 5		
5.1 Fahrpedal 1 Kanal 1	0	pm
5.2 Fahrpedal 1 Kanal 1	511	mV
5.3 Fahrpedal 1 Kanal 2	0	pm
5.4 Fahrpedal 1 Kanal 2	4.532	mV
5.5 Fahrpedal 2 Kanal 1	0	pm
5.6 Fahrpedal 2 Kanal 1	518	mV
5.7 Fahrpedal 2 Kanal 2	0	pm
5.8 Fahrpedal 2 Kanal 2	4.522	mV

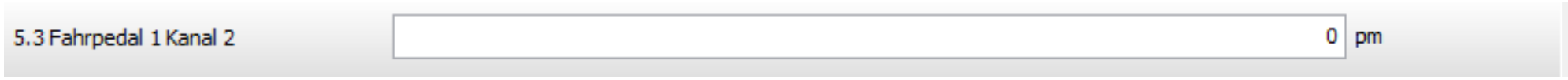
The process variables are explained on the following pages.

5.0.7 Process Data Bodas

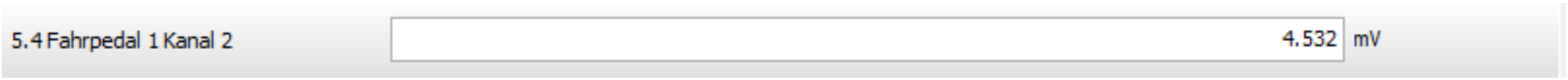
Teach value from 0 – 1000 to angle sensor accelerator, forwards B09 (channel 1)



Voltage at angle sensor accelerator, forwards B09 (channel 1)

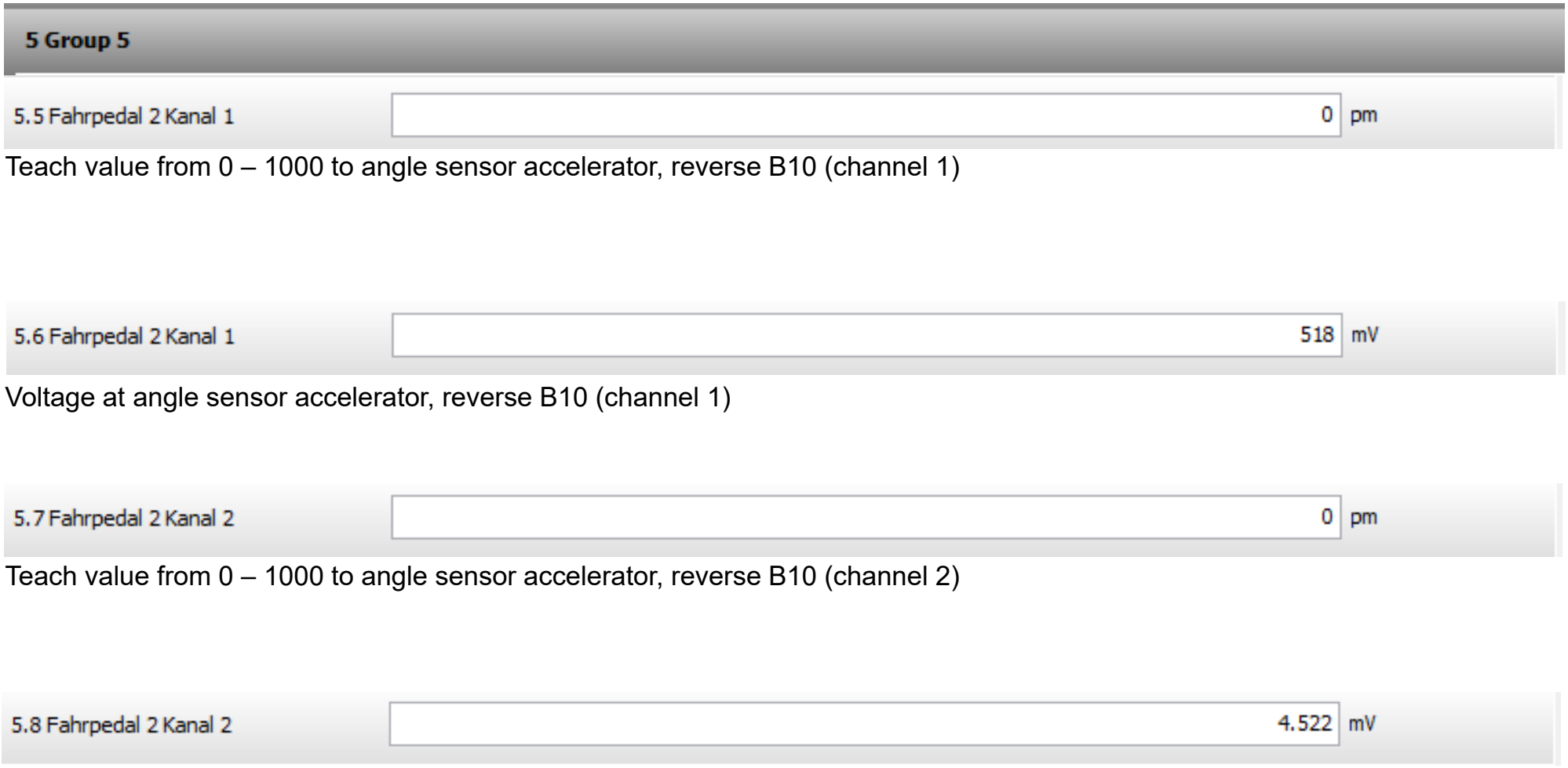


Teach value from 0 – 1000 to angle sensor accelerator, forwards B09 (channel 2)



Voltage at angle sensor accelerator, forwards B09 (channel 2)

5.0.7 Process Data Bodas



Teach value from 0 – 1000 to angle sensor accelerator, reverse B10 (channel 1)

Voltage at angle sensor accelerator, reverse B10 (channel 1)

Teach value from 0 – 1000 to angle sensor accelerator, reverse B10 (channel 2)

Voltage at angle sensor accelerator, reverse B10 (channel 2)

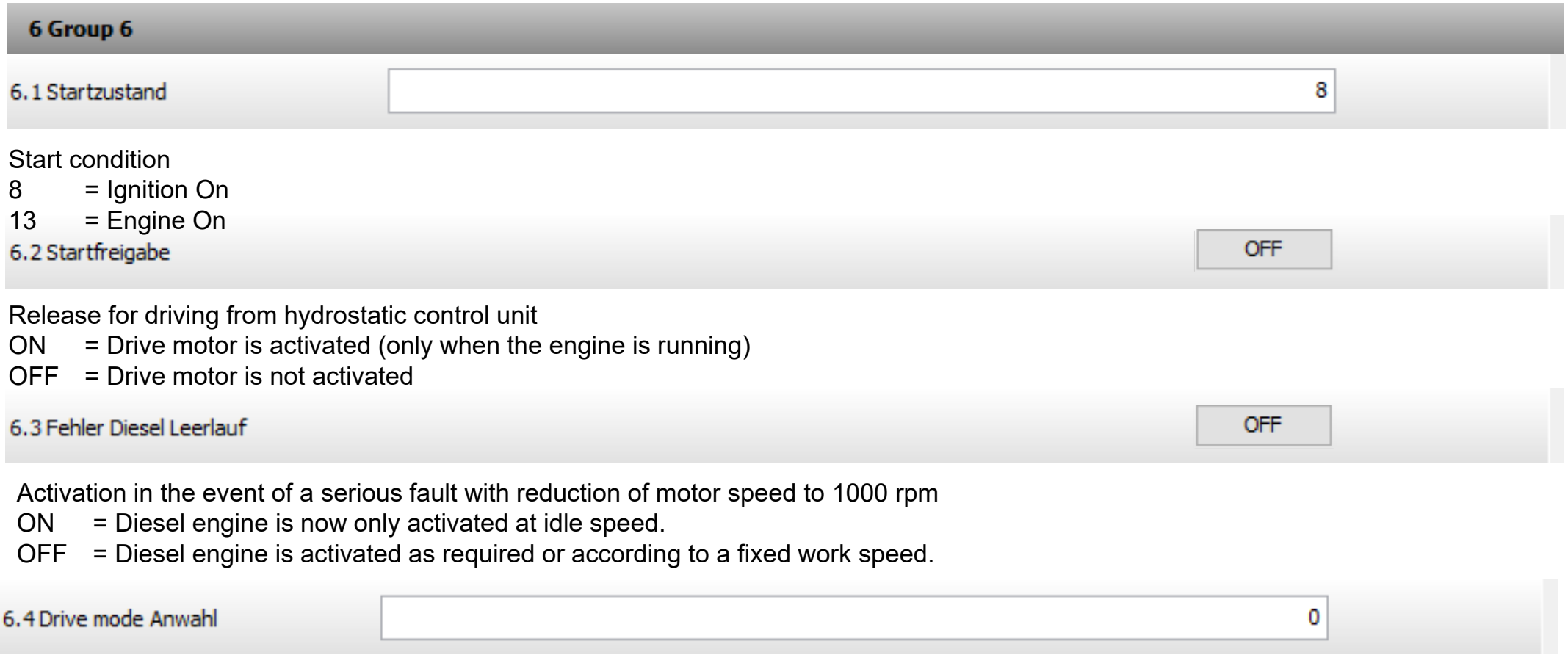
5.0.7 Process Data Bodas

The group “6 Group 6” contains the following process variables.

6 Group 6		
6.1 Startzustand	8	
6.2 Startfreigabe	OFF	
6.3 Fehler Diesel Leerlauf	OFF	
6.4 Drive mode Anwahl	0	
6.5 Drive mode Status	1	
6.6 Fahrprofilanwahl	0	
6.7 Fahrzeug Beschleunigung	0	mms2
6.8 Fahrzeug Geschwindigkeit	0,00	km/h

The process variables are explained on the following pages.

5.0.7 Process Data Bodas



Start condition
8 = Ignition On
13 = Engine On

Release for driving from hydrostatic control unit
ON = Drive motor is activated (only when the engine is running)
OFF = Drive motor is not activated

Activation in the event of a serious fault with reduction of motor speed to 1000 rpm
ON = Diesel engine is now only activated at idle speed.
OFF = Diesel engine is activated as required or according to a fixed work speed.

Display of the selected driving mode
0 = Ignition off
1 = Transport mode 1 speed level
2 = Work mode
4 = Transport mode 2 speed level

5.0.7 Process Data Bodas

Hako
Clean ahead

6 Group 6		
6.5 Drive mode Status	1	

Display of the current driving mode
1 = Transport mode 1 speed level
2 = Work mode
4 = Transport mode 2 speed level

6.6 Fahrprofilanwahl	0	

This process variable has no relevance for the service

6.7 Fahrzeug Beschleunigung	0	mms2

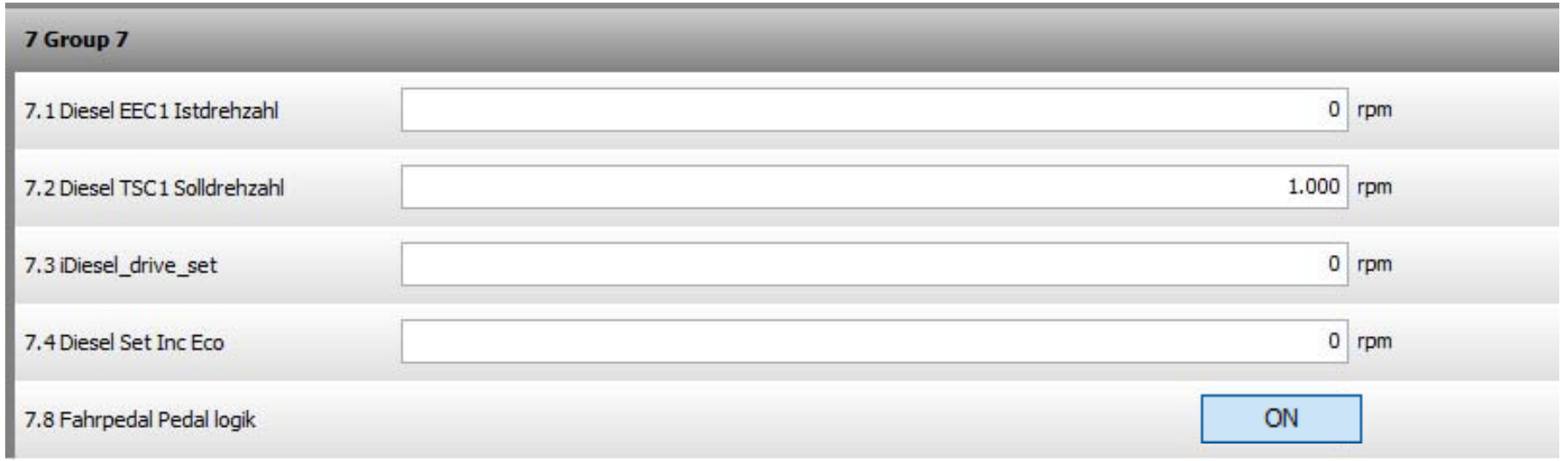
Display of current vehicle acceleration in mm/2²

6.8 Fahrzeug Geschwindigkeit	0,00	km/h

Display of current vehicle speed in km/h

5.0.7 Process Data Bodas

The group “7 Group 7” contains the following process variables.



The process variables are explained on the following pages.

5.0.7 Process Data Bodas

Hako
Clean ahead

7 Group 7		
7.1 Diesel EEC1 Istdrehzahl	0	rpm

Display of current speed of Hatz diesel engine in rpm

7.2 Diesel TSC1 Solldrehzahl	1.000	rpm

Display of current set speed of Hatz diesel engine in rpm

7.3 iDiesel_drive_set	0	rpm

This process variable has no relevance for the service.

7.4 Diesel Set Inc Eco	0	rpm

This process variable has no relevance for the service.

7.8 Fahrpedal Pedal logik	ON

This process variable has no relevance for the service.

5.0.7 Process Data Bodas

All process variables in group “8 Group 8” have no relevance for the service.

8 Group 8	
8.1 iSetpoint	0
8.2 Drive_pedal_cruise_s16	0
8.3 iLoadLimit_Factor	0
8.4 Pdcharac_iOutput	0
8.5 Pump_control_iPump_control	0
8.6 calculate_LoadLimit_iPump_out	0
8.7 iPump_inkl_RevKomp	0
8.8 iPump_regulated	0

The process variables are explained on the following pages.

5.0.7 Process Data Bodas

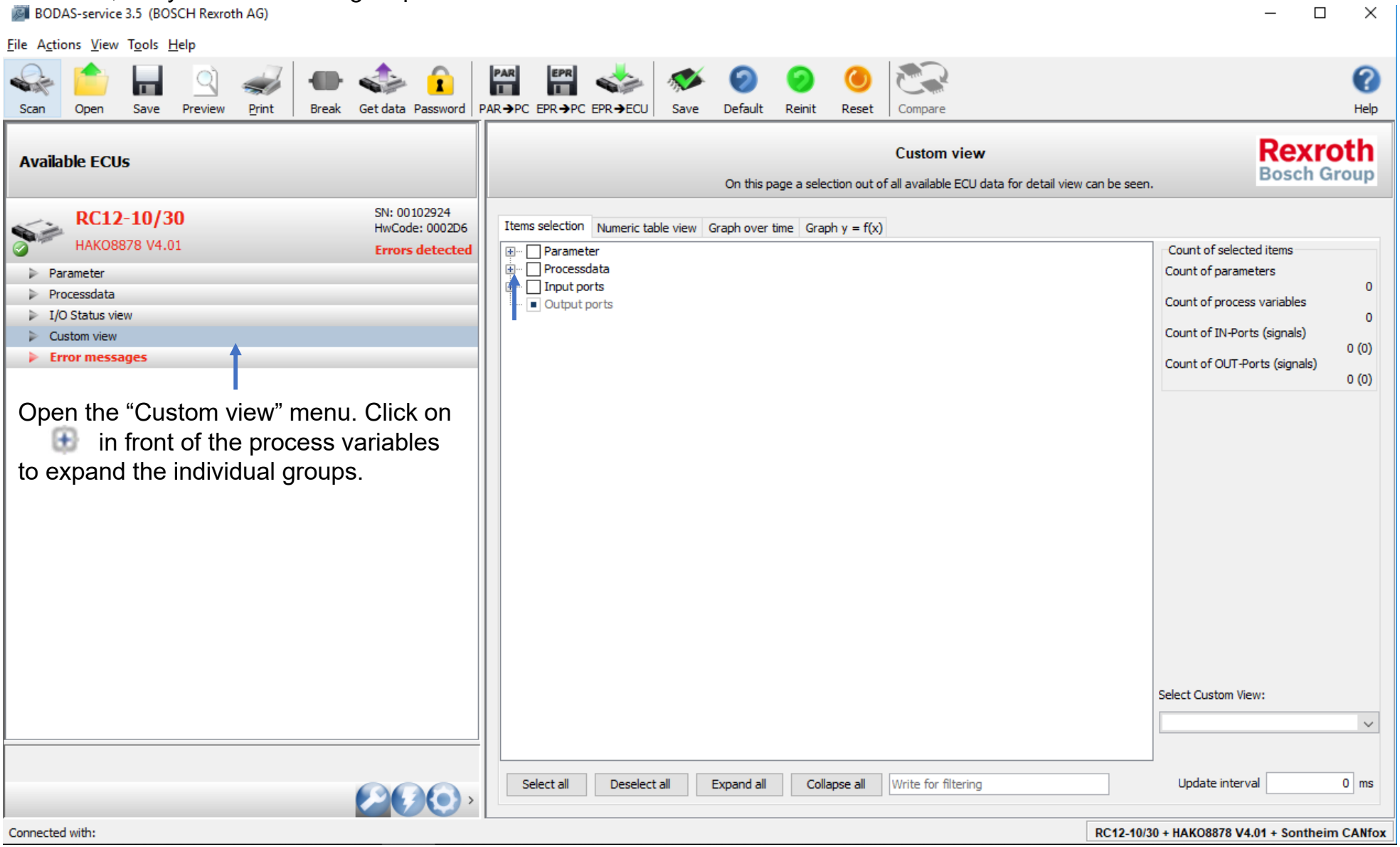
All process variables in group “9 Group 9” have no relevance for the service.

9 Group 9	
9.1 stFan_num_s16	0
9.2 rFanReq_pm_s16	0
9.3 stFanRev_b8	OFF
9.4 stDeactFan_b8	ON
9.5 tCoolWaterReplace_degC_s16	22
9.6 tAirIn_degC_s16	25
9.7 tHydOil_degC_s16	24
9.8 stDiesel_num_s16	0

The process variables are explained on the following pages.

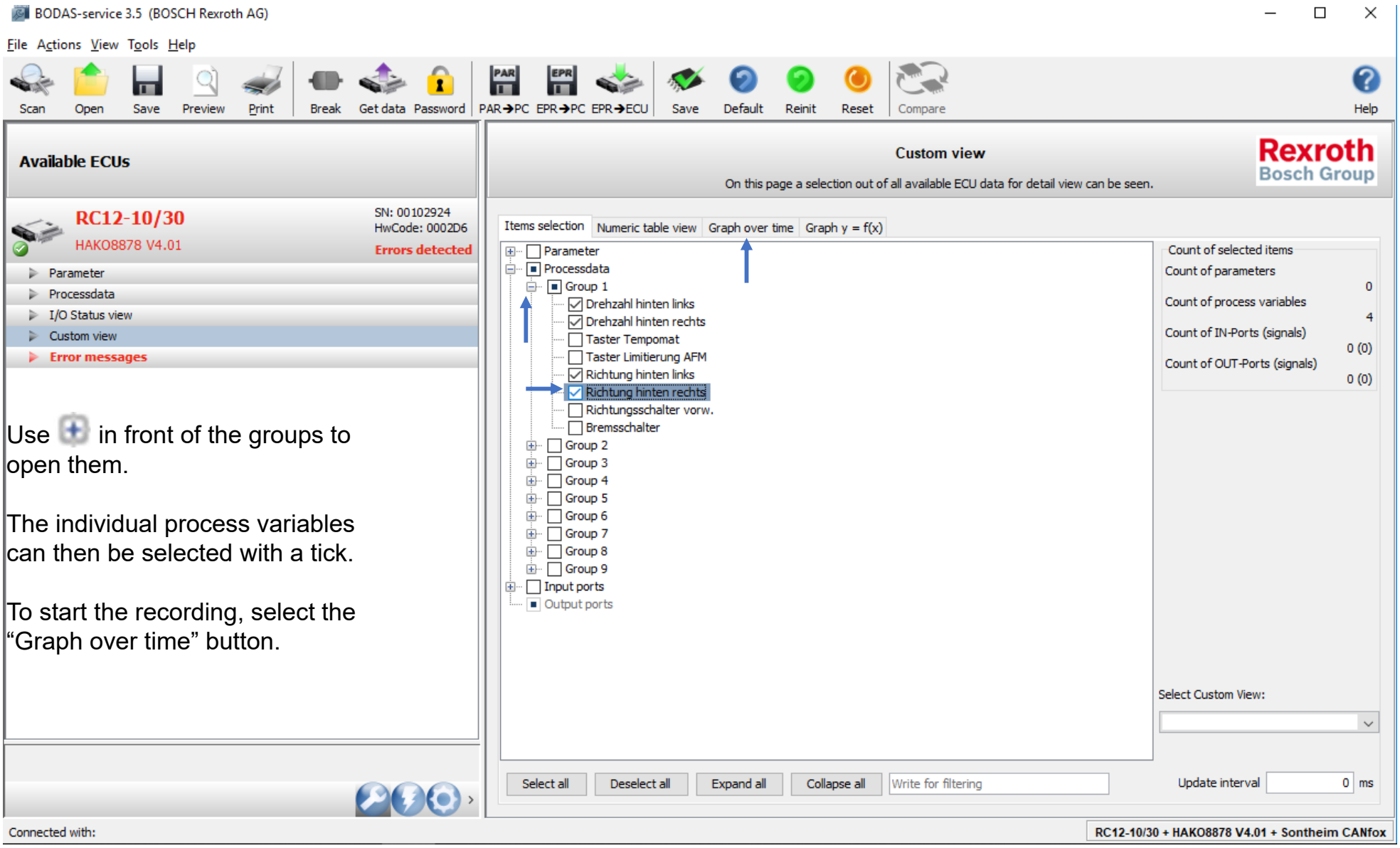
5.0.7 Process Data Bodas

With Bodas, it is possible to record the process variables during operation.
To do so, carry out the following steps in Bodas.



Open the “Custom view” menu. Click on ⊞ in front of the process variables to expand the individual groups.

5.0.7 Process Data Bodas

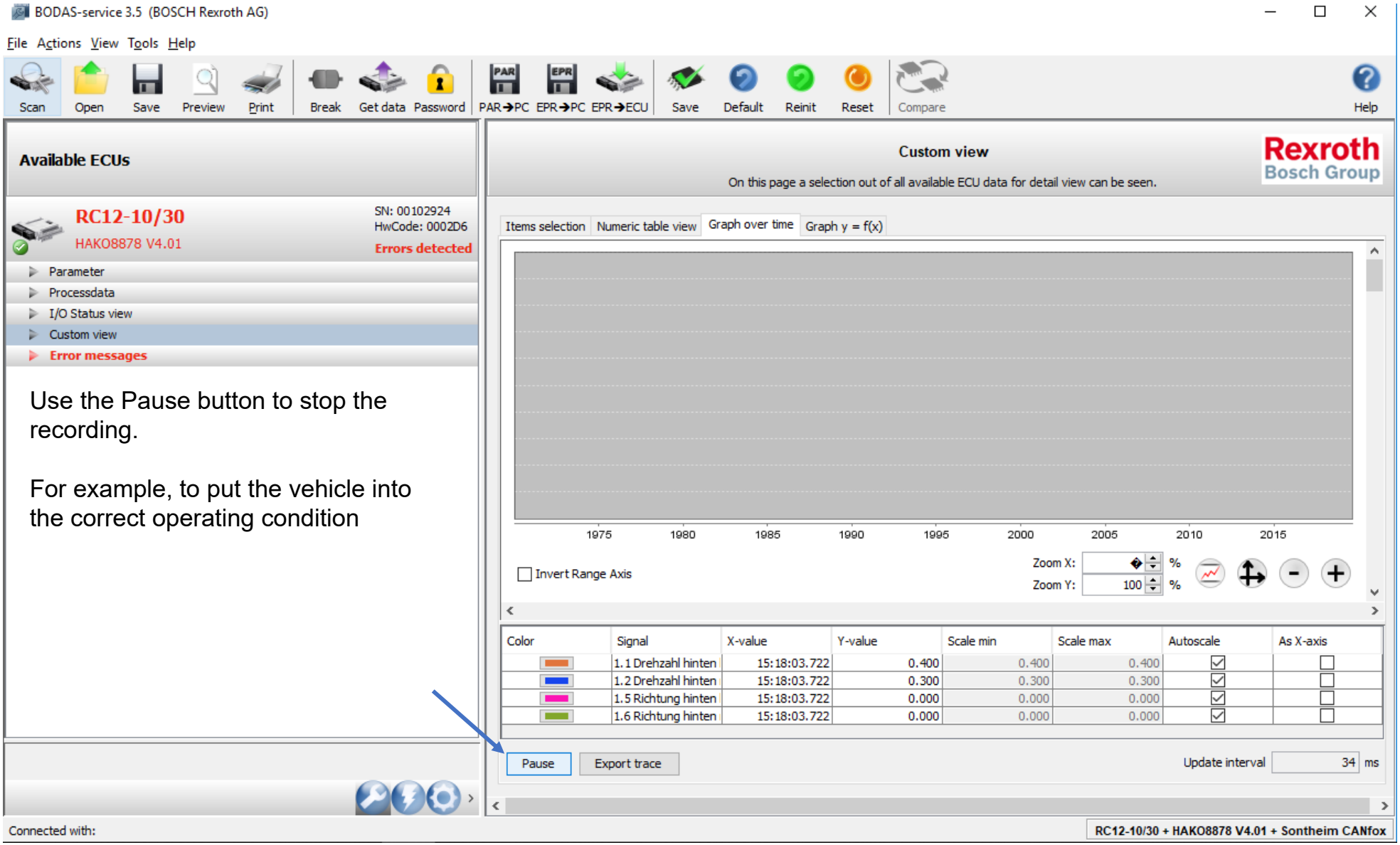


Use in front of the groups to open them.

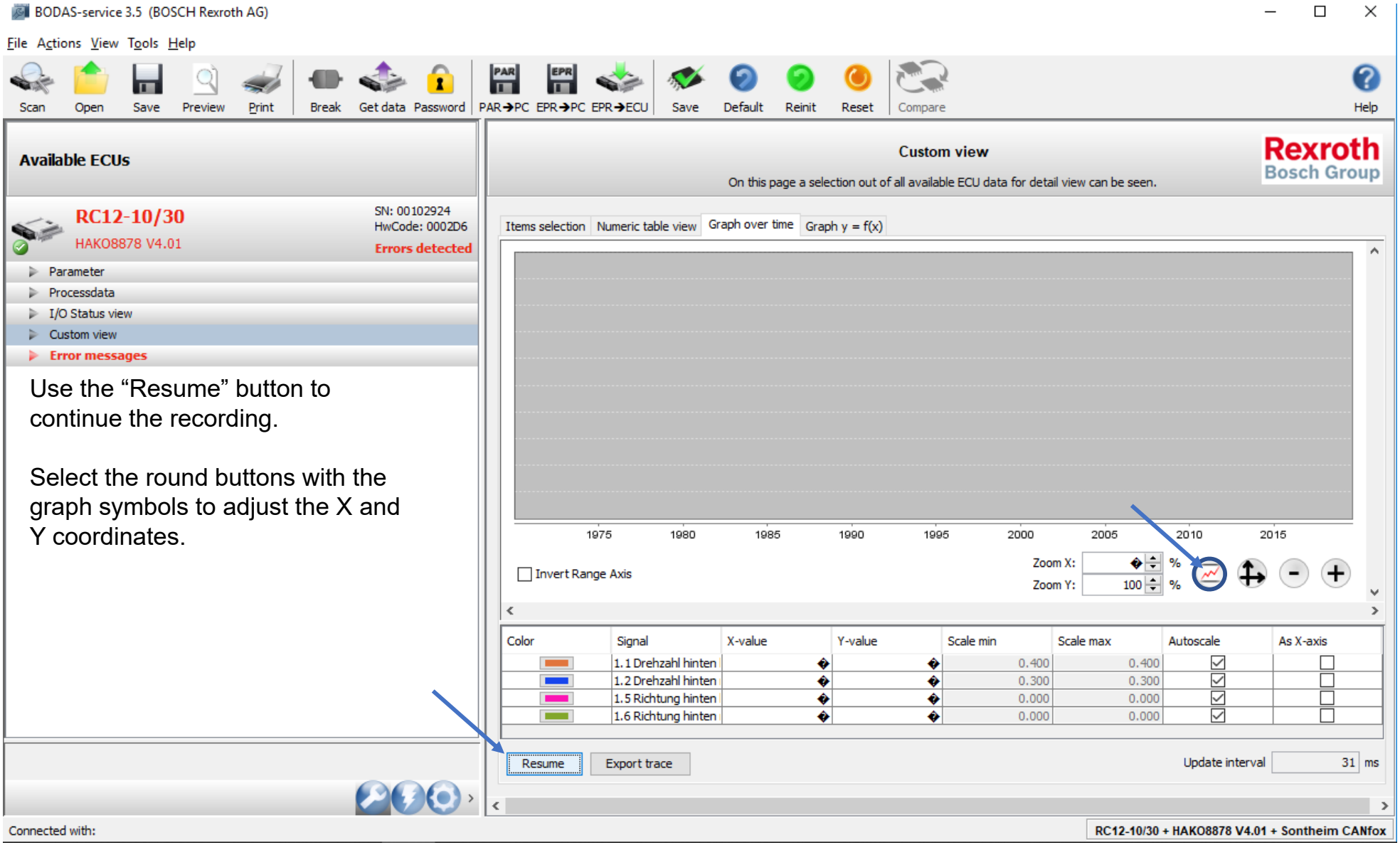
The individual process variables can then be selected with a tick.

To start the recording, select the “Graph over time” button.

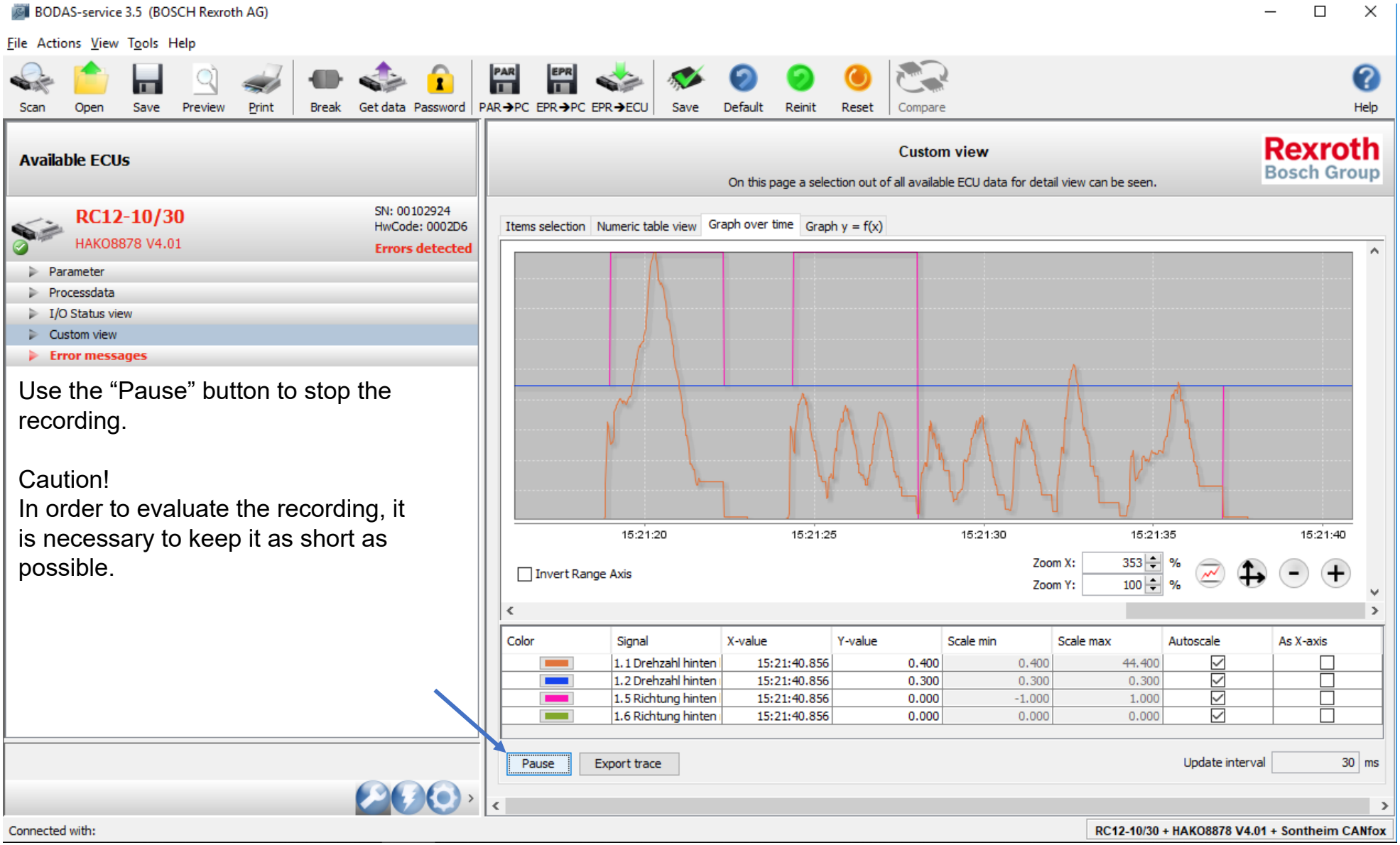
5.0.7 Process Data Bodas



5.0.7 Process Data Bodas



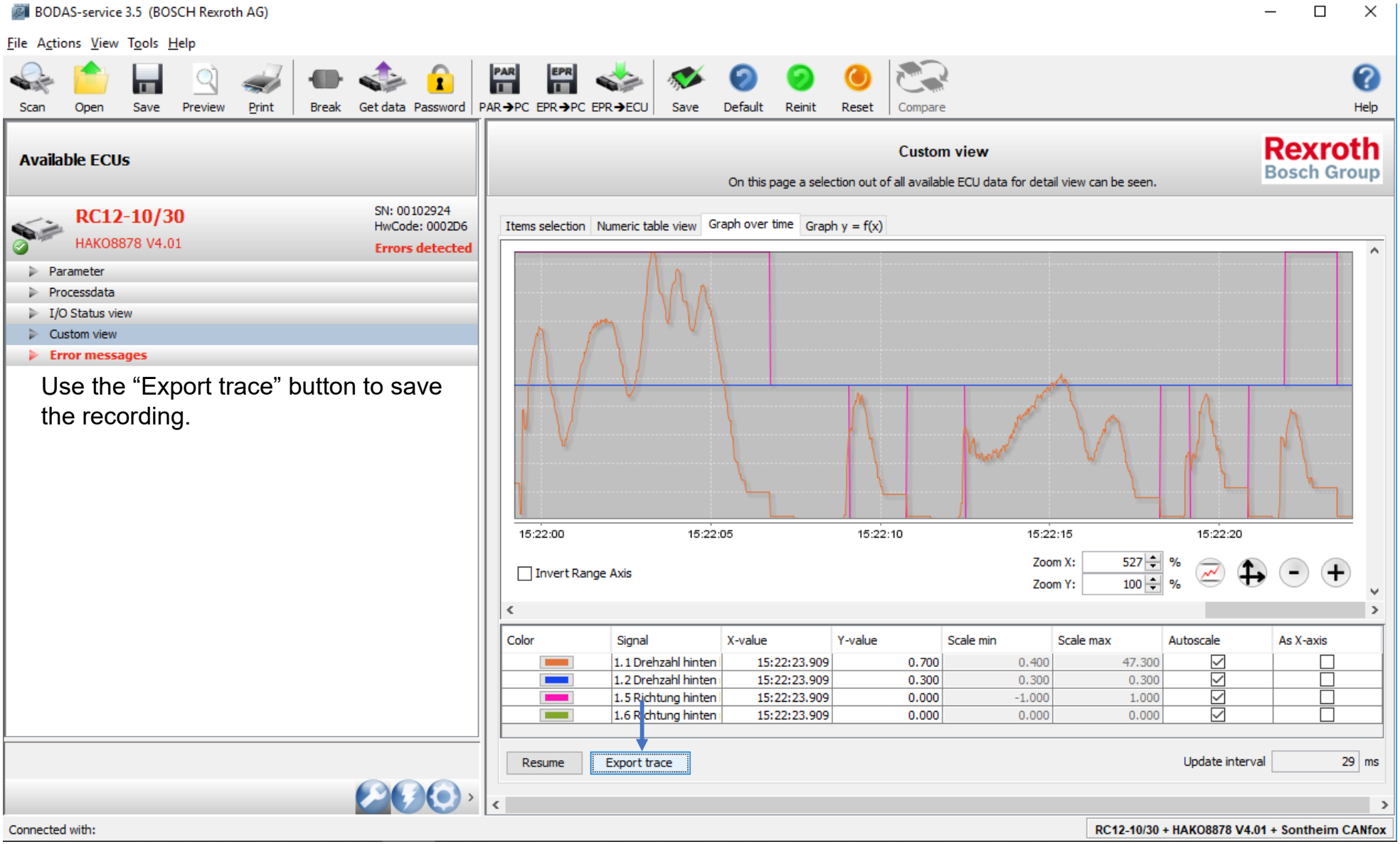
5.0.7 Process Data Bodas



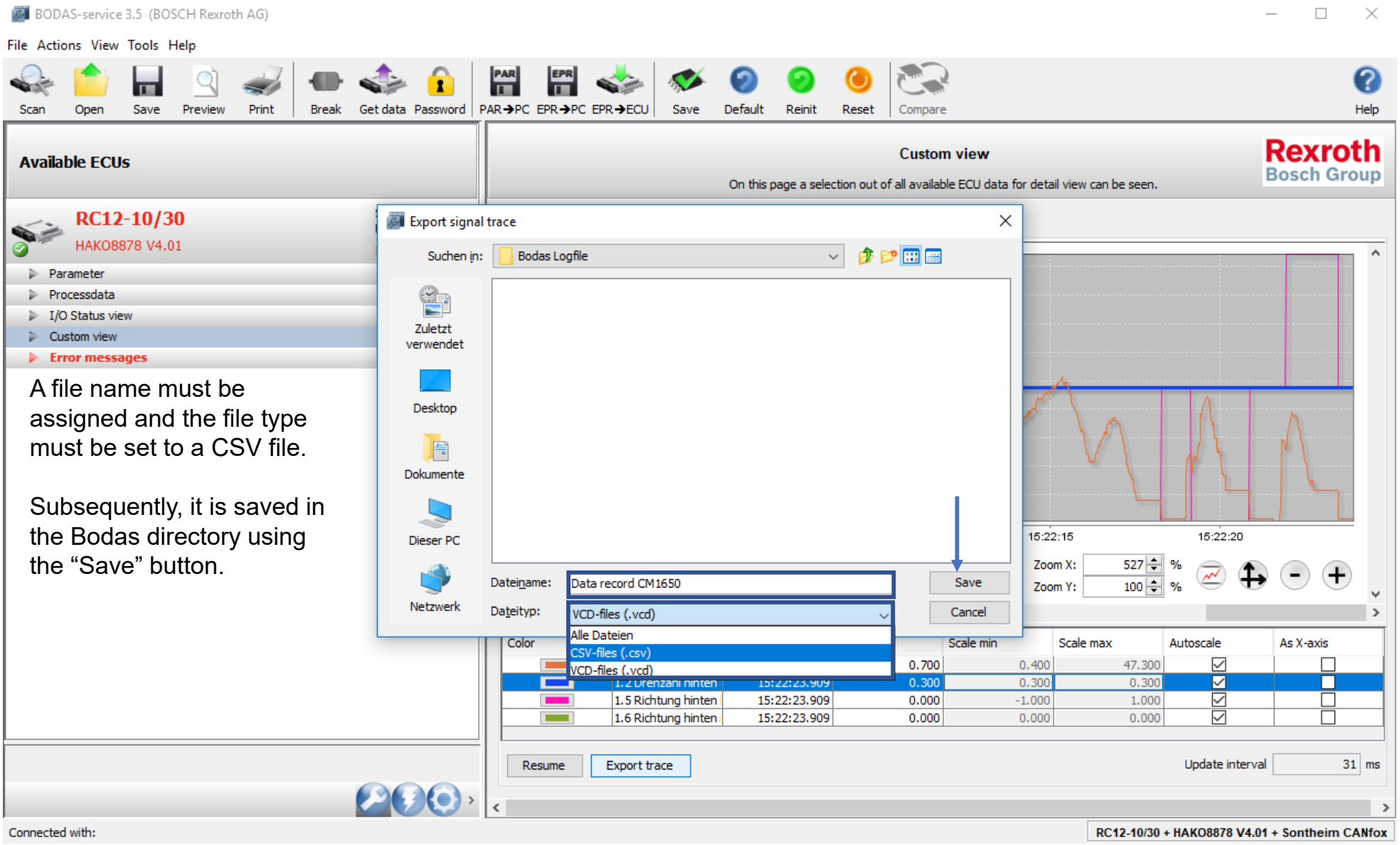
Use the “Pause” button to stop the recording.

Caution!
In order to evaluate the recording, it is necessary to keep it as short as possible.

5.0.7 Process Data Bodas



5.0.7 Process Data Bodas



A file name must be assigned and the file type must be set to a CSV file.

Subsequently, it is saved in the Bodas directory using the “Save” button.