

ComfoWay KNX – ETS setup guide

Follow the next simple steps to use your ComfoWay in line with ETS. Consider that the ComfoWay itself does not have a ETS product database, and is not directly configured through ETS. So in order to use all ETS features (dra pand drop, create filters, project control, ...) you will use the common trick to model you ComfoWay/air with a dummy device. This explanation is based on the GroupAddresses (GA) which are already configured by default in your ComfoWay gateway. (see list at the end of this document)



<u>Info</u>: if the IP-KNX gateway features of your ComfoWay are enabled (=default setting), then you can use the ComfoWay to connect your PC/ETS to the KNX bus: ETS will automatically detect its KNX-IP gateway on your LAN network. So you do not need to buy any other KNX-PC link (IP or USB or RS232) for your installation, to program your other KNX devices or use the ETS group monitor.

1 New Project

Create a new project (or open your existing project to add to)



2 Import New product into catalog

You will need a dummy product database in your catalog.

If you do not yet have such dummy device, then download the dummy database file from Gira (or any other available download). Alternatively, there is an ETS-app for dummy devices which you can buy.

To find the download just 'google': 'gira dummy knx application' and follow the first link (most probably): <u>http://www.gira.com/en/service/download/download.html?id=1084</u>

Open the import window and point the the downloaded Dummy device product database file:



| | | | | | - |
|------|--|-------------------------|-------------------------|----------------------------------|-----------------|
| nell | le A Importeer Producten | - | The second second | | |
| 6 | Vera Start 1 Bestand 2 On | nzetting $>$ 3 Producte | en 🔪 4 Talen 🔷 Sam | nenvatting 🔪 | |
| | datak Geef het volledige pad in voor l | net te importeren prodi | uctbestand of gebruik o | de verkenner knop om dit bestand | d te |
| | Nieu Tot nu ondersteunde bestander | n importeren (.vdxvd | 5 bestanden of .db data | abanken) of ETS4 .knxprod bestan | nden. |
| | Maak | | | | |
| | Nieu Maak Selecteer het te importeren | bestand: | | | |
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, then click 'Next' until the import is finished and confirmed.

Now in your catalog you will have vendor 'Gira giersiepen' with 2 dummy devices, a 'small' and a 'large' one.

3 Add a dummy bus device for your ComfoAir

Select type/vendor 'Gira giersiepen – Large Dummy application 900201' in the catalog and drag & drop it to add a new device.

| Configure the phy | ísical address, nam | ie and description | as for any device: |
|-------------------|---------------------|--------------------|--------------------|

| ETS4 [™] - ComfoWay Setup | Course in the line | | | | 1 - 140-0 | | X |
|------------------------------------|--------------------|-----------|--------------------|------------|-----------|--|----------|
| ETS Bewerken Werkomgeving | Inbedrijfstellin | g Diagnos | e Extra's Venst | er Help | | | |
| 👍 Nieuw 👻 🗽 Sluit Project | 📥 Druk af | 🖌 Mai | ak ongedaan 🛛 🔍 | Opnieuw | Werkomg | jeving 🔻 🛐 Catalogi 🛛 💽 Diagnose 👻 📑 🗛 | Help |
| Busdeelnemers 🔻 | | | | □ | 🖶 🖃 🗙 | ☆ ▼ | . |
| 🕂 Voeg Busdeelnemers toe 🔻 🗙 | Verwijder 🛛 👯 | Nieuwe Dy | namische Map | Zoek | ب | Eigenschappen | |
| A E Alle Busdeelnemers | Nummer A | Naam | Object Func | Beschrijvi | Groepadre | | |
| Dynamische Mappen | ■ ‡ 0 | 1 bit (1) | 1 bit | | * | Instellingen Opmerkingen Informatie | |
| ▲ 1.1.1 ComfoAir Dummy: th | ■ ‡ 1 | 1 bit (2) | 1 bit | | E | Naam: | -П |
| ■ ‡ 0: 1 bit (1) - 1 bit | ■ ‡ 2 | 1 bit (3) | 1 bit | | | Tedicidual Adam | -1 |
| ■ ‡ 1: 1 bit (2) - 1 bit | ■ ‡ 3 | 1 bit (4) | 1 bit | | | Individueel Adres: | |
| ■2:1 bit (3) - 1 bit | ■ ‡ 4 | 1 bit (5) | 1 bit | | | 1.1 . 1 Parkeer | |
| ■ 2 3: 1 bit (4) - 1 bit | ■\$ 5 | 1 bit (6) | 1 bit | | | Beschriiving: | |
| ■ Հ 4: 1 bit (5) - 1 bit | ■ ‡ 6 | 1 bit (7) | 1 bit | | | ComfoAir Dummy: this is a dummy device to be able to use the | - II |
| ■ 2 5: 1 bit (6) - 1 bit | ■‡ 7 | 1 bit (8) | 1 bit | | | ComfoAir over the ComfoWay gateway as any other device in | |
| ■ 2 6: 1 bit (7) - 1 bit | ■ ‡ 8 | 1 bit (9) | 1 bit | | - | ETS4 | |
| =>17.1 hit /01_1 hit | • | | | | + | | |
| Zoek 🔎 🖉 🖒 0/0 🌞 🗸 | Groepobjecter | / Parame | eters / Inbedrijfs | telling / | | | |
| Groepadressen 🔻 | | | | | ⊡ k∡ × | Product: Dummy | |

In this case the physical address was set to 1.1.1. Make sure to log in to you comfoWay, and set the the physical KNX bus address also to 1.1.1. Below is the popup you'll get with the default values. So verify them and modify 15.15.255 into 1.1.1 (or the address you use in your project)



| KNX connection | |
|----------------------------|--|
| General SRC filter | DST group filter DST indiv. filter Secure tunnel |
| Mode | TP-UART |
| ACK all group telegrams | |
| KNX address | 15.15.255 |
| KNX IP features | |
| Multicast IP | 224.0.23.12 |
| Multicast TTL | 1 |
| Multicast interface | eth0 |
| Maximum telegrams in queue | 100 |
| | |
| | |
| | OK Cancel |

<u>Note</u>: if you fail to do this (on a small KNX installation with 1 line), then this has no functional impact. However, in the group monitor, ETS will not recognise the telegrams as from the 1.1.1 ComfoWay/Air dummy, since ETS will see 15.15.255 as the address.

4 Add the default ComfoWay/ComfoAir groupadresses

4.1 Main and middle groups, then groupaddresses

- First add the main group '6'
- Then add the middle groups '6/0' and '6/1':

| Alle Busdeelnemers | Nummer + | Naam | Object Func | Beschrijvi | Groepadressen | Leng | | R | W | T | U | Data Ty | Pri |
|----------------------------------|----------------|------------|---------------|-----------------------------|---------------------|-------|------|---|------|---|------|---------|-----|
| Dynamische Mappen | ■‡ 0 | 1 bit (1) | 1 bit | | | 1 bit | С | R | W | Т | 22 | | Laa |
| 1.1.1 ComfoWay Dummy | ■ ‡ 1 | 1 bit (2) | 1 bit | | | 1 bit | С | R | W | T | - | | Laa |
| ■ ↓ 0: 1 bit (1) - 1 bit | ■# 2 | 1 bit (3) | 1 bit | | | 1 bit | С | R | W | Т | - | | La |
| ■ ↓ 1: 1 bit (2) - 1 bit | ■2 3 | 1 bit (4) | 1 bit | Voen Midder | aroenen toe | 11400 | | | - 10 | - | - | × | Laa |
| ■ 2 : 1 bit (3) - 1 bit | ■# 4 | 1 bit (5) | 1 bit | - vocg midder | igroepen toe | 1000 | - 10 | - | 100 | | | | La |
| ■ 2 3: 1 bit (4) - 1 bit | ■# 5 | 1 bit (6) | 1 bit | Aantal: Naa | m: | | | | | | Rije | en: | La |
| ■ ↓ 4: 1 bit (5) - 1 bit | ■‡ 6 | 1 bit (7) | 1 bit | 1 00 | mfoAir status | | | | | | | - + | Lai |
| ■ ↓ 5: 1 bit (6) - 1 bit | ■‡ 7 | 1 bit (8) | 1 bit | Maak Adresse | | | | | | | | | Laz |
| ■ 2 6: 1 bit (7) - 1 bit | ■ ‡ 8 | 1 bit (9) | 1 bit | Widak Adresse | | | | | | | | | Laa |
| ■+17:1 hit /9) , 1 hit | ∎‡ 9 | 1 bit (10) | 1 bit | Vul in (get Vul in (get) | oruik eerste vrije) | | | | | | | | Laz |
| ek 🔎 🔿 🖒 0/0 🏶 🕶 | Groepobjecten | / Parame | eters / Inbed | O Voeg toe | 0 - | | | | | | | | |
| roepadressen 🔻 | | | | Start met | 0 | | | | | | | | |
| - Voeg Middengroepen toe 🔻 🤰 | Verwijder | 🔓 Nieuwe | Dynamische M | | | | | F | OK | | An | nuleer | |
| :: Groepadressen | | Middeng | gr + Naam | | | | | _ | | | | | |
| Dynamische Mappen | 1 | 0 28 | ComfoAir c | ontrol | Geen | | _ | _ | _ | _ | _ | _ | |
| 88 6 ComfoAir control and status | | | | | | | | | | | | | |
| PP c /o c · c · c · c · c | | | | | | | | | | | | | |

- Finally add all the other group addresses you which to use, as listed in the communication object list for the ComfoWay at the end of this document.

4.2 Example 1: the Supply fan rating (is a status only)

- Add one group address: use the default group address for the object you want, as listed in the communication list. In this case: 6/1/26 for the 'Supply fan rate'



| Rijen: |
|--------|
| |
| |

Then use the ETS drag and drop to link it to the ComfoWay/Air dummy. Make sure you use a communication object with the corresponding data type as in the communication object list. Data type 5 and 5.001 = 1 byte, so in this case we choose to use object 28 of the ComfoWay dummy. Then select the Groupaddress and open the properties window: here you set the correct Data type (in this case 5.001)

| Groepadressen 🔻 | | | * - |
|---|---|---|--|
| 🕂 Voeg Groepadressen toe 👻 👗 | Verwijder 🦉 Nieuwe Dynamische Maj | Zoek P | ▲ Eigenschappen |
| Cooperational and the second s | Busdeelnemer Verzen te 1.1.1 ComfoAir D\S | den ACK (P Data Typ Geen percentage (0.C | Instellingen Opmerkingen Informatie Prioriteit: Laag Vlaggen Communicatie C Lees S Schrijf T Transmit Update Lees 8IJ Init |
| Zoek O(0 * Busdeelnemers Voeg Busdeelnemers toe Alle Busdeelnemers Dynamische Mappen | Verwijder Verwijder | P Zoek P ♥ cc Beschrijvi Groepadre | Data Type 4.* character 4.001 character (ASCII) 4.002 character (ISO 8859-1) 5.* 8-bit unsigned value 5.001 percentage (0100%) 5.003 angle (degrees) |
| ■ 1.1.1 ComroAir Dummy: th ■ 2 0: 1 bit (1) - 1 bit | 29 1 byte (2) 1 byte | 0/1/20 | Standaard |

- From now on, use the groupaddress 6/1/26 to link is to any other communication object of any other device

4.3 Example 2: a button to activate volume position 1 on the ComfoAir

- 'Volume1' is a binary command and status object used to set/know is volume position 1 is active on your ComfoAir. The respective default groupaddresses are: 6/0/66 and 6/1/66. And this time they are communciation objects of data type 1 or 1.001 or ... (=1 bit). So after:
 - o adding the 2 groupaddresses,
 - o drag-and-dropping then to a dummy 1-bit object
 - setting the data type in the GA property window to 1 or 1.001 you should see :
 - you should see



| Groepadressen 🔻 | | | ± | | *▼ |
|--|--|-------------------------|----------------|---------------------|--|
| 🕂 Voeg Groepadressen toe 🔻 👗 \ | /erwijder 🛛 👫 Nieuwe Dy | mamische Map | Zoek | P 7 | Eigenschappen |
| ▲ Groepadressen ▶ Dynamische Mappen ▲ 6 ComfoAir control and status ▲ 6/0 ComfoAir control ☆ 6/0/66 Volume 1 ▲ 6/1/26 Sypply fan rate ₩ 6/1/66 Volume 1 - status | Busdeelnemer (2) - 1 bit 1.1.1 ComfoAir | Verzenden r Dummy: S | ACK (P Geen | Data Typ on/off | Viaggen Communicatie Viaggen Communicatie Schrijf Transmit Update Lees Bij Init |
| Zoek 👂 🗘 🗅 0/0 🌞 🗸 | Associaties | | | Þ | Data Type 1.* 1-bit 1.001 co/off |
| Busdeelnemers 🔻 | /erwijder 🧗 🎼 Nieuwe Dy | mamische Map | Zoek | × * 9 | 1.002 boolean 1.003 enable |
| III Alle Busdeelnemers Solution Dynamische Mappen | Nummer∗ Naam ■✔ 0 1 bit (1) | Object Func B | eschrijvi | Groepadre 6/0/66 | 1.004 ramp 1.005 alarm |
| ▲ 1.1.1 ComfoAir Dummy: th ■20: 1 bit (1) - 1 bit | | 1 bit 1 bit | | 6/1/66 | Standaard |
| ■2 1: 1 bit (2) - 1 bit | ■2 3 1 bit (4) | 1 bit | | | Projecten |

- If you want to control volume 1 from a (toggle) button/switch, all that is left to do is to drag and drop 6/0/66 to the button write (this will by default become the sending GA). If you use a toggle button, then after that also drag and drop 6/1/66 to the write object (but nonsending), so that your button is aware of changes in status ... but that's identical to how you would configure for instance a light actor from a toggle button. The configuration of the switching/light actor would then look something like this:

| Groepadressen 🔻 | _ | | | | A V [| 9 ⊾" × |
|---|------------------|-------------------|------------------|--------------|----------------|--------------------|
| 🕂 Voeg Groepadressen toe 🔻 👗 | Verwijder | 👫 Nieuwe | Dynamische Map | | Zoek | <mark>۶</mark> ۲ |
| ▲ 🖪 Groepadressen | Obje | :t ≜ | Busdeelnemer | | | |
| Dynamische Mappen | ■‡ 0: Ou | tput A - Switch | 1.1.2 AT/S4.16.1 | 4f-Switch ac | tuator,16A,N | VDRC |
| 🔺 🔡 6 ComfoAir control and status | ■ 2 1:1 k | it (2) - 1 bit | 1.1.1 ComfoAir D | ummy: this i | s a dummy (| ComfoAir D |
| ▲ 器 6/0 ComfoAir control | | | | | | |
| 🔀 6/0/66 Volume 1 | | | | | | |
| ▲ 器 6/1 ComfoAir status | Ļ | | | | | |
| 6/0/66 Volume 1 6/1/26 Sypply fan rate | | | | | | |
| 🔀 6/1/66 Volume 1 - status | | | | | | |
| | | | | | | |
| | | | | | | |
| | • | | | | | ÷. |
| Zoek 🔎 🔇 🗅 0/0 🏶 🕶 | Associati | es / | | | | |
| Busdeelnemers 🔻 | | | | 1 | ▲ ▼ _ j | ⊑ e ⁿ × |
| 🕂 Voeg Busdeelnemers toe 👻 🗙 | Verwijder | 👫 Nieuwe | Dynamische Map | | Zoek | ₽ ₹ |
| A 🖪 Alle Busdeelnemers | Gro | epadres | Verzenden 🔻 | ACK (P | Centraal | Beschrijv |
| Dynamische Mappen | 88 6/0 | '66 Volume 1 | S | Geen | Geen | |
| ▷ 📲 1.1.1 ComfoAir Dummy: th | 88 6/1/ | '66 Volume 1 - st | atus | Geen | Geen | |
| ▲ ▲ 1.1.2 AT/S4.16.1 4f-Switch | | | | | | |
| ■2 0: Output A - Switch | 1 | | | | | |
| ■2 1: Output B - Switch | | | | | | |
| ■2 2: Output C - Switch | | | | | | |

4.4 Additional group addresses

You can now add as many objects and group addressesn you want or need. At some point you can get into the situation where the ComfoWay/Air dummy device is 'full': there is no more free 1-byte communication object to add another 1-byte function.

Here you can do 2 things:



- if you are a purist add a 2nd dummy device for your ComfoWay ComfoAir gateway and proceed.
- If you are more pragmatic: just reuse a 1 bit object <u>of the same datatype</u>. Afterall, the dummy device is not really used to programm the ComfoWay device, but just to hold assignments and to verify datatypes, and to keep your project clean. If you use a lot of communication object, you would typically group them:
 - o All 4 volumeX commands to one bit and the 4 volumeX status to another
 - Or the volume1 command and status together, the volume2 command and status, etc ...

Use your own preference to do so.

5 Non default Group Addresses

If you wish, you can also:

- Add other group addresses to the same ComfoWay communication object (on top of the default ones)
- Modify the default group addresses (not recommended if you wish to keep using the embedded visualisation for your ComfoAir)

There are two step you need to do:

- Add the Group addresses to your ETS project, just as before (create GA and link to dummy device)
- Login to your ComfoWay, go to the Configuration page and into the KNX and Vizu configuration. Then in the scripts tab you click the edit icon of the ComfoWay daemon script to open the script editor.

| hnder Advanced WHR KNX Configu | ration | Neighbours: Select neighbour | | Start page | |
|--------------------------------|---------------------------------|-------------------------------------|--------|------------|-------------|
| cripting Objects Object lo | gs Vis. structure Visualization | Vis. graphics Utilities Alerts Logs | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Script name 🔺 | Sleep interval (seconds) | Description | Editor | Active | |
| WHR daemon | 0 | | 2 | 0 | |
| | | Open the edit | or | Start/st | op the gate |
| | | | | | |

Example

If you wish to add GA 1/2/3 to the 'volume' command communication object then modify in the editor:

```
whr.GA.command={
    volume = {'6/0/0'},
whr.GA.command={
```

into

```
hr.GA.command={
    volume = {'6/0/0', '1/2/3'},
```

and click save and close.



Version : V1.8

Communication objects implemented

| | | | | | | | | | Ra | nge |
|-------------|---------------------------------|--------------|-------|--------|---|--|---------------------------------|-----------|----------|--------------|
| Object name | Information in object | data type | Write | Status | Default Status update interval [s] | Usage | Menu & manual reference code | Luxe only | Write GA | Status GA |
| volume | Volume control | 5 | 1 | 1 | 1 | Allowed values: 0, 1, 2, 3, 4 0 = Away 4 = Auto Other values: ignored | | | 6/0/0 | 6/1/0 |
| volumeMan | Manuel volume control | 5 | 1 | 1 | 1 | Allowed values: 0, 1, 2, 3 0 = Away Other values: ingored | | | 6/0/60 | 6/1/60 |
| volumeAuto | Automatic volume control | 1 | 1 | 1 | 1 | 1 = On 0 = Off | | | 6/0/61 | 6/1/61 |
| volume0 | Manuel volume control - Away | 1 | 1 | 1 | 1 | 1 = On 0 = Off (for status only. 'O' command has no effect) | | | 6/0/65 | 6/1/65 |

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6/X/X default



| volume1 | Manuel volume control - pos 1 | 1 | 1 | 1 | 1 | 1 = On 0 = Off (for status only. 'O' command has no effect) | | 6/0/66 | 6/1/66 |
|-------------|----------------------------------|-------|---|---|-------|--|-----|-----------|--------|
| volume2 | Manuel volume control - pos 2 | 1 | 1 | 1 | 1 | 1 = On 0 = Off (for status only. 'O' command has no effect) | | 6/0/67 | 6/1/67 |
| volume3 | Manuel volume control - pos 3 | 1 | 1 | 1 | 1 | 1 = On0 = Off (for status only. 'O' command has no effect) | | 6/0/68 | 6/1/68 |
| Tcomfort | Comfort temperature | 9.001 | 1 | 1 | 1 | [°C] Allowed range 12-28°C per 0,5 °C Other values within range are rounded to nearest half. Invalid values are dropped. | P41 | 6/0/1 | 6/1/1 |
| airSupply | Supply air | 1.011 | 1 | 1 | 5 | (des)activates air supply fan | | 6/0/2 | 6/1/2 |
| airExhaust | Extract air | 1.011 | 1 | 1 | 5 | (des)activates air exhaust fan | | 6/0/3 | 6/1/3 |
| filterReset | Filter timer reset | 1 | 1 | | | 1=reset | P77 | 6/0/5 | 6/1/5 |
| errorReset | Error reset (of ComfoD) | 1 | 1 | | | 1=reset | P74 | 6/0/6 | 6/1/6 |
| filterTime | filter Dirty weeks | 5 | 1 | 1 | 3.600 | number of weeks clogged filter alarm | P24 | 6/0/7 | 6/1/7 |



| RS232 | RS232 communication mode | 5 | 1 | 1 | - | Do not use unless for specific advanced needs, can disturb normal funtionning. Only use when instructed, 1=only PC, 3=pc_master, 4=pc_logmode, 0=none | | | 6/0/8 | 6/1/8 |
|----------------|--------------------------|-------|---|---|------|---|---------------|---|-------|--------|
| T1 | T1 | 9.001 | | 1 | 60 | [°C] | P45 | | | 6/1/11 |
| T2 | T2 | 9.001 | | 1 | 60 | [°C] | P46 | | | 6/1/12 |
| Т3 | Т3 | 9.001 | | 1 | 60 | [°C] | P47 | | | 6/1/13 |
| T4 | T4 | 9.001 | | 1 | 60 | [°C] | P48 | | | 6/1/14 |
| Tge | T ground exhanger | 9.001 | | 1 | 60 | [°C] | P49 | Х | | 6/1/21 |
| Tah | T after heater | 9.001 | | 1 | 60 | [°C] | P40 | Х | | 6/1/22 |
| Tkh | | 9.001 | | 1 | 60 | [°C] | P44 | Х | | 6/1/23 |
| Tenth | T enthaply | 9.001 | | 1 | 60 | [°C] | | Х | | 6/1/24 |
| Menth | Moisture enthalpy | 5.001 | | 1 | 60 | [%] | | Х | | 6/1/25 |
| supplyFan | Supply fan rate | 5.001 | | 1 | 10 | [%] | P39 | | | 6/1/26 |
| exhaustFan | Exhaust fan rate | 5.001 | | 1 | 10 | [%] | P38 | | | 6/1/27 |
| bypassValve | Bypass valve | 5.001 | | 1 | 10 | [%] | | | | 6/1/28 |
| preheatValve | Preheat valve | 5.001 | | 1 | 10 | [%] | | | | 6/1/29 |
| errorActual | Error Actual present | 1.005 | | 1 | 60 | | | | | 6/1/30 |
| errorLast | Error Last present | 1.005 | | 1 | 60 | | P71-1 - P71-4 | | | 6/1/31 |
| filterDirty | Filter dirty | 1.005 | | 1 | 3600 | | | | | 6/1/32 |
| errorActualStr | Actual error string | 16 | | 1 | 60 | String: diagnostic code from manual | | | | 6/1/33 |



| errorLastStr | Last error string | 16 | | 1 | 60 | String: diagnostic code from manual | P71-1 - P71-4 | | | 6/1/34 |
|--------------------|-------------------------|-------|---|---|------|--|---------------|---|--------|--------|
| timerA | Timer A | 12 | | 1 | 3600 | [h] | | | | 6/1/40 |
| timer1 | Timer 1 | 12 | | 1 | 3600 | [h] | | | | 6/1/41 |
| timer2 | Timer 2 | 12 | | 1 | 3600 | [h] | | | | 6/1/42 |
| timer3 | Timer 3 | 12 | | 1 | 3600 | [h] | | | | 6/1/43 |
| timerFrost | Timer frost | 12 | | 1 | 3600 | [h] | | | | 6/1/44 |
| timerPreheat | Timer Preheat | 12 | | 1 | 3600 | [h] | | | | 6/1/45 |
| timerBypass | Timer Bypass | 12 | | 1 | 3600 | [h] | | | | 6/1/46 |
| timerFilter | Timer filter | 12 | | 1 | 3600 | [h] | | | | 6/1/47 |
| timerFilterWk | Timer filter in weeks | 5 | | 1 | 3600 | [weeks] | | | | 6/1/48 |
| errorComm | Communication error | 1.005 | | 1 | 30 | RS232 comm error in gateway to WHR unit | | | | 6/1/50 |
| bypassActive | Bypass active | 1 | | 1 | 10 | | P90-P96 | | | 6/1/80 |
| EWTActive | Ground heat exch active | 1 | | 1 | 10 | | P90-P96 | | | 6/1/81 |
| frostActive | Frost protection active | 1 | | 1 | 10 | | P90-P96 | | | 6/1/82 |
| afHeatActive | After heater active | 1 | | 1 | 10 | | P90-P96 | | | 6/1/83 |
| hoodActive | Hood mode active | 1 | | 1 | 10 | | P90-P96 | | | 6/1/84 |
| analog AutoMode | Analog Auto mode | 1 | 1 | 1 | 60 | switches on/off analog auto mode control | | X | 6/0/70 | 6/1/70 |
| analog1set | Analog setpoint 1 | 5.001 | 1 | 1 | 60 | [%] | P812 | Х | 6/0/71 | 6/1/71 |
| analog2set | Analog setpoint 2 | 5.001 | 1 | 1 | 60 | [%] | P822 | Х | 6/0/72 | 6/1/72 |
| analog3set | Analog setpoint 3 | 5.001 | 1 | 1 | 60 | [%] | P832 | Х | 6/0/73 | 6/1/73 |
| analog4set | Analog setpoint 4 | 5.001 | 1 | 1 | 60 | [%] | P842 | Х | 6/0/74 | 6/1/74 |
| analog1value | Analog value 1 | 5.001 | | 1 | 60 | [%] | P816 | Х | | 6/1/75 |
| analog2value | Analog value 2 | 5.001 | | 1 | 60 | [%] | P826 | Х | | 6/1/76 |
| analog3value | Analog value 3 | 5.001 | | 1 | 60 | [%] | P836 | Х | | 6/1/77 |
| analog4value | Analog value 4 | 5.001 | | 1 | 60 | [%] | P846 | Х | | 6/1/78 |



| exhaustFanV oIA | Exhaust Fan Speed setting - A | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P30 | 6/0/94 | 6/1/94 |
|--------------------|----------------------------------|-------|---|---|------|---|-----|--------|--------|
| exhaustFanV ol1 | Exhaust Fan Speed setting - 1 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P31 | 6/0/95 | 6/1/95 |
| exhaustFanV ol2 | Exhaust Fan Speed setting - 2 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P32 | 6/0/96 | 6/1/96 |
| exhaustFanV ol3 | Exhaust Fan Speed setting - 3 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P33 | 6/0/97 | 6/1/97 |
| supplyFanVol A | Supply Fan Speed setting - A | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P34 | 6/0/90 | 6/1/90 |
| supplyFanVol 1 | Supply Fan Speed setting - 1 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P35 | 6/0/91 | 6/1/91 |
| supplyFanVol 2 | Supply Fan Speed setting - 2 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P36 | 6/0/92 | 6/1/92 |
| supplyFanVol 3 | Supply Fan Speed setting - 3 | 5.001 | 1 | 1 | 60 | valid [%] values as per manual, invalid values dropped | P37 | 6/0/93 | 6/1/93 |
| boostActive | Boost mode active | 1 | 1 | 1 | 10 | | P17 | 6/0/86 | 6/1/86 |
| boostTime | Boost mode duration | 5 | 1 | 1 | 3600 | valid [min] values as per manual: 0- 120; other values dropped | P27 | 6/0/85 | 6/1/85 |