

# Danfoss Ally Cloud

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## Supported device types and versions

The Danfoss Ally Cloud protocol enables communication with Danfoss Ally cloud services (<https://developer.danfoss.com>) using the Danfoss Ally API (<https://developer.danfoss.com/catalog/danfoss-ally-api/danfoss-allytm-api>).

The Danfoss Ally Cloud protocol is implemented as an ESL script (*E.Danfoss\_Cloud*) using the unit *E.Danfoss\_Cloud.unit* and the *curl* utility to communicate with the cloud. Subsequently, the data is parsed in the ESL script and stored in structured variables:

- SV.Danfoss\_Ally\_Gateway - "Danfoss Ally™ Gateway" type devices
- SV.Danfoss\_Ally\_Radiator\_Thermostat - "Danfoss Ally™ Radiator Thermostat" type devices
- SV.Danfoss\_Icon\_RT - "Icon RT" type devices (Room Thermostat)
- SV.Danfoss\_Icon\_Zigbee\_Module - "Icon Zigbee Module" type devices
- SV.Danfoss\_Zigbee\_Repeater - "Danfoss Zigbee Repeater" type devices

When a new device is found (unique identifiers are found in the "id" columns), the corresponding structured variable is automatically resized and the new device is inserted into the added row.

Note: we recommend increasing the size of the mentioned structured variables in advance according to the approximate number of individual types of devices so that the system is not burdened by the constant gradual increase of their size when parsing the data for the first time.

The script is extensible and it is possible to implement the parsing of other types of devices and other attributes of existing devices.

Working with multiple user accounts is supported. Each Danfoss device is registered to a specific user account and the structured variables mentioned above contain the first column *idCred*, in which the account ID is listed for each device (index into the structured variable *SV.Danfoss\_Credentials* with accounts).



## Danfoss cloud configuration and access rights to devices

- In the Danfoss Ally mobile application (<https://www.danfoss.com/sk-sk/campaigns/dhs/smart-heating/danfoss-ally>) it is possible to connect devices to a registered Danfoss account. Registration is done when installing the mobile application and the account is identified by an e-mail address (e.g. [ipesoft@ipesoft.sk](mailto:ipesoft@ipesoft.sk)).  
Note: apparently only the owner (Home Owner) and an administrator (Administrator) roles have the right to access devices via the "Danfoss Ally API" interface. Other roles do not have this right.
- Subsequently, creating a user account (for the same e-mail address) at <https://developer.danfoss.com> is necessary.
- After logging in to the account, it is necessary to create an application by clicking the Apps item (<https://developer.danfoss.com/user/apps>) and clicking the "Add app" button.
- The "Danfoss Ally API" interface must be added when creating the application,

- After creating the application, the situation is as follows:

App Info/Credentials

Analytics

D2000\_Test Details

Created: 4 days ago    Last Updated: 0 sec ago

Description



Test connection of D2000



Edit App Info

Delete App

Credentials

Issued: 4 days ago    Expiration date: Never    Key Status: **APPROVED**

Consumer Key: .....  

Consumer Secret: .....  

Add key

- The items "Consumer Key" and "Consumer Secret" must be copied and the string *Consumer Key:Consumer Secret* must be created and converted to BASE64, e.g. using <https://www.base64encode.org>

Example: if "Consumer Key" is M2i51jpJrgGpKr4TfwnI0XMLDD1nKMU9G and "Consumer Secret" is 1VT80QedtXJE3Xcu72LUjlvMwyvgVWziQ3NHEg, then the following string must be converted

M2i51jpJrgGpKr4TfwnI0XMLDD1nKMU9G:1VT80QedtXJE3Xcu72LUjlvMwyvgVWziQ3NHEg and the BASE64 result is TTJpNTFqcEpyZ0dwS3I0VGZ3bkkwWE1MREQxbktNVTIHOjFWVDgwUWVkdFhKRTNYY3U3MkxVakt2TXd5dmdWV3ppUTNOSEVn

- The result must be inserted into the structured variable *SV.Danfoss\_Credentials* in the *access\_key* column. So this structured variable will have as many rows as user accounts. We recommend entering the identification of individual user accounts (e.g. e-mails) in the *account* column.
- Subsequently, in the *E.Danfoss\_Cloud* script, it is possible to set a different trigger for starting the reading than the *Min* object used:

ON CHANGE Min GOTO TriggerChanged ; this trigger can be replaced e.g. by a custom evaluated tag

- The test of writing (increasing the temperature setpoint for the first "Room Thermostat" / "Radiator Thermostat" devices by 0.1°C and then setting the original temperature) is in the *E.Danfoss\_TestWrite* script.

## Literature

- [Danfoss Ally](#)
- [Danfoss Ally API](#)



### Blog

You can read a blog about Danfoss Ally Cloud - [Communication - Danfoss cloud](#)

## Document revisions

- Ver. 1.0 - March 25th, 2024 - Document creation.



### Related pages:

[Communication protocols](#)