

Hobby API – Technical documentation



Scope

The integrator API allows control of the Niko Home Control platform by external systems, connected on the same local network.

The integrator API is intended for professional use by system integrators.

It offers following functionality:

- Access to the Niko Home Control Locations list
- Access to the Niko Home Control devices list
- Control of the Niko Home Control devices
- Status updates of the Niko Home Control devices
- Notification message updates from the Niko Home Control installation

This document details the API technical information and is intended for developers.

Document History

Version	<u>D</u> ate	Description
1.0	19/03/2019	Initial Version
1.1	23/09/2019	Support for Wireless Smart Hub Starting from release 2.6.x: Additional property for All Of Action Free Start Stop Action House Mode Action Mood Action
1.2	23/10/2020	Removed: internal parameter for Energy Metering module Added Generic ZigBee Smart plug Added Niko ZigBee Smart Plug Added Generic ZigBee Smart plug Added Generic ZigBee Smart plug Added NHC Touch switch thermostat (Digital Black) Added NHC Virtual flag Changed: Typo in notifications examples Added: reference to the programming software manual on the Niko guide
1.3	30/08/2023	Added: Device model - Generic ZigBee Heating/Cooling Implementation Added: Device model NHC Player Status Action Added: Device model - NHC Thermo switch Added: Device model - NHC Virtual Thermostat Added: Device model - NHC NHC ZigBee Electricity Metering module (with clamp) Added in: Device model - Generic Zigbee Smart plug Property Status Added in: Device model - NHC Smart plug Parameter Groupid Parameter Groupid1-Groupid25 Property Status



Version	<u>D</u> ate	Description
		Added in: Device model - NHC All Off Action Property AllStarted Added in: Device model - NHC Free Start Stop Action Property AllStarted Added in: Device model - NHC House mode Action Property AllStarted Added in: Device model - NHC Mood Property AllStarted Added in: Device model Sonos Speaker Parameter API version Parameter API version Parameter Software version Added in Device model - NHC Access Control Action Property Callpending Property CallAnswered Added in Device model - NHC motor Action Property LastDirection Added: several parameters in various devices which are visible but not in use by the API Changed: several typo's
1.4	25/03/2025	Added "Iconcode" in parameter of various device models Added support for retrieving measurement data (for device properties having a logging feature) Added Device model - NHC Conditional action Device model - NHC PeakMode action Device model - NHC SolarMode action Device model - NHC Timeschedule action Device model - ZigBee Battery Metering Clamp Device model - NHC Battery Metering Clamp Device model - Generic Charging Station Device model - NHC Metering module (pulse meter) Device model - NHC Outdoor Video Door Station Updated Device model - NHC ZigBee Electricity Metering module (with clamp) Device model - NHC Electricity Metering module (with clamp) Device model - Energy Home Device model - NHC Zigbee Smart plug Device model - Generic Zigbee Smart plug



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System setup

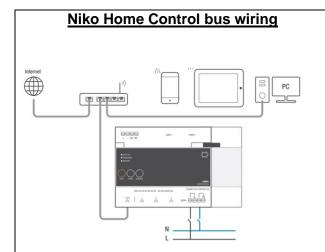
The local API allows access to the Niko Home Control players and actions, as configured during the commissioning phase of the Niko Home Control installation.

API data content could change due to configuration updates or new functionality that becomes available with future product evolutions (e.g. new functionality in future releases; new or removed items due to configuration changes).

When developing the application or driver, take into account that device objects could be extended with new traits, parameters and properties when new Niko Home Control software versions are released.

More information on how to program and configure a Niko Home Control installation can be found in the Niko guide (http://guide.niko.eu/), the section Niko Home Control II programming software.

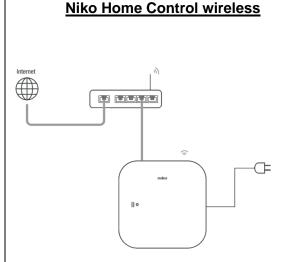
Within the Niko Home Control programming software, the terminology players and actions/routines is used; on API level, those players and actions/routines are identified as "devices".



The API is accessible via

- The WAN port of the Connected Controller. The WAN port requires a DHCP server for the IP network setup.
- The LAN port 3, when this port is configured to connect to a centralized network. The LAN port 3 requires in this case a DHCP server for the IP network setup.

The Connected Controller requires internet connectivity for correct operation.



The API is accessible via

- The WAN port of the Wireless smart hub.
 The WAN port requires a DHCP server for the IP network setup.
- The WiFi connection of the Wireless smart hub. When the Wireless smart hub is connected to a WiFi access point, it requires also a DHCP server for the WiFi IP network setup

The Wireless smart hub requires internet connectivity for correct operation.



General API information

The API uses two different technologies

- An MQTT interface for command and control
- A REST interface to retrieve historical measurement data

REST Interface

Scheme

HTTPS

Base URL: Niko<last 4 characters of the MAC-Address of the

controller>.local/measurements/v1

Example: Niko870A.local/measurements/v1

The MAC-address of the Connected Controller and Smart Hub can also be retrieved via the hostname (cfr. discovery process)

MQTT communication protocol

The interface is an event driven solution in both directions, as a consequence continues polling requests are not needed.

States and status information updates can be captured by listening to the respective event topics.

All commands/methods are fire-and-forget: there is no response message, unless explicitly mentioned.

The API communication uses MQTT as transport with JSON payloads.

The Connected Controller and Smart Hub contains an MQTT broker, using IP port 8884.

The MQTT communication encrypted via SSL/TLS (TLSv1.2 or TLS1.3)

The CA certificate file will be delivered by Niko.

MQTT Topic

The MQTT Topics are "logical channels" where API messages are exchanged and do have following format:

<connector>/<api-service>/<message class>/<message-type>

Field	Values	Description
connector	hobby	Isolated and secure communication channel for a specific user or device profile
api-service	control system	Control service: to connect and control the Niko Home Control platform System service: system related information



Field	Values	Description
	notification	Notification service: notification message related information
message- class	devices locations	Application domain: defines the context of the message
message- type	cmd evt rsp err	cmd: Command messages evt: Event messages rsp: Response message as reaction upon a command, having an explicit reply. err: error message Note that the intended use of these channels is the following: The external application is allowed to publish on cmd topics and subscribe on evt/rsp and err ones.

MQTT object format

Cmd/evt and rsp messages share a common structure, where the field "Params" is optional

```
MQTT method: publish
TOPIC: <connector>/<api-service>/<message class>/<message-type>
DATA:
{
    "Method": <functionality>
    "Params": <message payload>
}
```

Err (error) messages do have following structure

```
MQTT method: subscribe

TOPIC: <connector>/<api-service>/<message class>/<message-type>

DATA:

{
        "Method":"<command>",
        "ErrCode":"<error-tag>",
        "ErrMessage":"<descriptive-message>"
}
```

Discovery process

The Connected Controller and Smart Hub are discoverable via DNS-SD on the WAN port.

The published hostname has following format: Niko<last 4 characters of the MAC-Address of the controller>.local

Example hostname: Niko870A.local

API Authentication

The API is protected with authentication and authorization. It requires a JWT token to communicate with the connected controller or Smart Hub.



The JWT token and username can be obtained for your installation via the Niko Home Control programming software. This JWT token is unique per installation and needs to be renewed on a yearly basis.

For the MQTT communication

MQTT username: username as, provided by Niko MQTT password: JWT token, as provided by Niko

For the REST API communication

Authorization header, Bearer < JWT token, as provided by Niko



The connected controller or Smart Hub needs to be online when the token is used for the first time.

Device model description

The devices within the Niko Home Control system are modelled according to the following conventions.

Players and actions (terminology as used in Niko Home Control programming software) are collectively mapped to devices on the API.

Device descriptor

The device descriptor fields are mandatory for all devices and are describing the device

Device descriptor	Description
Uuid	Unique Identifier within the Niko Home Control Platform, used for addressing the device in e.g. the location list and control device commands
Туре	Device application type
Technology	Defines the manufacturer of the device
Model	Defines the hardware model
Identifier	Niko Home Control configuration identifier
Name	Human readable, display name of the device, can be updated by the user installer
Traits	List of device specific context features
Parameters	List of device configuration options
Properties	List of run-time functions

Device Traits

Device traits are device specific details (which are fixed) providing more context about the device.



See Annex A device objects for the available traits (as they are specific per device class)

Some examples:

Trait example	Description
MacAddress	The Niko Home Control bus mac address of this device
Channel	The channel on the physical module this device is connected to.

Device parameters

Device parameters are typically fields which are filled in during configuration and commissioning of the installation. The values of those fields do not change during normal operational use of the installation. See Annex A device objects for the available parameters (as they are specific per device class).

Note that there are devices having the same device class and using different content.

Some examples:

Parameter example	Description
LocationName	Name of the Location
Location	UUID of the assigned location
LocationIcon	Reference to the location icon

Device properties

Device properties can be considered as run-time functionality of a device. The values of those properties are changing regularly during normal operation use of the system.

A property has the following format and definitions.

Property	Description
Name	Name of the property Text field
Туре	Indicates the type of variable. Text field with following options: Range (Minimum value, Maximum value, Stepsize) Boolean (True, False) Text (text field) Choice (List of discrete values)
Status	Indicates whether the property has status information and is capable to report it Boolean field
Control	Indicates whether the property can be controlled via the control command Boolean field
Schedule	Indicates whether the property can be used in a weekly schedule program Boolean field Remark: schedules cannot be accessed or configured via the API



Property	Description
Logging	Indicates whether the property reports historical measurement information Boolean field Remark: this measurement data can be retrieved via the REST API

See Annex A device objects for the available properties (as they are specific per device type). Note that there are devices having the same device class and using different content.

Some examples:

Property example	Туре	Status	Control	Schedule	Logging
Program	Choice(Home, Away, Vacation, Day, Night,)	true	true	false	false
AmbientTemperature	Range(-50,100,1)	true	false	false	false

API functions (methods)

Device management

List all devices

Command

Requests the list of all devices within the Niko Home Control installation

MQTT Topic format

hobby/control/devices/cmd

Application Data

Method: devices.list

Parameters: Not applicable

Response

Returns the list of all available devices in the installation.

MQTT Topic format

hobby/control/devices/rsp

Application Data

Method: devices.list

Parameters: list of all available devices (See Annex A device objects for all possibilities)



Published by the Niko Home Control platform whenever an error occurs in the given device command, replaces the application response.

MQTT Topic format

hobby/control/devices/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMessage":"Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Example

Command

```
MQTT method: publish
TOPIC: hobby/control/devices/cmd
DATA:
{
    "Method": "devices.list"
}
```

Reponse

```
MQTT method: subscribe
TOPIC: hobby/control/devices/rsp
DATA:
{
```



```
"Method": "devices.list",
"Params": [{
         "Devices": [{
                            "Properties": [{
                                              "Brightness": "100"
                                     }, {
                                              "Status": "Off"
                                     }, {
                                              "Aligned": "True"
                            }],
                            "Name": "Dimmable lamp",
                            "Technology": "nikohomecontrol",
                            "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450",
                            "Identifier": "a4fafca1-bde4-4ad7-94f9-292c60c26bf7",
                            "PropertyDefinitions": [{
                                              "Brightness": {
                                                        "Description": "Range(0.00,100.00,1.00)",
                                                        "HasStatus": "true",
                                                        "CanControl": "true"
                                              }
                                     }, {
                                              "Status": {
                                                        "Description": "Choice(On,Off)",
                                                        "HasStatus": "true",
                                                        "CanControl": "true"
                                              }
                                     }, {
                                              "Aligned": {
                                                        "Description": "Boolean",
                                                        "HasStatus": "true",
                                                        "CanControl": "false"
                                              }
                            }],
                            "Online": "True",
                            "Model": "dimmer",
                            "Traits": [],
                            "Type": "action",
                            "Parameters": [{
                                              "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                     }, {
                                              "LocationName": "Demo"
                                     }, {
                                              "LocationIcon": "general"
                           }]
         }]
}]
```

}



```
MQTT method: subscribe

TOPIC: hobby/control/devices/err

DATA:
{
    "ErrMessage": "Method 'unknown' not supported for topic 'hobby/control/devices/cmd'",
    "ErrCode": "UNKNOWN_METHOD",
    "Method": "unknown"
}
```

Device added event

Published by the Niko Home Control platform when a new device is added in the installation.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.added

Parameters

Parameter	Description	
Devices	The list of new devices	
	See Device model description for details Additional model changes could be reported later on in the process via the Device Parameter Changed event or via Device Property Definition changed event	

Example

```
MQTT method: subscribe
TOPIC:
           hobby/control/devices/evt
DATA:
{
        "Method": "devices.added",
        "Params": [{
                 "Devices": [{
                                   "Name": "Single dimming control with LEDs",
                                   "Technology": "nikohomecontrol",
                                   "Uuid": "b6a06a67-ce6f-42e2-933b-c67227996f46",
                                   "Identifier": "071da53c-03ed-46b7-9036-082d8c1f47e2",
                                   "Model": "dimcontrollerfeedback",
                                   "Traits": [{
                                           "MacAddress": "002807d4"
                                  }],
                                   "Type": "panel",
                                   "Parameters": [{
                                                    "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                           }, {
                                                    "LocationName": "Demo"
```



```
}, {
                                                       "LocationIcon": "general"
                                    }]
                           }, {
                                     "Name": "All-off",
                                     "Technology": "nikohomecontrol",
                                     "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4",
                                     "Identifier": "fc7993cd-2711-41c1-aebc-4fcac32b8fa3",
                                     "Model": "alloff",
                                     "Traits": [],
                                     "Type": "action",
                                     "Parameters": [{
                                                       "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                             }, {
                                                       "LocationName": "Demo"
                                             }, {
                                                       "LocationIcon": "general"
                                    }]
                  }]
         }]
}
```

Device removed event

Published by the Niko Home Control platform when an existing device is removed from the installation.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.removed

Parameters

Parameter	Description
Devices	The list of removed devices
Uuid	Unique device identifier

Example



```
}]
}
```

Device Display name changed event

Published by the Niko Home Control platform when the display name of a device is changed. The display name is visible on the various user interfaces of the Niko Home Control installation

MQTT Topic format

hobby/control/devices/evt

Application Data

Data Method: devices.displayname_changed

Parameters

Parameter	Description
Devices	The list of changed devices
Uuid	Unique device identifier
DisplayNamo	Updated display name

Example

Device Property Definition changed event

Published by the Niko Home Control platform when the definition of one or more device properties changed

email: niko-api@niko.eu

MQTT Topic format

hobby/control/devices/evt

Application Data

Data Method: devices.changed

Parameters



Parameter			Description
Devices			The list of given devices
	Uuid		The unique identifier of the given device
	PropertyDefinitions		List of changed property definitions for the device
		Property name: New property definition	New definitions for the given property

```
MQTT method: subscribe
TOPIC:
              hobby/control/devices/evt
DATA:
{
           "Method": "devices.changed",
           "Params": [{
    "Devices": [{
                                             "PropertyDefinitions": [{
                                                        "BasicState": {
                                                                  "Description": "Choice(On,Off,Triggered)",
"HasStatus": "true",
"CanControl": "true"
                                             }],
"Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
                                 }, {
                                            "PropertyDefinitions": [{
                                                        "Status": {
                                                                  "Description": "Choice(On,Off)",
"HasStatus": "true",
"CanControl": "true"
                                            }],
"Uuid": "ab2e315e-a6df-4cc8-9518-5fa2a48226f5"
                      }]
           }]
```

Device Parameter Changed event

Published by the Niko Home Control platform when a parameter of a device is changed

MQTT Topic format

hobby/control/devices/evt

Application Data

Data Method: devices.param_changed

Parameters

Parameter	Description
Devices	The list of given devices
Uuid	The unique identifier of the given device



Parameter		Description	
Parameters		List of changed parameters for the device	
	Parameter name : New value	New value for the given parameter	

```
MQTT method: subscribe
TOPIC:
           hobby/control/devices/evt
DATA
{
        "Method": "devices.param_changed",
        "Params": [{
                 "Devices": [{
                                   "Parameters": [{
                                                    "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                           }, {
                                                    "LocationName": "Demo"
                                           }, {
                                                    "LocationIcon": "general"
                                   }],
                                   "Uuid": "ab2e315e-a6df-4cc8-9518-5fa2a48226f5"
                          }, {
                                   "Parameters": [{
                                                    "LongPressTime01": "1000"
                                           }, {
                                                    "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                           }, {
                                                    "LocationName": "Demo"
                                           }, {
                                                    "ButtonMode01": "ShortPress"
                                           }, {
                                                    "LocationIcon": "general"
                                   }],
                                   "Uuid": "ae56f142-03ca-4de6-8547-282489a615ca"
                          }, {
                                   "Parameters": [{
                                                    "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                                           }, {
                                                    "LocationName": "Demo"
                                           }, {
                                                    "LocationIcon": "general"
                                   }],
                                   "Uuid": "d06d3d73-6820-4309-be16-1e201d4aa8b8"
                 }]
        }]
}
```



Device control

Control device

Command

Controls a set of properties for the given devices.

MQTT Topic format

hobby/control/devices/cmd

Application Data

Data Method: devices.control

Parameters

Parameter	Description
Devices	The list of given devices
Uuid	The unique identifier of the given device
Properties	Property list to be changed for the given device
Property name : New value	New value for the given property

See Device model description for details.

Response

Not applicable.

Device status updates are published via the Devices status changed event

Error

Published by the Niko Home Control platform whenever an error occurs in the given device command, replaces the application response.

MQTT Topic format

hobby/control/devices/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported



Errorcode	Description
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMessage": "Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Remarks:

When a device is offline while it is being controlled via the API:

- there will be no error event
- there will be no status update events

When a control command contains multiple actions to be executed and there is an error in one of the properties/values, the valid property commands will be executed and the invalid ones will be filtered out.

Example

Command

```
MQTT method: publish
TOPIC:
           hobby/control/devices/cmd
DATA:
{
         "Method": "devices.control",
         "Params": [{
                  "Devices": [{
                           "Properties": [{
                                            "Brightness": "100"
                                   }, {
                                            "Status": "On"
                          }],
                           "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
                 }]
         }]
}
```

Error

```
MQTT method: subscribe
TOPIC: hobby/control/devices/err
DATA:
{
```

"ErrMessage": "Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450"",



```
"ErrCode": "INTERNAL_ERROR",
"Method": "devices.control"
}
```

Devices status changed event

Published by the Niko Home Control platform when a device property values or device parameter values are changed.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.status

Parameters

Parameter	Description
Devices	The list of changed devices
Uuid	Unique device identifier
Properties	List of changed properties
Property name : New	w value New value for the given property
Online	Online status of the device

Example

```
MQTT method: subscribe
TOPIC:
           hobby/control/devices/evt
DATA:
{
         "Method": "devices.status",
         "Params": [{
                  "Devices": [{
                           "Properties": [{
                                   "BasicState": "Off"
                           "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
                 }, {
                           "Properties": [{
                                             "Brightness": "100"
                                   }, {
                                             "Status": "On"
                           }],
                           "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
                 }]
        }]
}
```



Locations

List locations

Command

Requests the list of all locations within the Niko Home Control installation

MQTT Topic format

hobby/control/locations/cmd

Application Data

Method: locations.list

Parameters: Not applicable

Response

Returns the list of all available locations in the installation.

MQTT Topic format

hobby/control/locations/rsp

Application Data

Method: locations.list

Parameters: list of all available locations

Parameter	Description
Uuid	The unique identifier of this location
Name	Displayname, user given name for this location
Index	The index determines in what order the locations should be shown on the user interfaces in the Niko Home Control platform
lcon	Icon is a tag/name used as a reference to display the corresponding icon on the user interfaces in the Niko Home Control platform

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

email: niko-api@niko.eu

MQTT Topic format

hobby/control/location/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:



Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMessage":"Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Command

```
MQTT method: publish
TOPIC: hobby/control/locations/cmd
DATA:
{
    "Method":"locations.list"
}
```

Response

```
MQTT method: subscribe
TOPIC:
           hobby/control/locations/rsp
DATA:
{
         "Method": "locations.list",
        "Params": [{
                  "Locations": [{
                                   "Icon": "general",
                                   "Name": "Home",
                                   "Index": "1",
                                   "Uuid": "b4e948b8-6378-498f-961c-b7c285c9f5b8"
                          }, {
                                   "Icon": "general",
                                   "Name": "Demo",
                                   "Index": "2",
                                   "Uuid": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                 }]
        }]
}
```



```
MQTT method: subscribe

TOPIC: hobby/control/location/err

DATA: {
          "ErrMessage": "Method 'unknown' not supported for topic 'hobby/control/location/cmd'",
          "ErrCode": "UNKNOWN_METHOD",
          "Method": "unknown"
}
```

List devices in locations

Command

Requests the list of all devices for the given locations within the Niko Home Control installation

MQTT Topic format

hobby/control/locations/cmd

Application Data

Method: locations.listitems

Parameters: Not applicable

Parameter	Value
Location	Array of the unique location identifiers (UUID's).

Response

Returns the list of all available devices for the given locations within the Niko Home Control installation.

MQTT Topic format

hobby/control/locations/rsp

Application Data

Method: locations.listitems

Parameters: list of the all available devices per given location

Parameter	Description
Locations	The list of given locations
Uuid	The unique identifier of the given location
Items	List of all devices for the given location
Uuid	The unique identifier of the device
Index	The index determines in what order the devices should be shown on the user interfaces in the Niko Home Control platform for the given location



Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/control/location/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMessage":"Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Remark: When an invalid location ID is used, an empty list will be returned

Example

Command

Response

MQTT method: subscribe



```
TOPIC:
            hobby/control/locations/rsp
DATA:
{
         "Methou . . . "Params": [{
"Locations": [{
         "Method": "locations.listitems",
                                     "Items": [],
                                      "Uuid": "b4e948b8-6378-498f-961c-b7c285c9f5b8"
                            }, {
                                      "Items": [{
                                                        "Index": "0",
                                                        "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
                                               }, {
                                                        "Index": "0",
                                                        "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
                                     }],
"Uuid": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
                  }]
         }]
}
```

```
MQTT method: subscribe

TOPIC: hobby/control/location/err

DATA: {
    "ErrMessage": "Method 'unknown' not supported for topic 'hobby/control/location/cmd'",
    "ErrCode": "UNKNOWN_METHOD",
    "Method": "unknown"
}
```

System information

Time information event

Time information published by the Niko Home Control platform every 30 seconds

MQTT Topic format

hobby/system/evt

Application Data

Method: time.published

Parameters

Parameter		Description
Timeinfo		
	GMT offset	Unique device identifier
	Timezone	Timezone
	IsDST	Day light savings
	UTCTime	Current date time (UTC)



System information request

Command

Requests the Niko Home Control system information

MQTT Topic format

hobby/system/cmd

Application Data

Method: systeminfo.publish

Parameters: Not applicable

Response

Returns the Niko Home Control system information

MQTT Topic format

hobby/system/rsp

Application Data

Method: systeminfo.published

Parameters

Parameter		Description
SystemInfo		
	LastConfig	Date time stamp of last configuration change in Niko Home Control
	WaterTariff	Tariff for water (price per m³)
	Currency	Tariff currency (€, \$, £)
	Units	Always 0 (Metric system)
	Language	User language



Parameter	Description
SWversions	Niko Home Control version and installed SW image of the Connected Controller
ElectricityTariff	Tariff for electricity (price per kWh)
GasTariff	Tariff for gas (price per m³)

Command

```
MQTT method: publish
TOPIC:
           hobby/system/cmd
DATA:
{
        "Method": " systeminfo.publish "
}
Response
MQTT method: subscribe
TOPIC:
           hobby/control/time/rsp
DATA:
{
        "Method": "systeminfo.publish",
        "Params": [{
                 "SystemInfo": [{
                          "LastConfig": "20190206093827",
                          "WaterTariff": "0",
                          "Currency": "EUR",
                          "Units": "0",
                          "Language": "EN",
                          "SWversions": [{
                                            "NhcVersion": "2.5.1.0"
                                   }, {
                                            "Cocolmage": "2019.1-20190118105507"
                          "ElectricityTariff": "0",
                          "GasTariff": "0"
                 }]
```

System information event

System information published by the Niko Home Control platform when configuration is updated.

MQTT Topic format

hobby/system/evt

}]

}

Application Data

Method: systeminfo.published

Parameters



Parameter		Description
SystemInfo		
	LastConfig	Date time stamp of last configuration change in Niko Home Control
	WaterTariff	Tariff for water (price per m³)
	Currency	Tariff currency (€, \$, £)
	Units	Always 0 (Metric system)
	Language	User language
	SWversions	Niko Home Control version and installed SW image of the Connected Controller
	ElectricityTariff	Tariff for electricity (price per kWh)
	GasTariff	Tariff for gas (price per m³)

```
MQTT method: subscribe
TOPIC:
            hobby/control/time/evt
DATA:
{
         "Method": "systeminfo.published",
         "Params": [{
                  "SystemInfo": [{
                           "LastConfig": "20190206093827",
                           "WaterTariff": "0",
                           "Currency": "EUR",
                           "Units": "0",
                           "Language": "EN",
                           "SWversions": [{
                                             "NhcVersion": "2.5.1.0"
                                    }, {
                                             "Cocolmage": "2019.1-20190118105507"
                           "ElectricityTariff": "0",
                           "GasTariff": "0"
                  }]
         }]
}
```

Notifications

List Notifications

Command

Requests the list of all notifications within the Niko Home Control installation

MQTT Topic format

hobby/notification/cmd

Application Data



Method: notifications.list

Parameters: Not applicable

Response

Returns the list of all available notifications in the installation.

Number of notifications is limited to 50. When number of notifications exceeds the limit, older notifications will be removed according (FIFO principle)

MQTT Topic format

hobby/notification/rsp

Application Data

Method: notifications.list

Parameters: list of all available notifications

Parameter	Description
Uuid	The unique identifier of this notification
TimeOccurred	Date time stamp (<yyyymmddhhmmss>;UTC) of the notification occurrence</yyyymmddhhmmss>
Туре	alarm: alarm notification (as defined via the programming software) notification: informative notification (as defined via the programming software)
Status	new: new notification read: notification is read

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/notification/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported
INTERNAL_ERROR	Internal application error
ACCESS_VIOLATION	Unknown notification (ErrMessage":"Notification (21a967a1-676d-487b-b8d4-9736ef16d450) is not



Errorcode	Description
	accessible")
UNKNOWN_ERROR	Generic failure

Command

```
MQTT method: publish
TOPIC: hobby/notification/cmd
DATA:
{
     "Method":"notifications.list"
}
```

Response

```
MQTT method: subscribe
TOPIC:
           hobby/notification/rsp
DATA:
{
         "Method": "notification.list",
         "Params": [{
                  "Notifications": [{
                           "Status": "new",
                           "Type": "alarm",
                           "TimeOccurred": "20190315140930",
                           "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
                           "Text": "Dimmer ON"
                 }]
        }]
}
```

Error

```
MQTT method: subscribe

TOPIC: hobby/notification/err

DATA:
{

"ErrMessage": "Method-field not found within json string ({\n\t\"Method\": "notifications.update\",\n\t\"Params\": \n\t\t\"Notifications\": [{\n\t\t\t\"Uuid\": \"a5f576c6-7f4a-4541-bc39-28f617cff435\",\n\t\t\t\t\"Status\": \"read\"\n\t\t\t\\n\t\t\]\n\t\]\n\",

"ErrCode": "INVALID_JSON_STRING",

"Method": "unknown"
}
```

email: niko-api@niko.eu

Update Notification

Command

Updates an existing notification



MQTT Topic format

hobby/notification/cmd

Application Data

Method: notifications.update

Parameters

Parameter	Description
Uuid	The unique identifier of this notification
Status	

Response

Returns the list of updated notifications as a result of the update notification command.

MQTT Topic format

hobby/notification/rsp

Application Data

Method: notifications.list

Parameters: list of updated notifications

Parameter	Description	
Uuid	The unique identifier of this notification	
TimeOccurred	Date time stamp (<yyyymmddhhmmss>;UTC) of the notification occurrence</yyyymmddhhmmss>	
Туре	Alarm: alarm notification (as defined via the programming software) Notification: informative notification (as defined via the programming software)	
Status	new: new notification read: notification is read	

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

email: niko-api@niko.eu

MQTT Topic format

hobby/notification/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:



Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method "unknown" not supported
INTERNAL_ERROR	Internal application error
ACCESS_VIOLATION	Unknown notification (ErrMessage":"Notification (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Command

Response

```
MQTT method: subscribe
TOPIC:
           hobby/notification/rsp
DATA:
{
         "Method": "notifications.update",
         "Params": [{
                           "Notifications": [{
                           "Status": "read",
                           "Type": "alarm",
                           "TimeOccurred": "20190315140930",
                           "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
                           "Text": "Dimmer ON"
                 }]
        }]
}
```

Error



```
MQTT method: subscribe

TOPIC: hobby/control/notification/err

DATA: {

    "ErrMessage": "Method-field not found within json string ({\n\t\"Method\": "notifications.update\",\n\t\"Params\": \n\t\t\"Notifications\": [{\n\t\t\t\t\"Uuid\": \"a5f576c6-7f4a-4541-bc39-28f617cff435\",\n\t\t\t\t\"Status\": \"read\"\n\t\t\t\t\\\]\n\t\t\\\]\n\", "ErrCode": "INVALID_JSON_STRING",
    "Method": "unknown"
}
```

Notification raised event

Published by the Niko Home Control platform when a new notification is generated.

MQTT Topic format

hobby/notification/evt

Application Data

Method: notifications.raised

Parameters: list of all new notifications

Parameter	Description	
Uuid	The unique identifier of this notification	
TimeOccurred	Date time stamp (<yyyymmddhhmmss>;UTC) of the notification occurrence</yyyymmddhhmmss>	
Туре	Alarm: alarm notification (as defined via the programming software) Notification: informative notification (as defined via the programming software)	
Status	new: new notification	

Example

```
MQTT method: subscribe
TOPIC:
           hobby/notification/evt
DATA:
{
         "Method": " notifications.raised",
         "Params": [{
                  "Notifications": [{
                           "Status": "new",
                           "Type": "alarm",
                           "TimeOccurred": "20190315140930",
                           "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
                           "Text": "Dimmer ON"
                 },]
         }]
}
```



Measurement data

The measurement data can be retrieved via the REST API

Measurement data can be retrieved for device properties having the "Logging" feature enabled

Get latest measurement values for all channels of a given device

GET	/devices/{Uuid}
-----	-----------------

Parameters

Name	Description
Uuid string (path)	The logical device UUID
Latest Boolean (query)	Flag to indicate the requested result are the latest measurements of a channel

Responses

Code	Description	Example
200	ок	{ "Uuid": "string", "Properties": [{
400	Bad Request	{ "Message": "string", "MessageDetail": "string" }
404	Page Not Found	
500	Internal server error	{ "Message": "string", "MessageDetail": "string" }

Get raw measurement values for a given device property

GET	/devices/{Uuid}/properties/{property}
-----	---------------------------------------

Parameters

Name	Description
Uuid string (path)	The logical device UUID
Property string (path)	Property name for the measurement



IntervalStart string(\$string) (query)	Start date/time for the interval in local time (ISO-8601). This measurement is excluded from the list
IntervalEnd string(\$string) (query)	End date/time for the interval in local time (ISO-8601). This measurement is included in the list

Responses

Code	Description	Example
200	ОК	{ "Uuid": "string", "MeasurementProperty": "string", "Unit": "string", "Values": [{
400	Bad Request	{ "Message": "string", "MessageDetail": "string" }
404	Page Not Found	
500	Internal server error	{ "Message": "string", "MessageDetail": "string" }

Get aggregated measurement values for a given device property

GET	/devices/{Uuid}/properties/{property}/{Interval}
-----	--

Parameters

Name	Description
Interval string (path)	The interval Available options: hour, day, month, year
Uuid string (path)	The logical device UUID
Property string (path)	Property name for the measurement
IntervalStart String(\$string) (query)	Start date/time for the interval in local time (ISO-8601). This measurement is excluded from the list
IntervalEnd String(\$string) (query)	End date/time for the interval in local time (ISO-8601). This measurement is included in the list
Aggregation String (query)	The aggregation function that will be executed on the values Available options: sum, avg, min, max

Responses

Code	Description	Example
------	-------------	---------



200	ок	{ "Uuid": "string", "MeasurementProperty": "string", "Unit": "string", "Values": [{
400	Bad Request	{ "Message": "string", "MessageDetail": "string" }
404	Page Not Found	
500	Internal server error	{ "Message": "string", "MessageDetail": "string" }

Get aggregated measurement values for all properties of a given device

GET	/devices/{Uuid}/total
-----	-----------------------

Parameters

Name	Description
Uuid string (path)	The logical device UUID
IntervalStart String(\$string) (query)	Start date/time for the interval in local time (ISO-8601). This measurement is excluded from the list
IntervalEnd string(\$string) (query)	End date/time for the interval in local time (ISO-8601). This measurement is included in the list
Aggregation String (query)	The aggregation function that will be executed on the values Available options: sum, avg, min, max

Responses

Code	Description	Example	
200	ок	{ "Uuid": "string", "Properties": [{	
400	Bad Request	{ "Message": "string", "MessageDetail": "string" }	



404	Page Not Found	
500	Internal server error	{ "Message": "string", "MessageDetail": "string" }

Models

Raw Measurements

Latest Measurements

```
LatestMeasurements
{
        Uuid
                                                            string
        Properties [LatestMeasurementProperty {
                          Property
                                                            string
                          Unit
                                                            string
                          Values [MeasurementValue {
                                           DateTime
                                                            string ($date-time)
                                           Value
                                                            number ($double)
                         }]
        }]
```

LatestMeasurementProperty

TotalMeasurements



TotalMeasurementsProperty

```
TotalMeasurementProperty {
    Property string
    Unit string
    DateTime string ($date-time)
    Value number ($double)
}
```

AggregatedMeasurements

```
AggregatedMeasurements
        Uuid
                                           string
        MeasurementProperty
                                           string
        Unit
                                           string
        Values [MeasurementValue {
                          DateTime
                                           string ($date-time)
                          Value
                                           number ($double)
        }]
        Aggregation
                                           string ($string)
                                  Enum: [sum, avg, min, max]
        Interval
                                           string ($string)
                                  Enum: [hour, day, month, year]
}
```

MeasurementsValue

Errorresult

Limitations and restrictions

MQTT Latency

The communication flow is based upon asynchronous events and commands, introducing a latency between action and reaction. This table gives an indication of typical latency that can be expected.

Flow	Typical latency
Device control command message to "physical device" action execution	< 200 ms
"physical device" action to device status changed event message	< 200 ms
Location or device list request message and response message	< 200 ms



Annex A device objects

This is the list of all objects, currently available in the Niko Home Control platform.

The API will return only objects, which are available within each specific installation.

This list is not a limited list: new devices, traits, properties and property definitions can be added during the lifecycle of the Niko Home Control Platform.

Device model - NHC Dimmer Action

Represents the action for a dimmer

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	dimmer
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name



LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
Status	Choice(On, Off)	~	~			Turns dimmer On or Off Follows "All On" action
Brightness	Range(0, 100, 1)	~	~			Brightness of dimmer in %. Note that 0 means "no visible light", but is not the same as OFF.
Aligned	Boolean	>				True when: all dimmers are on and have the same brightness all dimmers are off, regardless of the brightness

Device model - NHC Fan Action

Represents the action for a Fan

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	fan
fanldentifier	<nikoconfigguid></nikoconfigguid>

Traits Information





Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
FanSpeed	Choice(Low, Medium, High, Boost)	~	✓			Fan speed selection

Device model - NHC Motor Action

Represents the action for motor controle

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	rolldownshutter sunblind gate venetianblind
Identifier	<nikoconfigguid></nikoconfigguid>

raits	Information
-------	-------------



Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in app

Property	Туре	Status	Control	Schedule	Logging	Information
Action	Choice(Open, Close, Stop)		~			Fully open or close the NHC motor or stop a running motor
Position	Range(0, 100, 1)	✓	~			100% == Open 0% == Closed
Aligned	Boolean	~				True if all motors have the same position
Moving	Boolean	~				Any motor running or not
LastDirection	Choice(Open, Close)	~				Last movement direction, only used to keep the direction for "one button motor"

Device model - NHC Relay Action

Represents the action to control a relay or circuit



Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	light, socket, switched-fan, switched-generic
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Status	Choice(On, Off)	~	~			Turn on/off the relays Status feedback: When "On": all connected outputs are "On" When "Off": at least one output is off

Device model - NHC Reynaers Action

Represents the action for Reynaers motor control

Type action



Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	reynaers
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Action	Choice(Open, Close, Stop)		~			Open, close or stop a running Reynaers motor
Status	Choice(Moving, FixedClosed, FixedNotClosed)	~				Status feedback of the Reynaers motor

Device model - NHC Velux Action

Represents the action for a Velux motor control



Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	velux
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Type	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Action	Choice(Open, Close, Stop)		~			Open, close or stop a running Velux motor

Device model - NHC Access Control Action

Represents the action for the "external video unit touch buttons" and "external video unit touch buttons with ring and come-in"

Type action



Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	accesscontrol
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	1111	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
Action	Text	""	UUID of the extra action configured for this button E.g. A light or set of lights near the entrance
Ringtone	Choice("dunes","savanna","suburbia","rimbu","metropolis")		Ringtone
DeclineCallAppliedOnAllDevices	Boolean		Decline call applied on all devices
Buttonid	Text	""	ButtonID of the VDS button linked to this routine Format <mac-address>_[01-04]</mac-address>

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Intermediate,	~	~			Only available for ring-and-come-in routine. BasicState (used to enable / disable ring-and-come-in)



	Off, Triggered)				Control: use the value "Triggered" Status feedback: returns values "On", "Off"
Doorlock	Choice(Open, Closed)	~	>		Control doorlock via "Open" in order to open the doorlock. After the timeout (as configured in the routine), the doorlock will close again and the state will be updated to "Closed".
CallPending	Boolean	~			Call is pending
CallAnswered	Boolean	~			Call is picked up

Device model - NHC BellButton Action

Represents the action for additional bell buttons for the access control functionality

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	bellbutton
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP
Action	Text	""	UUID of the extra action that can be configured for this button E.g. A light or set of lights near the entrance
Ringtone	Choice("dunes","savanna","suburbia","rimbu","metropolis")		Ringtone
DeclineCallAppliedOnAllDevices	Boolean		Decline call applied on all devices

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Intermediate, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback: returns "On" when bell button is pressed returns "Off" when no call active
Doorlock	Choice(Open, Closed)	✓	~			Control doorlock via "Open" in order to open the doorlock. After the timeout (as configured in the routine), the doorlock will close again and the state will be updated to "Closed".



Device model - NHC Garage Door Action

Represents the action for the garage door control

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	garagedoor
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Intermediate, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback When "On": gate is opened When "Intermediate": gate is moving (only when optional moving sensor is available)



				When "Off": gate closed
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Device model - NHC Basic Alarm Action

Represents the action for intruder alarm

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alarms
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP



Property	Туре	Status	Control	Schedule	Logging	Model
BasicState	Choice (On, Intermediate, Off, Triggered)	~	~			BasicState (used to arm/disarm the alarm) Control: use the value "Triggered" Status feedback: returns values "On", "Intermediate", "Off"

Device model - NHC Panic Mode Action

Represents the action for the Panic Mode

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alarms
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	11 11	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in app



Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	>	>			Control: use the value "Triggered" Status feedback: returns values "On", "Off"

Device model - NHC Mood Action

Represents the action for a mood (scene)

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	comfort
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID



IconCode	Text	""	Name of the icon to show in app
Moodlcon	Range(-1, 32, 1)	0	Index of the mood icon. If this mood action is not linked to a moodbutton, the value is -1.

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
MoodActive	Boolean	~				Status feedback for the Mood Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change
AllStarted	Boolean	~				Starting from Release 2.18: Set to "True" when all outputs have reached their "Started" value



Device model - NHC All Off Action

Represents the All-off action and All-off with walkway assistance

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alloff
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	✓	~			BasicState (used to execute the action)
						Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of



				all assigned players as configured for that action
AllOffActive	Boolean	~		AllOffActive (status feedback for the All Off Action)
				True: only upon activation of the action False: when one of the assigned participants in the action had a state change
AllStarted	Boolean	~		Starting from Release 2.18:
				Set to "True" when all outputs have reached their "Started" value

Device model - NHC Free Start Stop Actions

Represents the NHC Free Start stop action

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	generic
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID



LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP
StartText	Text	"Activated" (translated)	Text shown when the routine is activated
StopText	Text	"Deactivated" (translated)	Text shown when the routine is deactivated

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
StartActive	Boolean	✓				Status feedback for the Free Start Stop Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change
AllStarted	Boolean	~				Starting from Release 2.18: Set to "True" when all outputs have reached their "Started" value

Device model - NHC House Mode Action

Represents the action to activate/deactivate NHC house status actions

Туре	action
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Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	overallcomfort
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	>			Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
StartActive	Boolean	~				Status feedback for the House Mode Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change



AllStarted	Boolean	~		Starting from Release 2.18: Set to "True" when all outputs have reached their "Started" value

Device model - NHC PIR Action

Represents the action for Motion detection enable/disable

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	pir
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in app



Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	✓			Used to enable/disable the motion detection control Control: use the value "Triggered" Status feedback: When "On": motion detection is enabled When "Off": motion detection is disabled

Device model - NHC Presence Simulation Action

Represents the action to enable/disable the presence simulation

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	simulation
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name



LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in app

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Intermediate, Off, Triggered)	~	~			BasicState (used to enable / disable presence simulation) Control: use the value "Triggered" Status feedback: returns values "On", "Intermediate", "Off"

Device model – NHC Player status action

Virtual device that shows the status for another player, used when direct control of the status feedback led on a button panel

Туре	Action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	playerstatus
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID



LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	""	Name of the icon to show in app

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(on, Off)	~				Follows On/Off state of the player
FeedbackMessage	Text	~				State description

Device model - NHC Conditional action

Represents the conditional action

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	condition
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information



Parameter	Туре	Default	Information
LocationId	Text	***	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback: returns value "On" when the evaluation is in the IF state, returns value "Off" when he evaluation is in the ELSE state

Device model - NHC PeakMode action

Represents the peak mode routine

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	peakmode
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information



Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	1111	Location Icon GUID
IconCode	Text	6677	Icon to use for this location in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	~	~			Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of the action (active/inactive)

Device model - NHC SolarMode action

Represents the solar mode routine

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	solarmode
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	1111	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	6677	Icon to use for this location in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
BasicState	Choice(On, Off, Triggered)	>	>			Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of the action (active/inactive)

Device model - NHC Timeschedule action??

Represents the virtual device that can be used to retrieve the time schedule state

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	timeschedule



Identifier	<nikoconfigguid></nikoconfigguid>	
Traits	Information	

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
IconCode	Text	6677	Icon to use for this location in the APP

Property	Туре	Status	Control	Schedule	Logging	Information
Active	Boolean	~				Time schedule is active

Device model - NHC HVAC Thermostat

Represents the action for an HVAC thermostat

Туре	hvac
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Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	hvacthermostat
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The NHC bus mac address of this device.

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Custom, Prog1, Prog2)	~	~			Temperature control program
AmbientTemperature	Range(0, 50, 0.1)	~				Currently measured temperature
SetpointTemperature	Range(5, 30, 1)	~				Read-only. Desired setpoint in the current program
OverruleActive	Boolean	~	~			Marks if the overrule-time will be used instead of setpoint as defined in program mode
OverruleSetpoint	Range(5, 30, 1)	~	~			Current overruled setpoint temperature
OverruleTime	Range(1, 1439, 1)	~	~			Duration of the overrule period in minutes (max 23h



					59min)
EcoSave	Boolean	>	>		Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going and influences the setpoint temperature. SetpointTemperature + 3°C when in cooling SetpointTemperature - 3°C when in heating
ProtectMode	Boolean	~	▽		System off mode with temperature protection. Heating is activated when temperature is too low Cooling is activated when temperature is too high
OperationMode	Choice(Heating, Cooling)	~	~		Indicates wheter the thermostat is in heating or cooling
FanSpeed	Choice(Low, Medium, High)	~	~		Fan speed selection
ThermostatOn	Choice(On, Off)	~	~		Indicates whether the thermostat is turned on or off
HvacOn	Choice(On, Off)	~			Indicates that the HVAC indoor unit is online.

Device model - NHC Thermostat

Represents the action for the thermostat

Туре	hvac
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	thermostat touchswitch
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information
MacAddress	The NHC bus mac address of this device. Empty for model touchswitch

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Eco, Off, Prog1, Prog2, Prog3)	✓	~			Temperature control program
AmbientTemperature	Range(-5, 45, 0.5)	~				Currently measured temperature
SetpointTemperature	Range(5, 30, 0.5)	✓				Read-only Desired setpoint in the current program
OverruleActive	Boolean	~	~			Marks if the overrule-time will be used instead of setpoint as defined in program mode
OverruleSetpoint	Range(5, 30, 0.5)	~	✓			Current overruled setpoint temperature
OverruleTime	Range(1, 1439, 1)	✓	~			Duration of the overrule period in minutes (max 23h 59min)
EcoSave	Boolean	>	~			Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going and influences the setpoint temperature. SetpointTemperature + 3°C when in cooling



				SetpointTemperature - 3°C when in heating
Demand	Choice(Heating, Cooling, None)	~		Read-only, indicates whether thermostat is actively requesting heating, cooling or nothing towards the heating unit

Device model - NHC Touch Switch Thermostat

Represents the Digital Black device, acting as a thermostat

Туре	thermostat
Technology (aka Manufacturer)	touchswitch
Model (aka HWModel)	thermostat
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information	
MacAddress	The WiFi mac address of this device.	

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID



Property	Туре	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Eco, Cool, Off, Prog1, Prog2, Prog3)	~	✓			Temperature control program
AmbientTemperature	Range(-5, 45, 0.5)	~				Currently measured temperature
SetpointTemperature	Range(5, 30, 0.5)	~				Read-only Desired setpoint in the current program
OverruleActive	Boolean	~	~			Marks if the overrule-time will be used instead of setpoint as defined in program mode
OverruleSetpoint	Range(5, 30, 0.5)	~	✓			Current overruled setpoint temperature
OverruleTime	Range(1, 1439, 1)	~	~			Duration of the overrule period in minutes (max 23h 59min)
EcoSave	Boolean	~	~			Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going but limits the temperature range to the value configured.
Demand	Choice(Heating, Cooling, None)	✓				Read-only, indicates whether thermostat is actively requesting heating, cooling or nothing towards the heating unit

Device model - NHC Thermo switch

Integrated temperature sensor information in the button panels with LED Feedback



Туре	multisensor
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	thermoswitchx1, thermoswitchx1feedback, thermoswitchx2feedback, thermoswitchx4feedback, thermoswitchx6feedback, thermoventilationcontrollerfeedback
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The NHC bus mac address of this multisensor.

Parameter	Туре	Default	Information
LocationId	Text		Location GUID
LocationName	Text		Location Name
LocationIcon	Text		Location Icon GUID
ButtonModeXX	Choice(ShortPress, LongPress, PressRelease)	"ShortPress"	Operation time: 'press briefly', 'press and hold' or 'push-button mode'
LongPressTimeXX	Range (min = 100, max = 60000, step = 100)	1000	Long press time in ms when in 'LongPress' mode.
HeatIndexReporting	Choice(Enabled	"Disabled"	



	Disabled)	
AmbientTemperatureReporting	Choice(Enabled Disabled)	"Enabled"
HumidityReporting	Choice (Enabled Disabled)	"Disabled"
TemperatureCalibrationOffset	Range (min = -6.0, max = 6.0, step = 0.5)	

Property	Туре	Status	Control	Schedule	Logging	Information
HeatIndex	Range (13, 45, 1)	~				Units: °C
AmbientTemperature	Range (-10, 45, 0.1)	~				Units: °C
Humidity	Range (0, 100, 0.1)	~				Units: %

Device model - NHC Virtual Thermostat

Represents the action for the virtual thermostat (in combination with a seperate temperatue sensor)

Туре	hvac
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	virtual
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Eco, Off, Prog1, Prog2, Prog3)	~	~			Temperature control program.
AmbientTemperature	Range(-5, 45, 0.5)	~				Currently measured temperature
SetpointTemperature	Range(5, 30, 0.5)	~				Read-only. Desired setpoint in the current program
OverruleActive	Boolean	~	~			Marks if the overrule-time will be used instead of setpoint as defined in program mode
OverruleSetpoint	Range(5, 30, 0.5)	~	✓			Current overruled setpoint temperature
OverruleTime	Range(1, 1439, 1)	~	~			Duration of the overrule period in minutes (max 23h 59min)
EcoSave	Boolean	V	V			Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going and influences the setpoint temperature. SetpointTemperature + 3°C when in cooling SetpointTemperature - 3°C when in heating



Demand	Choice(Heating, Cooling, None)	✓				Read-only, indicates whether thermostat is actively requesting heating, cooling or nothing towards the heating unit
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Device model - NHC Virtual flag

Represents the virtual device flag

Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	flag
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name

Property	Туре	Status	Control	Schedule	Logging	Information
Status	Boolean	~	~			True is on False is off



Device model - NHC Battery Metering Clamp

Represents the electricity metering module

Туре	centralmeter
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	battery-clamp
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The NHC bus mac address of this device.
Channel	The channel on the physical NHC module this meter is connected to.
MeterType	1-Phase/3-Phase

Parameter	Туре	Default	Information
ClampType	Choice(63A, 120A)	63A	Only for electricity-clamp
ShortName	Text	""	Name on eco display
Inverted	Boolean	False	MeterType = 1-Phase
Inverted1	Boolean	False	Phase 1 inverted (MeterType = 3-Phase)
Inverted2	Boolean	False	Phase 2 inverted (MeterType = 3-Phase)



Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalEnergyCharged	Range(-5461, 5461, 0.001)				✓	Unit: Wh
ElectricalEnergyDischarged	Range(-5461, 5461, 0.001)				~	Unit: Wh
ElectricalPower	Range(-201326, 201326, 1)	Y				For all phases Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower1	Range(-201326, 201326, 1)	~				For phase 1 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower2	Range(-201326, 201326, 1)	~				For phase 2 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower3	Range(-201326, 201326, 1)	~				For phase 3 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ReportInstantUsage	Boolean	V	V			If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.
ElectricalEnergy	Range(-5461, 5461, 0.001)				~	Not available



Device model - ZigBee Battery Metering Clamp

Represents a wireless electricity metering device for battery equipment

Туре	centralmeter
Technology (aka Manufacturer)	zigbee
Model (aka HWModel)	battery-clamp
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The Zigbee mac address of this device
Channel	The channel on the physical module this meter is connected to
Metertype	1-Phase/3-Phase

Parameter	Туре	Default	Information
ClampType	Choice(80A)	80A	Only 80A supported for now
Inverted	Boolean	False	MeterType = 1-Phase
Inverted1	Boolean	False	Phase 1 inverted (MeterType = 3-Phase)
Inverted2	Boolean	False	Phase 2 inverted (MeterType = 3-Phase)
Inverted3	Boolean	False	Phase 3 inverted (MeterType = 3-Phase)

	Property	Туре	Status	Control	Schedule	Logging	Information
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ElectricalEnergyCharged	Range(-5461, 5461, 0.001)			~	Unit: Wh
ElectricalEnergyDischarged	Range(-5461, 5461, 0.001)			~	Unit: Wh
ElectricalPower	Range(-201326, 201326, 1)	~			For all phases Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower1	Range(-201326, 201326, 1)	~			For phase 1 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower2	Range(-201326, 201326, 1)	~			For phase 2 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower3	Range(-201326, 201326, 1)	~			For phase 3 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ReportInstantUsage	Boolean	~	V		If true, the Electrical Power will receive status updates every 5s. When enabled, it will automatically be disabled after 30s.

Device model – NHC ZigBee Electricity Metering module (with clamp)

email: niko-api@niko.eu

Represents a wireless electricity metering device

Туре	centralmeter
Technology (aka Manufacturer)	zigbee
Model (aka HWModel)	Electricity-clamp



Identifier <nik< th=""><th>oConfigGUID></th></nik<>	oConfigGUID>
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Traits	Information
MacAddress	The Zigbee mac address of this device
Channel	The channel on the physical module this meter is connected to
Metertype	1-Phase/3-Phase

Parameter	Туре	Default	Information
ClampType	Choice(80A)	80A	Only 80A supported for now
Flow	Choice(Producer,Consumer)	Consumer	
Segment	Choice(Central,Subsegment)	Central	
InverterType	Choice (Production, Hybrid, Battery)	Production	
Inverted	Boolean	False	MeterType = 1-Phase
Inverted1	Boolean	False	Phase 1 inverted (MeterType = 3-Phase)
Inverted2	Boolean	False	Phase 2 inverted (MeterType = 3-Phase)
Inverted3	Boolean	False	Phase 3 inverted (MeterType = 3-Phase)

Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalEnergy	Range(-5461, 5461, 0.001)				~	Unit: Wh Positive = energy consumed, Negative = energy produced



ElectricalPower	Range(-201326, 201326, 1)	~			For all phases Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower1	Range(-201326, 201326, 1)	~			For phase 1 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower2	Range(-201326, 201326, 1)	>			For phase 2 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower3	Range(-201326, 201326, 1)	~			For phase 3 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ReportInstantUsage	Boolean	~	~		If true, the Electrical Power will receive status updates every 5s. When enabled, it will automatically be disabled after 30s.

Device model – NHC Electricity Metering module (with clamp)

Represents the electricity metering module

Туре	centralmeter
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	Electricity-clamp
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information
MacAddress	The NHC bus mac address of this device.
Channel	The channel on the physical NHC module this meter is connected to.
MeterType	1-Phase/3-Phase

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
Flow	Choice(Producer,Consumer)	Consumer	
Segment	Choice(Central,Subsegment)	Central	
ClampType	Choice(63A, 120A)	63A	Only for electricity-clamp
ShortName	Text	""	Name on eco display
InverterType	Choice (Production, Hybrid, Battery)	Production	
Inverted	Boolean	False	MeterType = 1-Phase
Inverted1	Boolean	False	Phase 1 inverted (MeterType = 3-Phase)
Inverted2	Boolean	False	Phase 2 inverted (MeterType = 3-Phase)
Inverted3	Boolean	False	Phase 3 inverted (MeterType = 3-Phase)



ElectricalEnergy	Range(-5461, 5461, 0.001)			~	Unit: Wh Positive = energy consumed, Negative = energy produced
ElectricalPower	Range(-201326, 201326, 1)	~			For all phases Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower1	Range(-201326, 201326, 1)	~			For phase 1 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower2	Range(-201326, 201326, 1)	~			For phase 2 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ElectricalPower3	Range(-201326, 201326, 1)	~			For phase 3 Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ReportInstantUsage	Boolean	✓	~		If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.
ElectricalEnergy	Range(-5461, 5461, 0.001)			~	Not available

Device model – NHC Metering module (pulse meter)

Represents the electricity metering module

Туре	centralmeter
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Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	electricity-pulse/gas/water
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The NHC bus mac address of this device.
Channel	The channel on the physical NHC module this meter is connected to.

Parameter	Туре	Default	Information
Flow	Choice(Producer,Consumer)	Consumer	
Segment	Choice(Central,Subsegment)	Central	
PulsesPerUnit	Range(1, 10000, 1)	100	Pulse counters (electricity-pulse/gas/water) Unit: kWh for electricity m3 for Gas/Water
ShortName	Text	""	Name on eco display

Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalEnergy	Range(-5461, 5461, 0.001)				~	Unit: Wh Positive = energy consumed, Negative = energy produced
Gasvolume	Range(0, 3.2512, 0.0001)				~	Unit: m³
WaterVolume	Range(0, 3.2512, 0.0001)				~	Unit: m³



Device model - NHC Zigbee Smart plug

Represents the connected socket devices

Туре	smartplug
Technology (aka Manufacturer)	zigbee
Model (aka HWModel)	naso
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The Zigbee mac address of this device

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
ShortName	Text	""	Name on eco display (when used in bus wiring installations)
FeedbackEnabled	Boolean	True	If true, the feedback led will show the relay status. Otherwise, the feedback led is off
MeasuringOnly	Boolean	False	If true, the relay will always be on
SwitchingOnly	Boolean	True	If true, the device will only switch (no measurements)



ElectricalPowerThreshold1	Range(0, 201326, 1)	0	Unit: W Note: 0W ~ unused
ElectricalPowerThreshold2	Range(0, 201326, 1)	0	Unit: W Note: 0W ~ unused
ElectricalPowerThreshold3	Range(0, 201326, 1)	0	Unit: W Note: 0W ~ unused
Groupld	Range (0x0001, 0x0FFF, 1)	0x0FFF	Model 'nasogroup' only

Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalPower	Range(-201326, 201326, 1)	>				Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
ReportInstantUsage	Boolean	~	~			If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.
Status	Choice(On, Off)	>	~			Turn on/off the Smart plug Status feedback: When "On": outputs is "On" When "Off": output is off
ElectricalEnergy	Range(-5461, 5461, 0.001)				~	Energy consumed Unit: Wh

Device model – Generic Zigbee Smart plug

Represents the connected smart plugs

Туре	smartplug
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Technology (aka Manufacturer)	zigbee
Model (aka HWModel)	generic
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
MacAddress	The Zigbee mac address of this device

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
ShortName	Text	""	Name on eco display (when used in bus wiring installations)

Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalPower	Range(-201326, 201326, 1)	~				Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.
Status	Choice(On, Off)	~	~			Turn on/off the Smart plug Status feedback: When "On": outputs is "On" When "Off": output is off
ReportInstantUsage	Boolean	~	~			If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.



ElectricalEnergy	Range(-5461, 5461, 0.001)				~	Energy consumed Unit: Wh
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Device model – Energy Home

Represents the electricity Home functionality

Туре	energyhome
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	generic
Identifier	<nikouuid></nikouuid>

Traits	Information

Parameter	Туре	Default	Information
PeakMode	Choice(Direct, Predict)	Direct	In programming software set via the Peak Mode routine
PeakAggregation	Choice(Maximum, Mean)	Maximum	In programming software set via the Peak Mode routine
PeakPercentile	Range(0, 100, 1)	90	In programming software set via the Peak Mode routine
PeakEstimations	Range(1, 100, 1)	20	In programming software set via the Peak Mode routine
PeakModeOptimizedPrediction	Boolean	False	In programming software set via the Peak Mode routine



Property	Туре	Status	Control	Schedule	Logging	Information
ElectricalPowerToGrid	Range(0, 999999999, 0.001)	~				Unit: W Sum ElectricalPowerProduction for all central meters.
ElectricalPowerFromGrid	Range(0, 999999999, 0.001)	~				Unit: W Sum ElectricalPowerConsumption for all central meters.
ReportInstantUsage	Boolean	~	>			If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.
ElectricalPowerProductionThresholdExceeded	Boolean	~				True when the central meter's ElectricalPowerProduction is greater than the threshold of 300W (+ 5W hysteresis), false otherwise
ElectricalEnergyToGrid	Range(0, 999999999, 0.001)				~	Energy injected in the grid Unit Wh
ElectricalEnergyFromGrid	Range(0, 999999999, 0.001)				~	Energy consumed from the grid Unit Wh
ElectricalEnergyProduction	Range(0, 999999999, 0.001)				~	Energy produced in the installation Unit Wh
ElectricalEnergySelfConsumption	Range(0, 999999999, 0.001)				>	Energy consumed in he home ElectricalEnergyProduction - ElectricalEnergyToGrid Unit Wh
ElectricalEnergyConsumption	Range(0, 999999999, 0.001)				~	ElectricalEnergySelfConsumption + ElectricalEnergyFromGrid Unit Wh



ElectricalPeakPowerToGrid	Range(0, 999999999, 0.001)		~	Unit W
ElectricalPeakPowerFromGrid	Range(0, 999999999, 0.001)		~	Unit W
ElectricalMonthlyPeakPowerFromGrid	Range(0, 999999999, 0.001)		~	Monthly peak power from grid Unit W
WaterVolume	Range(0.000, 999999.999, 0.0001)		~	Unit m ³
GasVolume	Range(0.000, 999999.999, 0.0001)		~	Unit m ³
ElectricalEnergyToGridCost	Range(-100, 100, 0.00001)		~	Energy cost injected in the grid Unit <currency></currency>
ElectricalEnergyFromGridCost	Range(-100, 100, 0.00001)		~	Energy cost consumed from the grid Unit <currency></currency>
WaterCost	Range(0, 100, 0.000001)		~	Water cost Unit <currency></currency>
GasCost	Range(0, 100, 0.000001)		~	Gas cost Unit <currency></currency>

Device model - NHC Outdoor Video Door Station

Represents the outdoor video station

Туре	videodoorstation
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	Robinsip
Identifier	<nikoconfigguid></nikoconfigguid>



Traits	Information
MacAddress	The Ethernet MAC address of the video door station
NumberOfButtons	1, 2 or 4

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
ButtonName[01-04]			User-friendly name of this button (1, 2 or 4 buttons)

Property	Туре	Status	Control	Schedule	Logging	Information
CallStatus[01-04]	Choice (Idle, Ringing, Active)	~	~			Call status for this VDS bell button (1, 2 or 4 properties depending on the number of buttons).
Status	Choice (Online, Offline)	~				Connection status for the VDS device. Used by e.g. the app to display an error message when a configured VDS is not online.
IPAddress	Range(0, 4294967295 , 1)	~				Current IP address of the VDS, set by the access control plugin (most-significant-byte holds A of A.B.C.D)

Device model - NHC Audio Control Action

Represents the action to control the Audio functions



Туре	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	audiocontrol
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
Manufacturer	Choice(Bose, Sonos)		Brand of the connected speakers or groups
Speaker	Text	""	UUID of the speaker to fetch favorites from

Property	Туре	Status	Control	Schedule	Logging	Information
Status	Choice(On, Off)	~	~			Switch speaker on/off
Playback	Choice(Playing, Paused, Buffering)	~	~			Control: use the value "Playing" or "Paused" Status feedback: returns values "Playing", "Paused", "Buffering"
Volume	Range(0, 100, 1)	~	~			Control speaker volume
Muted	Boolean	~	~			Enable/disable mute



Favourite	Text		~		Select favourite to start playing. List of favourites can be fetched from the FavouriteXX parameters of the device mentioned in the Speaker parameter
Title	Text	~			Name of the currently playing track, radio station,
VolumeAligned	Boolean	~			True when all speakers / groups have the same volume
TitleAligned	Boolean	~			True when all speakers / groups have the title
Connected	Boolean	~			True when all speakers are connected

Device model - Sonos Speaker

Represents the Sonos Speaker action (retrieving the favourites list)

Туре	audiocontrol
Technology (aka Manufacturer)	sonos
Model (aka HWModel)	generic
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information
Householdld	Internal Sonos identifier

Parameter	Type	Default	Information
raiailletei	Type	Delauit	iniormation



PlayerId	Text		Device Identifier
GroupId	Text	""	Speaker Group Identifier
GroupName	Text	""	Speaker Group Name
GroupCoordinator	Boolean	true	Indicates whether this devices acts as coordinator for the group
FavouriteXX	Text	пп	For XX - 0069
ApiVersion	Text	ни	
SoftwareVersion	Text	пп	

Device model - Bose Speaker

Represents the Bose Speaker action (retrieving the favourites list)

Туре	audiocontrol
Technology (aka Manufacturer)	bose
Model (aka HWModel)	generic
Identifier	<nikoconfigguid></nikoconfigguid>

Traits	Information

Parameter Type	Default In	nformation
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Deviceld	Text		Device Identifier
GroupId	Text	11 11	Speaker Group Identifier
GroupName	Text	""	Speaker Group Name
GroupCoordinator	Boolean	true	Indicates whether this devices acts as coordinator for the group
FavouriteXX	Text		For XX - 0005

Device model - Generic Ventilation Implementation

Represents the generic ventilation action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected partner device.

Туре	fan
Technology (aka Manufacturer)	<technology></technology>
Model (aka HWModel)	<model></model>
Identifier	<pre><partner identifier=""></partner></pre>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Туре	Default	Information
Location	Text	1111	Location GUID



LocationName	Text	""	Location Name
LocationIcon	Text		Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Program	Choice(Home, Away, Vacation, Day, Night,)	>	~			Max 8 choices Available values depend on the connected system
FanSpeed	Choice(Off, Low, Medium, High, Automatic,)	>	~			Max 8 choices Available values depend on the connected system
FanSpeed	Range(0, 100, 1)	✓	✓			unit: %
Boost	Boolean	~	✓			Boost mode active
Status	Choice(On, Off)	~	~			Fan on or off
CO ₂	Range(0, 1000000, 1)	~				unit: ppm
Humidity	Range(0, 100, 1)	~				unit: %
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	~				Connectivity status of the system

Device model - Generic Heating/Cooling Implementation

Represents the generic heating/cooling action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected partner device.

Туре	hvac
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Technology (aka Manufacturer)	<technology></technology>		
Model (aka HWModel)	<model></model>		
Identifier	<pre><partner identifier=""></partner></pre>		

Traits	Information				
PlayerName	Config software name (when coupled)				

Parameter	Туре	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
SetpointTemperature	Range(,,)	~	~			Units: degrees Celsius
AmbientTemperature	Range(,,)	~				Units: degrees Celsius
OutdoorTemperature	Range(,,)	~				Units: degrees Celsius
Program	Choice(Home, Away, Vacation, Day, Night,)	~	~			Max 8 choices Available values depend on the connected system
OperationMode	Choice(Cool, Heat, Auto)	~	~			Max 8 choices Available values depend on the connected system



FanSpeed	Choice(Off, Low, Medium, High, Automatic,)	~	~		Max 8 choices Available values depend on the connected system
FanSpeed	Range(0,100,1)	~	~		Unit: %
Status	Choice(On, Off)	~	~		System on or off
OverruleActive	Boolean	~	~		Overrule mode active or not
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	~			Connectivity status of the system

Device model - Generic Warm Water Implementation

Represents the generic warm water action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected system.

Туре	domestichotwaterunit
Technology (aka Manufacturer)	<technology></technology>
Model (aka HWModel)	<model></model>
Identifier	<pre><partner identifier=""></partner></pre>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Туре	Default	Information



Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
DomesticHotWaterTemperature	Range(,,)	~	~			unit: degrees Celcius
Program	Choice(Home, Away, Vacation, Day, Night,)	~	✓			Max 8 choices Available values depend on the connected system
Boost	Boolean	~	~			Boost mode activation
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	~				Connectivity status of the system

Device model - Generic ZigBee Heating/Cooling Implementation

Represents the generic warm water action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected system.

Туре	hvac
Technology (aka Manufacturer)	ZigBee
Model (aka HWModel)	thermostat
Identifier	<pre><partner identifier=""></partner></pre>



Traits	Information
Partner	Partner technology
Model	Partner model
MacAddress	The Zigbee mac address of this device
SupportsWeeklyProgram	Indicates whether weekly schedule can be set

Parameter	Туре	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text		Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
SetpointTemperature	Range(,,)	~	~			unit: degrees Celcius
AmbientTemperature	Range(,,)	~				unit: degrees Celcius
OutdoorTemperature	Range(,,)	~				unit: degrees Celcius
Program	Choice(Home, Away, Vacation, Day, Night,)	>				Max 8 choices Available values depend on the connected system
OperationMode	Choice(Cool, Heat, Auto)	✓	>			Max 8 choices Available values depend on the connected system
FanSpeed	Choice(Off, Low, Medium, High,	~	~			Max 8 choices



	Automatic,)				Available values depend on the connected system
FanSpeed	Range(0, 100, 1)	~	~		Available values depend on the connected system
Status	Choice(On, Off)	~	~		System on or off
OverruleActive	Boolean	~	✓		Overrule mode active or not

Device model - Generic Charging Station

Represents a generic EV charging station when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected partner device.

Туре	chargingstation
Technology (aka Manufacturer)	<technology></technology>
Model (aka HWModel)	<model></model>
Identifier	<pre><partner identifier=""></partner></pre>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Туре	Default	Information
LocationId	Text	""	Location GUID



LocationName	Text	""	Location Name
LocationIcon	Text	11 11	Location Icon GUID

Property	Туре	Status	Control	Schedule	Logging	Information
Status	Choice(On, Off)	✓	~			Switch charging station On/Off. When Off, the EV won't be able to charge
Chargingmode	Choice(Solar, Normal, Smart)	y	y			Based on this mode, the smart charging algorithm will automatically adjust the maximum charging power Solar: charge using excessive power as fast as possible Normal: charge as fast as possible. but respect capacity tariff Smart: charge as economical as possible, but respect capacity tariff
Chargingstatus	Choice(Active, Inactive, BatteryFull, Error)	~				Status of the charging session
EVStatus	Choice(Idle, Connected, Charging, Error)	~				Connection state of the car, based on SAE_J1772
ElectricalPower	Range(0,999999900, 100)	~				Unit: W
ElectricalEnergy	Range(0,999999999, 0.001)				~	Charged energy Unit: Wh
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	~				Connectivity status of the system
Boost	Boolean	~	~			Boost mode for capacity tariff Flanders



TargetDistance	Range(0,1000,1)	~	~		Distance to be charged additionally when in Smart mode
TargetTime	Text	~	~		Charging Completion Time when in Smart mode
ReachableDistance	Range(0,10000,1)	~	~		Estimated max driving distance that could be charged during the Smart mode session
TargetReached	Boolean	~			Charging target is reached during this Smart mode session
NextChargingTime	Text	~	✓		Estimated time when charging will start in Smart Mode