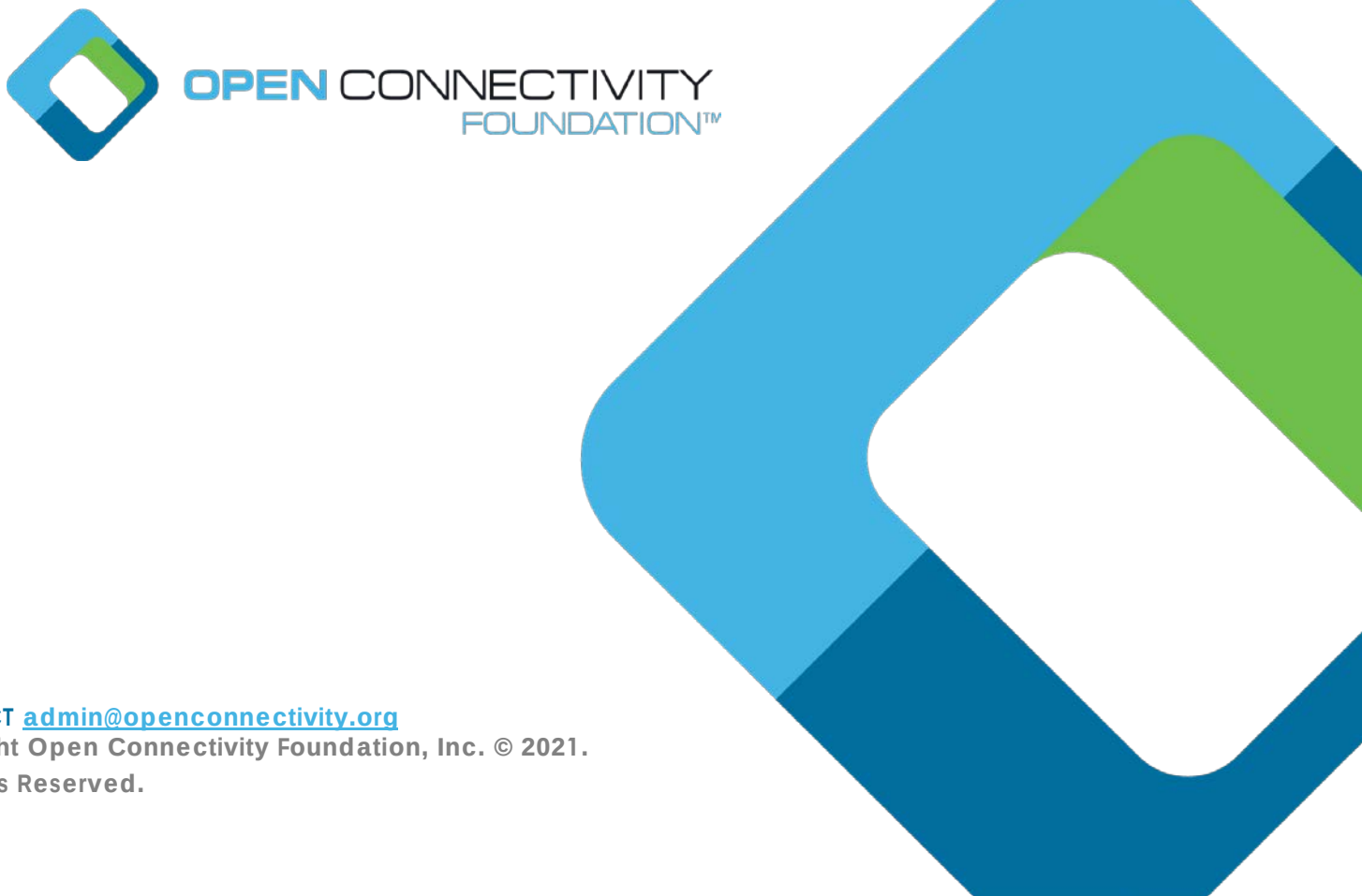
OCF Resource to EnOcean Mapping Specification

VERSION 2.2.3 | April 2021



CONTACT admin@openconnectivity.org

Legal Disclaimer

NOTHING CONTAINED IN THIS DOCUMENT SHALL BE DEEMED AS GRANTING YOU ANY KIND OF LICENSE IN ITS CONTENT, EITHER EXPRESSLY OR IMPLIEDLY, OR TO ANY INTELLECTUAL PROPERTY OWNED OR CONTROLLED BY ANY OF THE AUTHORS OR DEVELOPERS OF THIS DOCUMENT. THE INFORMATION CONTAINED HEREIN IS PROVIDED ON AN "AS IS" BASIS, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE AUTHORS AND DEVELOPERS OF THIS SPECIFICATION HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, EITHER EXPRESS OR IMPLIED, STATUTORY OR AT COMMON LAW, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OPEN CONNECTIVITY FOUNDATION, INC. FURTHER DISCLAIMS ANY AND ALL WARRANTIES OF NON-INFRINGEMENT, ACCURACY OR LACK OF VIRUSES.

CONTENTS

Figures

Tables

1 Scope

This document provides detailed mapping information between EnOcean defined EEPs and OCF defined Devices and Resources.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 30118-1:2019 Information technology -- Open Connectivity Foundation (OCF) Specification -- Part 1: Core specification
https://www.iso.org/standard/53238.html
Latest version available at: https://openconnectivity.org/specs/OCF_Core_Specification.pdf

ISO/IEC 30118-2:2019, Information technology – Open Connectivity Foundation (OCF) Specification – Part 2: Security specification
https://www.iso.org/standard/74239.html
Latest version available at: https://openconnectivity.org/specs/OCF_Security_Specification.pdf

ISO/IEC 30118-3:2019, Information technology – Open Connectivity Foundation (OCF) Specification – Part 3: Bridging specification
https://www.iso.org/standard/74240.html
Latest version available at: https://openconnectivity.org/specs/OCF_Bridging_Specification.pdf

ISO/IEC 30118-4:2019, Information technology – Open Connectivity Foundation (OCF) Specification – Part 4: Resource Type specification
https://www.iso.org/standard/74241.html
Latest version available at:
https://openconnectivity.org/specs/OCF_Resource_Type_Specification.pdf

ISO/IEC 30118-5:2019, Information technology – Open Connectivity Foundation (OCF) Specification – Part 5: Device specification
https://www.iso.org/standard/79389.html
Latest version available at: https://openconnectivity.org/specs/OCF_Device_Specification.pdf

Derived Models for Interoperability between IoT Ecosystems, Stevens & Merriam, March 2016
https://www.iab.org/wp-content/IAB-uploads/2016/03/OCF-Derived-Models-for-Interoperability-Between-IoT-Ecosystems_v2-examples.pdf

IETF RFC 4122, *A Universally Unique IDentifier (UUID) URN Namespace*, July 2005
https://www.rfc-editor.org/info/rfc4122

EnOcean Equipment Profiles (EEP) Version 2.6.8 https://www.enocean-alliance.org/wp-content/uploads/2018/02/EEP268_R3_Feb022018_public.pdf

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 30118-1:2019, ISO/IEC 30118-2:2019, and ISO/IEC 30118-3:2019 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

– ISO Online browsing platform: available at https://www.iso.org/obp

– IEC Electropedia: available at http://www.electropedia.org/

3.1.1 EnOcean Device

A Device with Sensors and/or Actuators which communicates over ERP and uses a well-defined EEP.

3.1.2 EnOcean Shadow Device

A virtual copy of an EnOcean Device which contains the last values that have been sent over ERP from the actual EnOcean Device.

3.1.3 EnOcean Bridge Platform

A Platform which contains an ERP Transceiver and can communicate over various OCF relevant protocols. It implements the EnOcean Bridging Function and the EnOcean Shadow Device List which translates well-defined EnOcean Devices to Virtual OCF Servers.

3.1.4 EnOcean Telegram

Telegram which can be send over ERP and contains different Parameters. It contains the byte-representation of actual values, a RORG and an Identifier. It may contain Teach-In Information.

3.1.5 EnOcean Teach-In Information

Contains an EEP of a real device to identify the type.

3.1.6 EnOcean Transceiver

Hardware to communicate bi-directional in the ERP.

3.2 Abbreviated terms

3.2.1 ERP

EnOcean Radio Protocol
Protocol for Sending/Receiving EnOcean Telegrams

3.2.2 EEP

EnOcean Equipment Profile
A specific Type for an EnOcean Device, which contains semantic and syntactic information of the EnOcean Device.

3.2.3 RORG

Radio-Telegram types are grouped ORGanizationally
Type of an EnOcean Telegram, which also indicates it size and byte-structure.

4 Document conventions and organization

4.1 Conventions

In this document a number of terms, conditions, mechanisms, sequences, parameters, events, states, or similar terms are printed with the first letter of each word in uppercase and the rest lowercase (e.g., Network Architecture). Any lowercase uses of these words have the normal technical English meaning.

4.2 Notation

In this document, features are described as required, recommended, allowed or DEPRECATED as follows:

Required (or shall or mandatory).

These basic features shall be implemented to comply with the Mapping Specification. The phrases "shall not", and "PROHIBITED" indicate behavior that is prohibited, i.e. that if performed means the implementation is not in compliance.

Recommended (or should).

These features add functionality supported by the Mapping Specification and should be implemented. Recommended features take advantage of the capabilities the Mapping Specification, usually without imposing major increase of complexity. Notice that for compliance testing, if a recommended feature is implemented, it shall meet the specified requirements to be in compliance with these guidelines. Some recommended features could become requirements in the future. The phrase "should not" indicates behavior that is permitted but not recommended.

Allowed (or allowed).

These features are neither required nor recommended by the Mapping Specification, but if the feature is implemented, it shall meet the specified requirements to be in compliance with these guidelines.

Conditionally allowed (CA)

The definition or behaviour depends on a condition. If the specified condition is met, then the definition or behaviour is allowed, otherwise it is not allowed.

Conditionally required (CR)

The definition or behaviour depends on a condition. If the specified condition is met, then the definition or behaviour is required. Otherwise the definition or behaviour is allowed as default unless specifically defined as not allowed.

DEPRECATED

Although these features are still described in this document, they should not be implemented except for backward compatibility. The occurrence of a deprecated feature during operation of an implementation compliant with the current document has no effect on the implementation's operation and does not produce any error conditions. Backward compatibility may require that a feature is implemented and functions as specified but it shall never be used by implementations compliant with this document.

Strings that are to be taken literally are enclosed in "double quotes".

Words that are emphasized are printed in *italic*.

5 Theory of Operation

5.1 Interworking Approach

The interworking between EnOcean Devices and OCF defined Devices and Resources is modelled using the derived model syntax described in Derived Models for Interoperability between IoT Ecosystems.

5.2 General

All statements are terminated with a carriage return.

5.2.1 Value Assignment

The equals sign (=) is used to assign one value to another. The assignee is on the left of the operator; the value being assigned on the right.

5.2.2 Property Naming

All Property names are identical to the name used by the original model; for example from the OCF Temperature Resource the Property name "temperature" is used whereas when referred to the derived ecosystem then the semantically equivalent Property name is used.

The name of the OCF defined Property is prepended by the ecosystem designator "ocf" to avoid ambiguity (e.g. "ocf.step")

5.2.3 Range

The range on the OCF side is fixed.

5.2.4 Arrays

An array element is indicated by the use of square brackets "[]" with the index of the element contained therein, e.g. range [1]. All arrays start at an index of 0.

5.2.5 Default Mapping

There are cases where the specified mapping is not possible as one or more of the Properties being mapped is optional in the source model. In all such instances a default mapping is provided. (e.g. "transitiontime = 1")

5.2.6 Conditional Mapping

When a mapping is dependent on the meeting of other conditions then the syntax:

If "condition", then "mapping"

is applied.

E.g. if onoff = false, then ocf.value = false

5.2.7 Method Invocation

The invocation of a command from the derived ecosystem as part of the mapping from an OCF Resource is indicated by the use if a double colon "::" delimiter between the applicable resource, service, interface or other construct identifier and the command name. The command name always includes trailing parentheses which would include any parameters should they be passed.

6 EnOcean Translation

6.1 Operational Scenarios

The overall goal is to make EnOcean Devices appear as OCF Servers in a local network. Like in Figure 1 every EnOcean Device is represented as an EnOcean Shadow Device on the EnOcean Bridge Platform. An EnOcean Shadow Device contains the last values that have been sent over ERP from the real EnOcean device. Over the EnOcean Bridging Function each EnOcean Shadow Device shall be represented as a Virtual OCF Server. The EnOcean Bridging Function supports Asymmetric Server Bridging only since an EnOcean Device always will be represented as an OCF Server and not as an OCF Client.

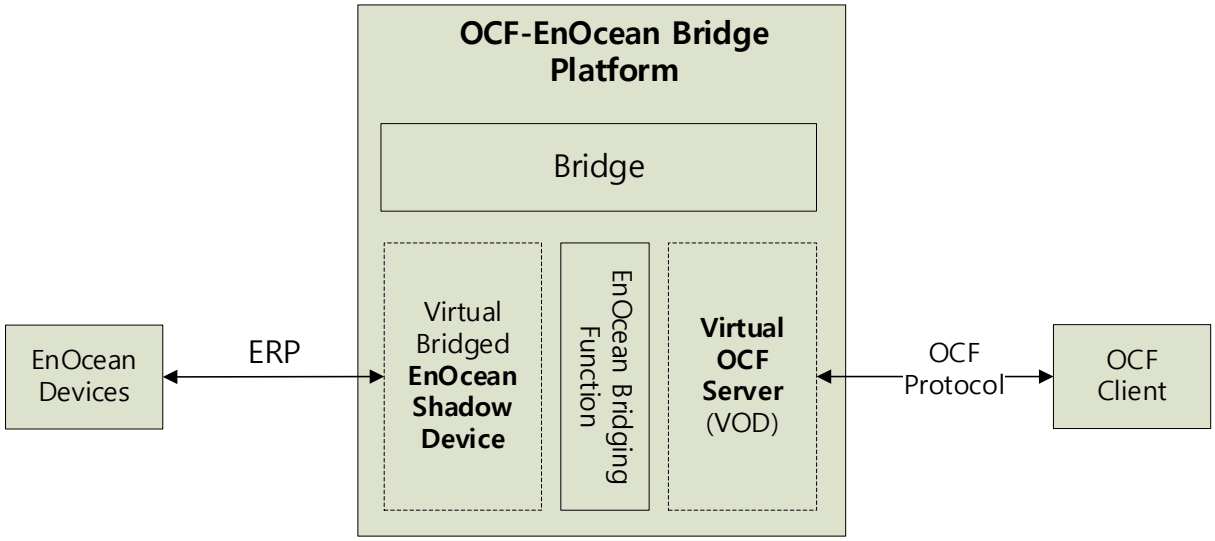


Figure 1– OCF EnOcean Bridge Platform and Components

6.1.1 Use case for EnOcean Bridging

In Figure 2 a use-case for EnOcean Bridging is shown. An EnOcean Bridge Platform which provides an EnOcean Device as an EnOcean Shadow Device can be retrieved by an OCF Client and used to trigger other OCF Devices over rules or just show the actual value of the EnOcean Shadow Device. The connection between the OCF Client and the EnOcean Bridge Platform could be every protocol OCF supports. For the communication between an actual EnOcean Device and the EnOcean Bridge Platform the ERP shall be used.

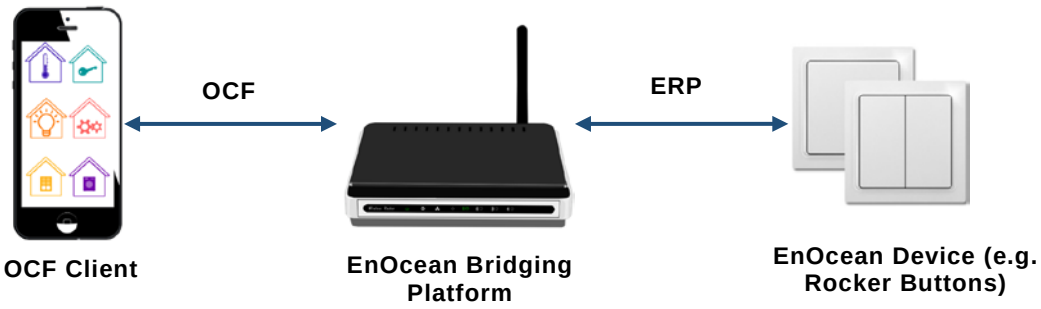


Figure 2 – Case for EnOcean Bridging

6.2 Requirements specific to EnOcean Bridging Function

6.2.1 Introduction

Each EnOcean Device specified in this document follows the EEP Specification 2.6.8 or higher and uses one telegram type to transmit data over the ERP. To identify a new EnOcean Device the EnOcean Teach-In information is required in the first EnOcean Telegram sent by the EnOcean Device to the EnOcean Bridge Platform.

The EnOcean Bridge Platform acts as an EnOcean Gateway/Transceiver in the ERP. It is responsible for Teaching-In new devices and keeping the EnOcean Shadow Devices updated with the real values from the EnOcean Devices. Through the EnOcean Bridging Function each EnOcean

Shadow Device will be translated, not the real devices directly, since they are commonly Energy Harvesting devices and can't communicate bi-directly.

6.2.2 Exposing EnOcean Devices to OCF Clients

6.2.2.1 General Requirements

Because the information structure of EnOcean Devices is different from OCF Devices and Resources a structure mapping is given by Table 1. An EnOcean Device will always be mapped as one OCF Device with one or multiple Resources.

Table 1 - Translation Rule between EnOcean Devices and OCF Data Models

From EnOcean	Mapping count	To OCF	Mapping count
EnOcean Device	1	OCF Device OCF Resource	1 1..n
EnOcean Telegram Parameter	1	OCF Resource Property	1..n

The Telegram Parameters of a Telegram sent by an EnOcean Device are mapped on Resource(s) and/or Resource Properties. The mapping count of Telegram Parameters on Resources and Resource Properties depends strongly on the individual EnOcean Device.

Table 2 - EnOcean to OCF Mapping Example

From EnOcean		To OCF	
EnOcean Device	A5-02-01 (Temperature Sensor)	OCF Device	oic.d.sensor
		OCF Resource	oic.r.temperature
EnOcean Telegram	Temperature value	OCF Resource Properties	temperature.value
Meta Information from EEP Spec	Unit (C)		temperature.unit
	Range (-40°C to 0°C)		temperature.range

In Table 2 a mapping example for a simple temperature sensor can be found. The type is identified by the EEP and the EnOcean Device is represented by a single OCF Device and one or more OCF Resources. The temperature value of the EnOcean Device is mapped into a temperature Resource and into the matching OCF Resource property "value". Meta Information provided by the EEP Spec can also be used as OCF Resource Properties. In this example the unit of the value and the range will be mapped into suitable Properties.

The EnOcean Bridging Function shall always follow the requirements in clause 8 to translate all EnOcean Devices and Telegram Parameters in OCF Devices, OCF Resources and Properties. It contains well-defined translation rules for each EnOcean Device. This kind of deep translation is the only way to represent EnOcean Devices as OCF Devices. On the fly translation is technically not possible and shall not be supported.

A Resource URI can be chosen freely since the Bridging Function knows all semantic information of the EnOcean Devices and the OCF Data Model. Maintaining the EnOcean Shadow Devices and how the translation rules will be realised is also implementation specific.

If received Telegrams on the EnOcean Bridge Platform are not readable because they are not following any well-defined EEP they shall be dropped and the EnOcean Bridge Platform may throw a warning message.

6.2.2.2 Translation for well-defined EEPs

If an EnOcean Device uses an EEP which is well-defined in clause 8 the EnOcean Bridging Function shall follow it to translate the Device and it's Telegram Parameters to an OCF Device, one or more OCF Resources and OCF Resource Properties.

EnOcean Device Name (EEP)	EnOcean Telegram Parameters	OCF Resource Type(s)	OCF Device Type	OCF Device Name
Push Button (F6-01-01)	Push Button Released Push Button Pressed	oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 2 Rocker (F6-02-XX)	Rocker 1st Action AI Rocker 1st Action AO Rocker 1st Action BI Rocker 1st Action BO	oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 4 Rocker (F6-03-XX)	Rocker 1st Action AI Rocker 1st Action AO Rocker 1st Action BI Rocker 1st Action BO Rocker 1st Action CI Rocker 1st Action CO Rocker 1st Action DI Rocker 1st Action DO	oic.r.button oic.r.button oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Position Switch (F6-04-01)	Key Card activated Key Card taken out	oic.r.keycardswitch	oic.d.sensor	Generic Sensor
Position Switch (F6-04-02)	Key Card inserted Key Card taken out	oic.r.keycardswitch	oic.d.sensor	Generic Sensor
Liquid Leakage Detector (Water) (F6-05-01)	Alert Signal	oic.r.sensor.water	oic.d.sensor	Generic Sensor
Smoke Detector (F6-05-02)	Smoke Alarm ON Smoke Alarm OFF	oic.r.sensor.smoke	oic.d.sensor	Generic Sensor
Single Input Contact (D5-00-01)	Open Closed	oic.r.sensor.contact	oic.d.sensor	Generic Sensor
Temperature Sensor (A5-02-XX)	Temperature value Unit (defined by spec) Range (by type spec)	oic.r.temperature	oic.d.sensor	Generic Sensor
Temperature and Humidity Sensor (A5-04-XX)	Temperature value Temperature unit (by spec) Temperature range (by type spec) Humidity (%)	oic.r.temperature oic.r.humidity	oic.d.sensor	Generic Sensor
Barometric Sensor (A5-05-01)	Barometer value	oic.r.sensor. atmosphericpressure	oic.d.sensor	Generic Sensor
Light Sensor (A5-06-XX)	Illumination value (linear, lx) range (by type Spec)	oic.r.sensor.illuminance	oic.d.sensor	Generic Sensor
Occupancy Sensor (A5-07-XX)	PIR Status Uncertain PIR Status Motion detected	oic.r.sensor.presence	oic.d.sensor	Generic Sensor

Light, Temperature and Occupancy Sensor (A5-08-XX)	Temperature value Temp Unit (by spec Temp Range (by TYPE spec) Illumination value Illumination range (by type spec) Occupancy	oic.r.temperature oic.r.sensor.illuminance oic.r.sensor.presence	oic.d.sensor	Generic Sensor

604

605 ### 6.2.2.3 Exposing an EnOcean Device as a Virtual OCF Device

606 **Table 3 – "oic.wk.p" Resource Type definition**

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
Platform ID	pi	Unique identifier for the physical platform (UIUID); this shall be a UUID in accordance with IETF RFC 4122. It is recommended that the UUID be created using the random generation scheme (version 4 UUID) specific in the RFC.	Y	(none)	Bridging Function should return a randomly-generated UUID (Please see section 4.4 of IETF RFC 4122 for randomly-generated UUID)	N
Manufacturer Name	mnmn	Name of manufacturer (not to exceed 16 characters)	Y	ManID	The ID of the EnOcean Device contains the Manufacturer ID of it, which shall be used by Bridging Function to resolve it to the corresponding name. If the name exceeds 16 Characters a Manufacturer Short name shall be used.	Y
Manufacturer Details Link (URL)	mnml	URL to manufacturer (not to exceed 32 characters)	N	(none)	(none)	N
Model Number	mnmo	Model number as designated by manufacturer	N	(none)	(none)	N
Date of Manufacture	mndt	Manufacturing date of device	N	(none)	(none)	N
Platform Version	mnpv	Version of platform – string (defined by manufacturer)	N	(none)	(none)	N
OS Version	mnos	Version of platform resident OS – string (defined by manufacturer)	N	(none)	(none)	N
Hardware Version	mnhw	Version of platform hardware	N	(none)	(none)	N
Firmware version	mnfv	Version of device firmware	N	(none)	(none)	N

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
Support link	mnsl	URI that points to support information from manufacturer	N	(none)	(none)	N
SystemTime	st	Reference time for the device	N	(none)	(none)	N
Vendor ID	vid	Vendor defined string for the platform. The string is freeform and up to the vendor on what text to populate it.	N	(none)	(none)	N

607

608 **Table 4 – "oic.wk.d" Resource Type definition**

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
(Device) Name	n	Human friendly name For example, “Bob’s Thermostat”	Y	(none)	Should be set by the user in the EnOcean Bridge Platform configuration or on Onboarding.	N
Spec Version	icv	Spec version of ISO/IEC 30118-1:2019 this device is implemented to, The syntax is "core.major.minor”]	Y	(none)	Spec version of ISO/IEC 30118-1:2019 that the Bridging Platform implements should return its own value	N
Device ID	di	Unique identifier for Device. This value shall be as defined in ISO/IEC 30118-2:2019 for DeviceID.	Y	(none)	Use as defined in ISO/IEC 30118-2:2019	N
Protocol-Independent ID	piid	Unique identifier for OCF Device (UUID)	Y	(none)	Bridging Function should return a randomly-generated UUID (Please see section 4.4 of IETF RFC 4122 for randomly-generated UUID)	N
Data Model Version	dmv	Spec version(s) of the vertical specifications this device data model is implemented to. The syntax is a comma separated list of "<vertical>.major.minor”]. <vertical> is the name of the	Y	(none)	Bridging Function should return its own value.	N

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
		vertical (i.e. sh for Smart Home)				
Localized Descriptions	ld	Detailed description of the Device, in one or more languages. This property is an array of objects where each object has a "language" field (containing an RFC 5646 language tag) and a "value" field containing the device description in the indicated language.	N	(none)	(none)	
Software Version	sv	Version of the device software.	N	(none)	(none)	N
Manufacturer Name	dmn	Name of manufacturer of the Device, in one or more languages. This property is an array of objects where each object has a "language" field (containing an RFC 5646 language tag) and a "value" field containing the manufacturer name in the indicated language.	N	ManID	The ID of the EnOcean Device contains the Manufacturer ID of it, which shall be used by Bridging Function to resolve it to the corresponding name.	Y
Model Number	dmno	Model number as designated by manufacturer.	N	(none)	(none)	N

609

610 **Table 5 – "oic.wk.con" Resource Type definition**

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
(Device) Name	n	Human friendly name For example, “Bob’s Thermostat”	Y	(none)	Should be set by the user in the EnOcean Bridge Platform configuration or on Onboarding.	N
Location	loc	Provides location information where available.	N	(none)	(none)	N
Location Name	locn	Human friendly name for location For example, “Living Room”.	N	(none)	(none)	N
Currency	c	Indicates the currency that is	N	(none)	(none)	N

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
		used for any monetary transactions				
Region	r	Free form text Indicating the current region in which the device is located geographically. The free form text shall not start with a quote (").	N	(none)	(none)	N
Localized Names	ln	Human-friendly name of the Device, in one or more languages. This property is an array of objects where each object has a "language" field (containing an RFC 5646 language tag) and a "value" field containing the device name in the indicated language. If this property and the Device Name (n) property are both supported, the Device Name (n) value shall be included in this array.	N	(none)	(none)	N
Default Language	dl	The default language supported by the Device, specified as an RFC 5646 language tag. By default, clients can treat any string property as being in this language unless the property specifies otherwise.	N	(none)	(none)	N

6.2.3 Protocol Translation between EnOcean and OCF

6.2.3.1 EnOcean Behavior translated to OCF Actions

On the EnOcean side of the EnOcean Bridge Platform there are overall three different behaviours. A Translation from it to OCF Actions is given by Table 6.

Table 6 - EnOcean Behaviour translated to OCF

EnOcean Behaviour	OCF Action
Teach-In (EEP) new device	Create VOD and proper resources
Receiving Telegram of a Teached-In Device	Update Resource(s), notify observers
Deleting Device (by User)	Remove VOD and Resource(s)

Teaching-In a new device over a proper telegram results in a new virtual OCF Server and corresponding Resources. Depending on the EnOcean Device there may be already one or more real values from the EnOcean Device in the telegram which shall be used to initiate the Resource Properties. The new EnOcean Device will be saved as an EnOcean Shadow Device in a suitable data representation. If the Teach-In telegram contains an invalid EEP or an EEP which isn't specified yet it shall not be translated. If the EEP is vendor specific but may be mapped on existing specified EEPs a translation could be possible.

If a telegram of an EnOcean Device is received by the EnOcean Bridge Platform which is already Teached-In and maintained in the EnOcean Shadow Device List the belonging OCF Resources will be updated. If there are existing observers on the resource a notify to each observer will be executed. If the Device ID of the Telegram doesn't fit on any already Teached-In EnOcean device, it will be ignored.

Users have the possibility to delete Teached-In Devices. If an EnOcean Device will be deleted all corresponding Resources and the VOD shall be deleted as well.

6.2.3.2 OCF Actions and EnOcean Bridge results

In Table 7 the OCF actions are displayed with the corresponding EnOcean translation results. Each action has different effects on the Bridging Function.

Table 7 - OCF Actions translated to EnOcean

OCF Action	EnOcean Bridge Behaviour
Discovery	Answering with OCF Representation of all EnOcean Shadow Devices
Retrieve	Answering with OCF Representation of a Device or Resources of the EnOcean Shadow devices, not the actual EnOcean Device
Observe	Register on a resource of an EnOcean Shadow Device
Update	(Not supported yet)

Answering to an OCF Discovery will result in a representation of all EnOcean Shadow Devices which are Teached-In in the EnOcean Bridge Platform. The Bridging Function is following the proper translation rules for each individual device. This operation has no impact on the EnOcean Device directly.

A retrieve operation also will be processed through the Bridging Function with an EnOcean Shadow Device. It will deliver the last known value of the actual EnOcean Device, since these Devices mostly can't communicate bi-directly.

Observe Requests will be attached to the respective EnOcean Shadow Device. Each EnOcean Shadow Device contains a list of registered observers and will notify them if a new value from the proper EnOcean Device is received.

Since the EnOcean Device mapping list doesn't contain actuators yet update requests are not supported by the EnOcean Bridge Platform.

7 Device Type Mapping

7.1 Introduction

This clause contains the mappings from EnOcean EEPs to OCF Device Types and OCF Resource Types. Additionally, all different Telegram Parameters with corresponding OCF Resource(s) will be presented.

7.2 EnOcean Equipment Profiles to OCF Device Types and OCF Resource Types

All supported EEPs are represented as “oic.d.sensor” Devices. Actuators are currently not supported.

Table 8 - EnOcean to OCF Mapping Table

EnOcean Device Name (EEP)	EnOcean Telegram Parameters	OCF Resource Type(s)	OCF Device Type	OCF Device Name
Push Button (F6-01-01)	Push Button Released Push Button Pressed	oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 2 Rocker (F6-02-XX)	Rocker 1st Action AI Rocker 1st Action AO Rocker 1st Action BI Rocker 1st Action BO	oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 4 Rocker (F6-03-XX)	Rocker 1st Action AI Rocker 1st Action AO Rocker 1st Action BI Rocker 1st Action BO Rocker 1st Action CI Rocker 1st Action CO Rocker 1st Action DI Rocker 1st Action DO	oic.r.button oic.r.button oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Position Switch (F6-04-01)	Key Card activated Key Card taken out	oic.r.keycardswitch	oic.d.sensor	Generic Sensor
Position Switch (F6-04-02)	Key Card inserted Key Card taken out	oic.r.keycardswitch	oic.d.sensor	Generic Sensor
Liquid Leakage Detector (Water) (F6-05-01)	Alert Signal	oic.r.sensor.water	oic.d.sensor	Generic Sensor
Smoke Detector (F6-05-02)	Smoke Alarm ON Smoke Alarm OFF	oic.r.sensor.smoke	oic.d.sensor	Generic Sensor
Single Input Contact (D5-00-01)	Open Closed	oic.r.sensor.contact	oic.d.sensor	Generic Sensor
Temperature Sensor (A5-02-XX)	Temperature value Unit (defined by spec) Range (by type spec)	oic.r.temperature	oic.d.sensor	Generic Sensor
Temperature and Humidity Sensor (A5-04-XX)	Temperature value Temperature unit (by spec) Temperature range (by type spec) Humidity (%)	oic.r.temperature oic.r.humidity	oic.d.sensor	Generic Sensor
Barometric Sensor (A5-05-01)	Barometer value	oic.r.sensor. atmosphericpressure	oic.d.sensor	Generic Sensor
Light Sensor (A5-06-XX)	Illumination value (linear, lx) range (by type Spec)	oic.r.sensor.illuminance	oic.d.sensor	Generic Sensor
Occupancy Sensor (A5-07-XX)	PIR Status Uncertain PIR Status Motion detected	oic.r.sensor.presence	oic.d.sensor	Generic Sensor

Light, Temperature and Occupancy Sensor (A5-08-XX)	Temperature value Temp Unit (by spec Temp Range (by TYPE spec) Illumination value Illumination range (by type spec) Occupancy	oic.r.temperature oic.r.sensor.illuminance oic.r.sensor.presence	oic.d.sensor	Generic Sensor

7.3 Telegram Parameters

7.3.1 Push Button

A Push Button value in EnOcean only contains the information if a button is pressed or released. It is represented as an “oic.r.button” Resource which value is flipping from “false” to “true” or from “true” to “false” each time the value signals that the EnOcean Push Button has been pressed.

7.3.2 Rocker 1st Action

This Parameter is used in Rocker Buttons and contains the actual state of a Rocker Button and which Rocker has been pressed. Each Rocker is represented as an “oic.r.button” Resource. The current state of a Rocker changes the value of the matching OCF Resource (e.g. State AI – “true”, AO – “false”).

Rocker Buttons contain another Parameter called Rocker 2nd Action. This Parameter is not translated since it contains the same semantic information as Rocker 1st Action.

7.3.3 Key Card

A Key Card Parameter can represent two States. The first one indicates that a valid Card has been inserted. The second state describes that the Card has been taken out. It is represented as an “oic.r.keycardswitch” resource.

7.3.4 Alert Signals

Alarm Signal Parameters are simple On/Off Parameters. It contains the Information if an Alarm has been triggered or if everything seems fine (for example Smoke Alarm or Water Leakage). Depending on the semantic use of this field it is mapped on an “oic.r.sensor.smoke” or on an “oic.r.sensor.water” Resource. The semantic use of this Parameter is specified by the EEP.

7.3.5 Open/Closed

Single Input Contacts only transfer a Parameter which indicates that a Contact has been Open or Closed. This generic type can be used from many different EnOcean Devices. Since there is no other semantic information available the only suiting resource is the “oic.r.sensor.contact” Resource.

7.3.6 Temperature

A Temperature Parameter contains the actual temperature in an 8 bit or 10 bit resolution. The Unit and the Range are specified through the EEP. The “oic.r.temperature” Resource is used for translation of this Parameter. The standard Unit of this Parameter is “°C”.

7.3.7 Barometer

This Parameter contains a 10 bit value and is translated to an “oic.r.sensor.atmosphericpressure” Resource. The used Unit and Range are specified by the EEP. The standard Unit of this Parameter is “hPa”.

7.3.8 Illumination

The Illumination Parameter is used for the actual illuminance value. It normally uses an 8 bit resolution. Unit and Range are specified by the used EEP. The standard Unit of this Parameter is “lx”. It is mapped on an “oic.r.sensor.illuminance” Resource.

7.3.9 Humidity

This Parameter is used for humidity measurements and only contains the relative value in percent. The range on all EEPs which are using this field is 0 % to 100 %. It is mapped on an “oic.r.humidity” Resource.

7.3.10 PIR/Occupancy

The Parameter of the Passive Infrared Sensors for Motion Detection contains the Information if there has been a motion or not. The “oic.r.sensor.presence” is used for this field.

7.4 Indirect Parameters through EnOcean Equipment Profile

7.4.1 Introduction

In clause 8 some values of OCF Resources are already filled with semantic information. This information is given by the corresponding EEP of the EnOcean Device and is not changed during translation.

7.4.2 Range

EnOcean Devices with Parameters like Illumination, Temperature or other continuous value types have a specified range. This range is not transmitted over ERP and can only be acquired over the EEP. It consists of a min and a max value and can be mapped into the generic range of OCF Resources.

7.4.3 Unit

EnOcean Devices with Parameters like Illumination, Temperature or other continuous value types have a specified unit. This unit is not transmitted over ERP and can only be acquired over the EEP. It can be mapped as a unit into OCF Resources.

8 Detailed Mapping APIs

8.1 Introduction

This clause provides a Device Type mapping description (using JSON that aligns with the Derived Modelling syntax described in Derived Models for Interoperability between IoT Ecosystems) for all EnOcean EEPs and OCF Resources that are within scope.

8.2 Barometric Sensor EEP A5-05-01

8.2.1 Derived model

The derived model: "A5_05_01".

8.2.2 Property definition

Table 9 provides the detailed per Property mapping for "A5_05_01".

Table 9 – The Property mapping for "A5_05_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
barometer	oic.r.sensor.atmosphericpressure	oic.r.sensor.atmosphericpressure.atmosphericPressure = barometeroic.r.sensor.atmosphericpressure.range = [500.0, 1150.0]	N/A

Table 10 provides the details of the Properties that are part of "A5_05_01".

Table 10 – The Properties of "A5_05_01".

EnOcean Property name	Type	Required	Description
barometer	number	yes	Current Pressure

8.2.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/BarometricSensor.A5_05_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Barometric Sensor EEP A5-05-01",
  "definitions": {
    "A5_05_01": {
      "type": "object",
      "properties": {
        "barometer": {
          "type": "number",
          "description": "Current Pressure",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.atmosphericpressure",
            "x-to-ocf": [
                "oic.r.sensor.atmosphericpressure.atmosphericPressure = barometer",
                    "oic.r.sensor.atmosphericpressure.range = [500.0, 1150.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_05_01"}
  ],
  "required": [ "barometer"]
}
```

8.3 Key Card Switch, EEP F6-04-01

8.3.1 Derived model

The derived model: "F6_04_01".

8.3.2 Property definition

Table 11 provides the detailed per Property mapping for "F6_04_01".

Table 11 – The Property mapping for "F6_04_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
KeyCard	oic.r.keycardswitch	if (KeyCard == 112): oic.r.keycardswitch.stateofcard = 'validCardInserted'else: oic.r.keycardswitch.stateofcard = 'validCardNotInserted'	N/A

Table 12 provides the details of the Properties that are part of "F6_04_01".

Table 12 – The Properties of "F6_04_01".

EnOcean Property name	Type	Required	Description
KeyCard	number	yes	Valid Key Card inserted or Taken out

8.3.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/KeyCardSwitch.F6_04_01.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Key Card Switch, EEP F6-04-01",
    "definitions": {
        "F6_04_01": {
            "type": "object",
            "properties": {
                "KeyCard": {
                    "type": "number",
                    "description": "Valid Key Card inserted or Taken out",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.keycardswitch",
                        "x-to-ocf": [
                               "if (KeyCard == 112):",
                               "   oic.r.keycardswitch.stateofcard = 'validCardInserted'",
                                   "else:",
                                       "   oic.r.keycardswitch.stateofcard =
'validCardNotInserted'"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_04_01"
        }
    ],
    "required": [
        "KeyCard"
    ]
}
```

8.4 Key Card Switch, EEP F6-04-02

8.4.1 Derived model

The derived model: "F6_04_02".

8.4.2 Property definition

Table 13 provides the detailed per Property mapping for "F6_04_02".

Table 13 – The Property mapping for "F6_04_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
StateOfCard	oic.r.keycardswitch	if (StateOfCard == 1): oic.r.keycardswitch.stateofcard = 'validCardInserted'else: oic.r.keycardswitch.stateofcard = 'validCardNotInserted'	N/A

Table 14 provides the details of the Properties that are part of "F6_04_02".

Table 14 – The Properties of "F6_04_02".

EnOcean Property name	Type	Required	Description
StateOfCard	number	yes	Valid Key Card inserted or Taken out

8.4.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/KeyCardSwitch.F6_04_02.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Key Card Switch, EEP F6-04-02",
    "definitions": {
        "F6_04_02": {
            "type": "object",
            "properties": {
                "StateOfCard": {
                    "type": "number",
                    "description": "Valid Key Card inserted or Taken out",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.keycardswitch",
                        "x-to-ocf": [
                               "if (StateOfCard == 1):",
                               "   oic.r.keycardswitch.stateofcard = 'validCardInserted'",
                                       "else:",
                                       "   oic.r.keycardswitch.stateofcard =
'validCardNotInserted'"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_04_02"
        }
    ],
    "required": [
        "StateOfCard"
    ]
}
```

8.5 Light Sensor EEP A5-06-01

8.5.1 Derived model

The derived model: "A5_06_01".

8.5.2 Property definition

Table 15 provides the detailed per Property mapping for "A5_06_01".

Table 15 – The Property mapping for "A5_06_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [300.0, 60000.0]	N/A

Table 16 provides the details of the Properties that are part of "A5_06_01".

Table 16 – The Properties of "A5_06_01".

EnOcean Property name	Type	Required	Description
lightsensor	number	yes	Current Illuminance in Lux

8.5.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/LightSensor.A5_06_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light Sensor EEP A5-06-01",
  "definitions": {
    "A5_06_01": {
      "type": "object",
      "properties": {
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
              "oic.r.sensor.illuminance.illuminance = lightsensor",
              "oic.r.sensor.illuminance.range = [300.0, 60000.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_06_01"}
  ],
  "required": [ "lightsensor"]
}
```

8.6 Light Sensor EEP A5-06-02

8.6.1 Derived model

The derived model: "A5_06_02".

8.6.2 Property definition

Table 17 provides the detailed per Property mapping for "A5_06_02".

Table 17 – The Property mapping for "A5_06_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 1020.0]	N/A

Table 18 provides the details of the Properties that are part of "A5_06_02".

Table 18 – The Properties of "A5_06_02".

EnOcean Property name	Type	Required	Description
lightsensor	number	yes	Current Illuminance in Lux

8.6.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/LightSensor.A5_06_02.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light Sensor EEP A5-06-02",
  "definitions": {
    "A5_06_02": {
      "type": "object",
      "properties": {
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
              "oic.r.sensor.illuminance.illuminance = lightsensor",
              "oic.r.sensor.illuminance.range = [0.0, 1020.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_06_02"}
  ],
  "required": [ "lightsensor"]
}
```

8.7 Light Sensor EEP A5-06-03

8.7.1 Derived model

The derived model: "A5_06_03".

8.7.2 Property definition

Table 19 provides the detailed per Property mapping for "A5_06_03".

Table 19 – The Property mapping for "A5_06_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 1000.0]	N/A

Table 20 provides the details of the Properties that are part of "A5_06_03".

Table 20 – The Properties of "A5_06_03".

EnOcean Property name	Type	Required	Description
lightsensor	number	yes	Current Illuminance in Lux

8.7.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/LightSensor.A5_06_03.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light Sensor EEP A5-06-03",
  "definitions": {
    "A5_06_03": {
      "type": "object",
      "properties": {
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
              "oic.r.sensor.illuminance.illuminance = lightsensor",
              "oic.r.sensor.illuminance.range = [0.0, 1000.0]"

            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_06_03"}
  ],
  "required": [ "lightsensor"]
}
```

8.8 Light Sensor EEP A5-06-04

8.8.1 Derived model

The derived model: "A5_06_04".

8.8.2 Property definition

Table 21 provides the detailed per Property mapping for "A5_06_04".

Table 21 – The Property mapping for "A5_06_04".

EnOcean Property name	OCF Resource	To OCF	From OCF
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 65535.0]	N/A

Table 22 provides the details of the Properties that are part of "A5_06_04".

Table 22 – The Properties of "A5_06_04".

EnOcean Property name	Type	Required	Description
lightsensor	number	yes	Current Illuminance in Lux

8.8.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/LightSensor.A5_06_04.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
```

```
  "title": "Light Sensor EEP A5-06-04",
  "definitions": {
    "A5_06_04": {
      "type": "object",
      "properties": {
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
              "oic.r.sensor.illuminance.illuminance = lightsensor",
              "oic.r.sensor.illuminance.range = [0.0, 65535.0]"


            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_06_04"}
  ],
  "required": [ "lightsensor"]
}
```

8.9 Light Sensor EEP A5-06-05

8.9.1 Derived model

The derived model: "A5_06_05".

8.9.2 Property definition

Table 23 provides the detailed per Property mapping for "A5_06_05".

Table 23 – The Property mapping for "A5_06_05".

EnOcean Property name	OCF Resource	To OCF	From OCF
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 10200.0]	N/A

Table 24 provides the details of the Properties that are part of "A5_06_05".

Table 24 – The Properties of "A5_06_05".

EnOcean Property name	Type	Required	Description
lightsensor	number	yes	Current Illuminance in Lux

8.9.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/LightSensor.A5_06_05.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light Sensor EEP A5-06-05",
  "definitions": {
    "A5_06_05": {
      "type": "object",
      "properties": {
```

```
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
              "oic.r.sensor.illuminance.illuminance = lightsensor",
              "oic.r.sensor.illuminance.range = [0.0, 10200.0]"

            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    },
    "type": "object",
    "allOf": [
      {"$ref": "#/definitions/A5_06_05"}
    ],
    "required": [ "lightsensor"]
}
```

8.10 Light, Temperature and Occupancy Sensor EEP A5-08-01

8.10.1 Derived model

The derived model: "A5_08_01".

8.10.2 Property definition

Table 25 provides the detailed per Property mapping for "A5_08_01".

Table 25 – The Property mapping for "A5_08_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR==0): oic.r.sensor.presence.value = trueelse: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 510.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [0.0, 51.0]	N/A

Table 26 provides the details of the Properties that are part of "A5_08_01".

Table 26 – The Properties of "A5_08_01".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy
lightsensor	number	yes	Current Illuminance in Lux
temperature	number	yes	Current Temperature

8.10.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_01.json#"
,
```



```
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light, Temperature and Occupancy Sensor EEP A5-08-01",
  "definitions": {
    "A5_08_01": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
               "if (PIR==0):",
                       "   oic.r.sensor.presence.value = true",
                    "else:",
                        "   oic.r.sensor.presence.value = false"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "lightsensor": {
              "type": "number",
              "description": "Current Illuminance in Lux",
              "x-ocf-conversion": {
                "x-ocf-alias": "oic.r.sensor.illuminance",
                "x-to-ocf": [
                    "oic.r.sensor.illuminance.illuminance = lightsensor",
                    "oic.r.sensor.illuminance.range = [0.0, 510.0]"
                ],
                "x-from-ocf": [
                  "N/A"
                ]
              }
        },
        "temperature": {
              "type": "number",
              "description": "Current Temperature",
              "x-ocf-conversion": {
                "x-ocf-alias": "oic.r.temperature",
                "x-to-ocf": [
                    "oic.r.temperature.temperature = temperature",
                    "oic.r.temperature.units = C",
                    "oic.r.temperature.range = [0.0, 51.0]"
                ],
                "x-from-ocf": [
                  "N/A"
                ]
              }
        }

      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_08_01"}
  ],
  "required": [ "PIR", "temperature", "lightsensor"]
}
```

8.11 Light, Temperature and Occupancy Sensor EEP A5-08-02

8.11.1 Derived model

The derived model: "A5_08_02".

8.11.2 Property definition

Table 27 provides the detailed per Property mapping for "A5_08_02".

Table 27 – The Property mapping for "A5_08_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR==0): oic.r.sensor.presence.value = trueelse: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 1020.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [0.0, 51.0]	N/A

Table 28 provides the details of the Properties that are part of "A5_08_02".

Table 28 – The Properties of "A5_08_02".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy
lightsensor	number	yes	Current Illuminance in Lux
temperature	number	yes	Current Temperature

8.11.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_02.json#"
,
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light, Temperature and Occupancy Sensor EEP A5-08-02",
  "definitions": {
    "A5_08_02": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
                "if (PIR==0):",
                       "   oic.r.sensor.presence.value = true",
                   "else:",
                       "   oic.r.sensor.presence.value = false"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
                "oic.r.sensor.illuminance.illuminance = lightsensor",
                "oic.r.sensor.illuminance.range = [0.0, 1020.0]"
```

```
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                "oic.r.temperature.temperature = temperature",
                "oic.r.temperature.units = C",
                    "oic.r.temperature.range = [0.0, 51.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }

      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_08_02"}
  ],
  "required": [ "PIR", "temperature", "lightsensor"]
}
```

8.12 Light, Temperature and Occupancy Sensor EEP A5-08-03

8.12.1 Derived model

The derived model: "A5_08_03".

8.12.2 Property definition

Table 29 provides the detailed per Property mapping for "A5_08_03".

Table 29 – The Property mapping for "A5_08_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR==0): oic.r.sensor.presence.value = trueelse: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensoroic.r.sensor.illuminance.range = [0.0, 1530.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-30.0, 50.0]	N/A

Table 30 provides the details of the Properties that are part of "A5_08_03".

Table 30 – The Properties of "A5_08_03".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy
lightsensor	number	yes	Current Illuminance in Lux
temperature	number	yes	Current Temperature

8.12.3 Derived model definition


```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_03.json#"
,
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Light, Temperature and Occupancy Sensor EEP A5-08-03",
  "definitions": {
    "A5_08_03": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
               "if (PIR==0):",
                       "    oic.r.sensor.presence.value = true",
                   "else:",
                       "    oic.r.sensor.presence.value = false"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "lightsensor": {
          "type": "number",
          "description": "Current Illuminance in Lux",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.illuminance",
            "x-to-ocf": [
                "oic.r.sensor.illuminance.illuminance = lightsensor",
                "oic.r.sensor.illuminance.range = [0.0, 1530.0]"

            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                "oic.r.temperature.temperature = temperature",
                "oic.r.temperature.units = C",
                    "oic.r.temperature.range = [-30.0, 50.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }

      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_08_03"}
  ],
  "required": [ "PIR", "temperature", "lightsensor"]
}

```


8.13 Liquid Leakage Detector (Water) EEP F6-05-01

8.13.1 Derived model

The derived model: "F6_05_01".

8.13.2 Property definition

Table 31 provides the detailed per Property mapping for "F6_05_01".

Table 31 – The Property mapping for "F6_05_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
watersensor	oic.r.sensor.water	if (watersensor==17): oic.r.sensor.water.value = trueelse: oic.r.sensor.water.value = false	N/A

Table 32 provides the details of the Properties that are part of "F6_05_01".

Table 32 – The Properties of "F6_05_01".

EnOcean Property name	Type	Required	Description
watersensor	number	yes	Water detector

8.13.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/LiquidLeakageDetectorWater.F6_05_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Liquid Leakage Detector (Water) EEP F6-05-01",
  "definitions": {
    "F6_05_01": {
      "type": "object",
      "properties": {
        "watersensor": {
          "type": "number",
          "description": "Water detector",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.water",
            "x-to-ocf": [
                              "if (watersensor==17):",
                              "   oic.r.sensor.water.value = true",
                              "else:",
                              "   oic.r.sensor.water.value = false"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/F6_05_01"}
  ],
  "required": [ "watersensor"]
}
```

8.14 Occupancy Sensor EEP A5-07-01

8.14.1 Derived model

The derived model: "A5_07_01".

8.14.2 Property definition

Table 33 provides the detailed per Property mapping for "A5_07_01".

Table 33 – The Property mapping for "A5_07_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR<128): oic.r.sensor.presence.value = falseelse: oic.r.sensor.presence.value = true	N/A

Table 34 provides the details of the Properties that are part of "A5_07_01".

Table 34 – The Properties of "A5_07_01".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

8.14.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/OccupancySensor.A5_07_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Occupancy Sensor EEP A5-07-01",
  "definitions": {
    "A5_07_01": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
               "if (PIR<128):",
                       "    oic.r.sensor.presence.value = false",
                   "else:",
                       "    oic.r.sensor.presence.value = true"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_07_01"}
  ],
  "required": [ "PIR"]
}
```

8.15 Occupancy Sensor EEP A5-07-02

8.15.1 Derived model

The derived model: "A5_07_02".

8.15.2 Property definition

Table 35 provides the detailed per Property mapping for "A5_07_02".

Table 35 – The Property mapping for "A5_07_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR==0): oic.r.sensor.presence.value = falseelse: oic.r.sensor.presence.value = true	N/A

Table 36 provides the details of the Properties that are part of "A5_07_02".

Table 36 – The Properties of "A5_07_02".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

8.15.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/OccupancySensor.A5_07_02.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Occupancy Sensor EEP A5-07-02",
  "definitions": {
    "A5_07_02": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
               "if (PIR==0):",
                       "    oic.r.sensor.presence.value = false",
                   "else:",
                       "    oic.r.sensor.presence.value = true"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_07_02"}
  ],
  "required": [ "PIR"]
}
```

8.16 Occupancy Sensor EEP A5-07-03

8.16.1 Derived model

The derived model: "A5_07_03".

8.16.2 Property definition

Table 37 provides the detailed per Property mapping for "A5_07_03".

Table 37 – The Property mapping for "A5_07_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
PIR	oic.r.sensor.presence	if (PIR==0): oic.r.sensor.presence.value = falseelse: oic.r.sensor.presence.value = true	N/A

Table 38 provides the details of the Properties that are part of "A5_07_03".

Table 38 – The Properties of "A5_07_03".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

8.16.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/OccupancySensor.A5_07_03.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Occupancy Sensor EEP A5-07-03",
  "definitions": {
    "A5_07_03": {
      "type": "object",
      "properties": {
        "PIR": {
          "type": "number",
          "description": "Occupancy",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.presence",
            "x-to-ocf": [
                "if (PIR==0):",
                        "   oic.r.sensor.presence.value = false",
                    "else:",
                        "   oic.r.sensor.presence.value = true"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    },
    "type": "object",
    "allOf": [
      {"$ref": "#/definitions/A5_07_03"}
    ],
    "required": [ "PIR"]
}
```

8.17 Push Button, EEP F6-01-01

8.17.1 Derived model

The derived model: "F6_01_01".

8.17.2 Property definition

Table 39 provides the detailed per Property mapping for "F6_01_01".

Table 39 – The Property mapping for "F6_01_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
PushButton	oic.r.button	if (PushButton == 1): oic.r.button.value = !oic.r.button.value	N/A

Table 40 provides the details of the Properties that are part of "F6_01_01".

Table 40 – The Properties of "F6_01_01".

EnOcean Property name	Type	Required	Description
PushButton	number	yes	Simple Button with Released/Pressed Mechanism

8.17.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/PushButton.F6_01_01.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Push Button, EEP F6-01-01",
    "definitions": {
        "F6_01_01": {
            "type": "object",
            "properties": {
                "PushButton": {
                    "type": "number",
                    "description": "Simple Button with Released/Pressed Mechanism",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (PushButton == 1):",
                               "   oic.r.button.value = !oic.r.button.value"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_01_01"
        }
    ],
    "required": [
        "PushButton"
    ]
}
```

8.18 Rocker Switch, 2 Rocker EEP F6-02-01

8.18.1 Derived model

The derived model: "F6_02_01".

8.18.2 Property definition

Table 41 provides the detailed per Property mapping for "F6_02_01".

Table 41 – The Property mapping for "F6_02_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
Rocker1stAction	oic.r.button	if (Rocker1stAction == 0): /Button1ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 1): /Button1ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 2): /Button2ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 3): /Button2ResURI/oic.r.button.value = false	N/A

Table 42 provides the details of the Properties that are part of "F6_02_01".

Table 42 – The Properties of "F6_02_01".

EnOcean Property name	Type	Required	Description
Rocker1stAction	number	yes	1st action of Rocker

8.18.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch2Rocker.F6_02_01.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 2 Rocker EEP F6-02-01",
    "definitions": {
        "F6_02_01": {
            "type": "object",
            "properties": {
                "Rocker1stAction": {
                    "type": "number",
                    "description": "1st action of Rocker",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (Rocker1stAction == 0):",
                               "       /Button1ResURI/oic.r.button.value = true",
                               "else if (Rocker1stAction == 1):",
                               "       /Button1ResURI/oic.r.button.value = false",
                                   "else if (Rocker1stAction == 2):",
                               "       /Button2ResURI/oic.r.button.value = true",
                                   "else if (Rocker1stAction == 3):",
                               "       /Button2ResURI/oic.r.button.value = false"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        }
    },
```

```
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_02_01"
        }
    ],
    "required": [
        "Rocker1stAction"
    ]
}
```

8.19 Rocker Switch, 2 Rocker EEP F6-02-02

8.19.1 Derived model

The derived model: "F6_02_02".

8.19.2 Property definition

Table 43 provides the detailed per Property mapping for "F6_02_02".

Table 43 – The Property mapping for "F6_02_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
Rocker1stAction	oic.r.button	if (Rocker1stAction == 0): /Button1ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 1): /Button1ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 2): /Button2ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 3): /Button2ResURI/oic.r.button.value = false	N/A

Table 44 provides the details of the Properties that are part of "F6_02_02".

Table 44 – The Properties of "F6_02_02".

EnOcean Property name	Type	Required	Description
Rocker1stAction	number	yes	1st action of Rocker

8.19.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch2Rocker.F6_02_02.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 2 Rocker EEP F6-02-02",
    "definitions": {
        "F6_02_02": {
            "type": "object",
            "properties": {
                "Rocker1stAction": {
                    "type": "number",
                    "description": "1st action of Rocker",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (Rocker1stAction == 0):",
                               "       /Button1ResURI/oic.r.button.value = true",
                               "else if (Rocker1stAction == 1):",
                               "       /Button1ResURI/oic.r.button.value = false",
                                   "else if (Rocker1stAction == 2):",
                               "       /Button2ResURI/oic.r.button.value = true",
                                   "else if (Rocker1stAction == 3):",
```

```
                                "       /Button2ResURI/oic.r.button.value = false"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        }
    },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_02_02"
        }
    ],
    "required": [
        "Rocker1stAction"
    ]
}
```

8.20 Rocker Switch, 2 Rocker EEP F6-02-03

8.20.1 Derived model

The derived model: "F6_02_03".

8.20.2 Property definition

Table 45 provides the detailed per Property mapping for "F6_02_03".

Table 45 – The Property mapping for "F6_02_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
RockerAction	oic.r.button	if (RockerAction == 48): /Button1ResURI/oic.r.button.value = trueelse if (RockerAction == 16): /Button1ResURI/oic.r.button.value = falseelse if (RockerAction == 112): /Button2ResURI/oic.r.button.value = trueelse if (RockerAction == 80): /Button2ResURI/oic.r.button.value = false	N/A

Table 46 provides the details of the Properties that are part of "F6_02_03".

Table 46 – The Properties of "F6_02_03".

EnOcean Property name	Type	Required	Description
RockerAction	number	yes	Action Code of Rocker

8.20.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch2Rocker.F6_02_03.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 2 Rocker EEP F6-02-03",
    "definitions": {
        "F6_02_03": {
            "type": "object",
            "properties": {
                "RockerAction": {
                    "type": "number",
```

```
                    "description": "Action Code of Rocker",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (RockerAction == 48):",
                               "       /Button1ResURI/oic.r.button.value = true",
                               "else if (RockerAction == 16):",
                               "       /Button1ResURI/oic.r.button.value = false",
                                      "else if (RockerAction == 112):",
                               "       /Button2ResURI/oic.r.button.value = true",
                                          "else if (RockerAction == 80):",
                               "       /Button2ResURI/oic.r.button.value = false"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        }
    },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_02_03"
        }
    ],
    "required": [
        "RockerAction"
    ]
}
```

8.21 Rocker Switch, 2 Rocker EEP F6-02-04

8.21.1 Derived model

The derived model: "F6_02_04".

8.21.2 Property definition

Table 47 provides the detailed per Property mapping for "F6_02_04".

Table 47 – The Property mapping for "F6_02_04".

EnOcean Property name	OCF Resource	To OCF	From OCF
AI	oic.r.button	if (AI == 1): /Button1ResURI/oic.r.button.value = true	N/A
AO	oic.r.button	if (AO == 1): /Button1ResURI/oic.r.button.value = false	N/A
BI	oic.r.button	if (BI == 1): /Button2ResURI/oic.r.button.value = true	N/A
BO	oic.r.button	if (BO == 1): /Button2ResURI/oic.r.button.value = false	N/A

Table 48 provides the details of the Properties that are part of "F6_02_04".

Table 48 – The Properties of "F6_02_04".

EnOcean Property name	Type	Required	Description
AI	number	yes	Rocker A State I

AO	number	yes	Rocker A State O
BI	number	yes	Rocker B State I
BO	number	yes	Rocker B State O

8.21.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch2Rocker.F6_02_04.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 2 Rocker EEP F6-02-04",
    "definitions": {
        "F6_02_04": {
            "type": "object",
            "properties": {
                "AI": {
                    "type": "number",
                    "description": "Rocker A State I",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (AI == 1):",
                               "   /Button1ResURI/oic.r.button.value = true"

                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                },
                "AO": {
                    "type": "number",
                    "description": "Rocker A State O",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (AO == 1):",
                               "   /Button1ResURI/oic.r.button.value = false"

                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                },
                "BI": {
                    "type": "number",
                    "description": "Rocker B State I",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (BI == 1):",
                               "   /Button2ResURI/oic.r.button.value = true"

                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                },
                "BO": {
                    "type": "number",
                    "description": "Rocker B State O",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (BO == 1):",
                               "   /Button2ResURI/oic.r.button.value = false"

```

```
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        }
    },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_02_04"
        }
    ],
    "required": [
        "AI", "AO", "BI", "BO"
    ]
}
```

8.22 Rocker Switch, 4 Rocker EEP F6-03-01

8.22.1 Derived model

The derived model: "F6_03_01".

8.22.2 Property definition

Table 49 provides the detailed per Property mapping for "F6_03_01".

Table 49 – The Property mapping for "F6_03_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
Rocker1stAction	oic.r.button	if (Rocker1stAction == 0): /Button1ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 1): /Button1ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 2): /Button2ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 3): /Button2ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 4): /Button3ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 5): /Button3ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 6): /Button4ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 7): /Button4ResURI/oic.r.button.value = false	N/A

Table 50 provides the details of the Properties that are part of "F6_03_01".

Table 50 – The Properties of "F6_03_01".

EnOcean Property name	Type	Required	Description
Rocker1stAction	number	yes	1st action of Rocker

8.22.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch4Rocker.F6_03_01.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 4 Rocker EEP F6-03-01",
    "definitions": {
        "F6_03_01": {
            "type": "object",
            "properties": {
                "Rocker1stAction": {
                    "type": "number",
                    "description": "1st action of Rocker",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (Rocker1stAction == 0):",
                               "   /Button1ResURI/oic.r.button.value = true",
                               "else if (Rocker1stAction == 1):",
                               "   /Button1ResURI/oic.r.button.value = false",
                                   "else if (Rocker1stAction == 2):",
                               "   /Button2ResURI/oic.r.button.value = true",
                                   "else if (Rocker1stAction == 3):",
                               "   /Button2ResURI/oic.r.button.value = false",
                               "else if (Rocker1stAction == 4):",
                               "   /Button3ResURI/oic.r.button.value = true",
                                   "else if (Rocker1stAction == 5):",
                               "   /Button3ResURI/oic.r.button.value = false",
                                   "else if (Rocker1stAction == 6):",
                               "   /Button4ResURI/oic.r.button.value = true",
                                   "else if (Rocker1stAction == 7):",
                               "   /Button4ResURI/oic.r.button.value = false"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }

            }
        },
        "type": "object",
        "allOf": [
            {
                "$ref": "#/definitions/F6_03_01"
            }
        ],
        "required": [
            "Rocker1stAction"
        ]
}
```

8.23 Rocker Switch, 4 Rocker EEP F6-03-02

8.23.1 Derived model

The derived model: "F6_03_02".

8.23.2 Property definition

Table 51 provides the detailed per Property mapping for "F6_03_02".

Table 51 – The Property mapping for "F6_03_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
Rocker1stAction	oic.r.button	if (Rocker1stAction == 0): /Button1ResURI/oic.r.button.value = trueelse if (Rocker1stAction ==	N/A

		1): /Button1ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 2): /Button2ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 3): /Button2ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 4): /Button3ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 5): /Button3ResURI/oic.r.button.value = falseelse if (Rocker1stAction == 6): /Button4ResURI/oic.r.button.value = trueelse if (Rocker1stAction == 7): /Button4ResURI/oic.r.button.value = false	

Table 52 provides the details of the Properties that are part of "F6_03_02".

Table 52 – The Properties of "F6_03_02".

EnOcean Property name	Type	Required	Description
Rocker1stAction	number	yes	1st action of Rocker

8.23.3 Derived model definition

```
{
    "id": "http://openinterconnect.org/enoceanmapping/schemas/RockerSwitch4Rocker.F6_03_02.json#",
    "$schema": "http://json-schema.org/draft-04/schema#",
    "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
    "title": "Rocker Switch, 4 Rocker EEP F6-03-02",
    "definitions": {
        "F6_03_02": {
            "type": "object",
            "properties": {
                "Rocker1stAction": {
                    "type": "number",
                    "description": "1st action of Rocker",
                    "x-ocf-conversion": {
                        "x-ocf-alias": "oic.r.button",
                        "x-to-ocf": [
                               "if (Rocker1stAction == 0):",
                               "   /Button1ResURI/oic.r.button.value = true",
                               "else if (Rocker1stAction == 1):",
                               "   /Button1ResURI/oic.r.button.value = false",
                                       "else if (Rocker1stAction == 2):",
                               "   /Button2ResURI/oic.r.button.value = true",
                                       "else if (Rocker1stAction == 3):",
                               "   /Button2ResURI/oic.r.button.value = false",
                               "else if (Rocker1stAction == 4):",
                               "   /Button3ResURI/oic.r.button.value = true",
                                       "else if (Rocker1stAction == 5):",
                               "   /Button3ResURI/oic.r.button.value = false",
                                       "else if (Rocker1stAction == 6):",
                               "   /Button4ResURI/oic.r.button.value = true",
                                       "else if (Rocker1stAction == 7):",
                               "   /Button4ResURI/oic.r.button.value = false"
                        ],
                        "x-from-ocf": [
                            "N/A"
                        ]
                    }
                }
```

```
            }
        }
    },
    "type": "object",
    "allOf": [
        {
            "$ref": "#/definitions/F6_03_02"
        }
    ],
    "required": [
        "Rocker1stAction"
    ]
}
```

8.24 Single Input Contact EEP D5-00-01

8.24.1 Derived model

The derived model: "D5_00_01".

8.24.2 Property definition

Table 53 provides the detailed per Property mapping for "D5_00_01".

Table 53 – The Property mapping for "D5_00_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
contact	oic.r.sensor.contact	if (contact==0): oic.r.sensor.contact.value = trueelse if (contact==1): oic.r.sensor.contact.value = false	N/A

Table 54 provides the details of the Properties that are part of "D5_00_01".

Table 54 – The Properties of "D5_00_01".

EnOcean Property name	Type	Required	Description
contact	number	yes	Single Input Contact

8.24.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/SingleInputContact.D5_00_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Single Input Contact EEP D5-00-01",
  "definitions": {
    "D5_00_01": {
      "type": "object",
      "properties": {
        "contact": {
          "type": "number",
          "description": "Single Input Contact",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.contact",
            "x-to-ocf": [
                "if (contact==0):",
                       "   oic.r.sensor.contact.value = true",
                   "else if (contact==1):",
                       "   oic.r.sensor.contact.value = false"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
```

```
      }
    },
    "type": "object",
    "allOf": [
      {"$ref": "#/definitions/D5_00_01"}
    ],
    "required": [ "contact"]
  }
```

8.25 Smoke Detector EEP F6-05-02

8.25.1 Derived model

The derived model: "F6_05_02".

8.25.2 Property definition

Table 55 provides the detailed per Property mapping for "F6_05_02".

Table 55 – The Property mapping for "F6_05_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
smokestatus	oic.r.sensor.smoke	if (smokestatus==0): oic.r.sensor.smoke.value = falseelse if (smokestatus==16): oic.r.sensor.smoke.value = true	N/A

Table 56 provides the details of the Properties that are part of "F6_05_02".

Table 56 – The Properties of "F6_05_02".

EnOcean Property name	Type	Required	Description
smokestatus	number	yes	Smoke detector

8.25.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/SmokeDetector.F6_05_02.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Smoke Detector EEP F6-05-02",
  "definitions": {
    "F6_05_02": {
      "type": "object",
      "properties": {
        "smokestatus": {
          "type": "number",
          "description": "Smoke detector",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.sensor.smoke",
            "x-to-ocf": [
                "if (smokestatus==0):",
                       "   oic.r.sensor.smoke.value = false",
                   "else if (smokestatus==16):",
                       "   oic.r.sensor.smoke.value = true"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    },
    "type": "object",
```

```
  "allOf": [
    {"$ref": "#/definitions/F6_05_02"}
  ],
  "required": [ "smokestatus"]
}
```

8.26 Temperature and Humidity Sensor EEP A5-04-01

8.26.1 Derived model

The derived model: "A5_04_01".

8.26.2 Property definition

Table 57 provides the detailed per Property mapping for "A5_04_01".

Table 57 – The Property mapping for "A5_04_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [0.0, 40.0]	N/A
relativeHumidity	oic.r.humidity	oic.r.humidity.humidity = relativeHumidity	N/A

Table 58 provides the details of the Properties that are part of "A5_04_01".

Table 58 – The Properties of "A5_04_01".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature
relativeHumidity	number	yes	Humidity

8.26.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/TemperatureHumiditySensor.A5_04_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature and Humidity Sensor EEP A5-04-01",
  "definitions": {
    "A5_04_01": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                "oic.r.temperature.temperature = temperature",
                "oic.r.temperature.units = C",
                    "oic.r.temperature.range = [0.0, 40.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "relativeHumidity": {
              "type": "number",
              "description": "Humidity",
              "x-ocf-conversion": {
                "x-ocf-alias": "oic.r.humidity",
```

```
                "x-to-ocf": [
                    "oic.r.humidity.humidity = relativeHumidity"
                ],
                "x-from-ocf": [
                  "N/A"
                ]
              }
          }
        }
      }
    },
    "type": "object",
    "allOf": [
      {"$ref": "#/definitions/A5_04_01"}
    ],
    "required": [ "temperature", "relativeHumidity"]
}
```

8.27 Temperature and Humidity Sensor EEP A5-04-02

8.27.1 Derived model

The derived model: "A5_04_02".

8.27.2 Property definition

Table 59 provides the detailed per Property mapping for "A5_04_02".

Table 59 – The Property mapping for "A5_04_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-20.0, 60.0]	N/A
relativeHumidity	oic.r.humidity	oic.r.humidity.humidity = relativeHumidity	N/A

Table 60 provides the details of the Properties that are part of "A5_04_02".

Table 60 – The Properties of "A5_04_02".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature
relativeHumidity	number	yes	Humidity

8.27.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/TemperatureHumiditySensor.A5_04_02.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature and Humidity Sensor EEP A5-04-02",
  "definitions": {
    "A5_04_02": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                "oic.r.temperature.temperature = temperature",
                "oic.r.temperature.units = C",
```

```
                    "oic.r.temperature.range = [-20.0, 60.0]"
              ],
              "x-from-ocf": [
                "N/A"
              ]
            }
          },
          "relativeHumidity": {
            "type": "number",
            "description": "Humidity",
            "x-ocf-conversion": {
              "x-ocf-alias": "oic.r.humidity",
              "x-to-ocf": [
                  "oic.r.humidity.humidity = relativeHumidity"
              ],
              "x-from-ocf": [
                "N/A"
              ]
            }
          }
        }
      }
    },
    "type": "object",
    "allOf": [
      {"$ref": "#/definitions/A5_04_02"}
    ],
    "required": [ "temperature", "relativeHumidity"]
}
```

8.28 Temperature and Humidity Sensor EEP A5-04-03

8.28.1 Derived model

The derived model: "A5_04_03".

8.28.2 Property definition

Table 61 provides the detailed per Property mapping for "A5_04_03".

Table 61 – The Property mapping for "A5_04_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-20.0, 60.0]	N/A
relativeHumidity	oic.r.humidity	oic.r.humidity.humidity = relativeHumidity	N/A

Table 62 provides the details of the Properties that are part of "A5_04_03".

Table 62 – The Properties of "A5_04_03".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature
relativeHumidity	number	yes	Humidity

8.28.3 Derived model definition

```
{
  "id":
"http://openinterconnect.org/enoceanmapping/schemas/TemperatureHumiditySensor.A5_04_03.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature and Humidity Sensor EEP A5-04-03",
```

```
  "definitions": {
    "A5_04_03": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                "oic.r.temperature.temperature = temperature",
                "oic.r.temperature.units = C",
                    "oic.r.temperature.range = [-20.0, 60.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        },
        "relativeHumidity": {
          "type": "number",
          "description": "Humidity",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.humidity",
            "x-to-ocf": [
                "oic.r.humidity.humidity = relativeHumidity"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_04_03"}
  ],
  "required": [ "temperature", "relativeHumidity"]
}
```

8.29 Temperature Sensor EEP A5-02-01

8.29.1 Derived model

The derived model: "A5_02_01".

8.29.2 Property definition

Table 63 provides the detailed per Property mapping for "A5_02_01".

Table 63 – The Property mapping for "A5_02_01".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-40.0, 0.0]	N/A

Table 64 provides the details of the Properties that are part of "A5_02_01".

Table 64 – The Properties of "A5_02_01".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.29.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_01.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-01",
  "definitions": {
    "A5_02_01": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-40.0, 0.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_01"}
  ],
  "required": [ "temperature"]
}
```

8.30 Temperature Sensor EEP A5-02-02

8.30.1 Derived model

The derived model: "A5_02_02".

8.30.2 Property definition

Table 65 provides the detailed per Property mapping for "A5_02_02".

Table 65 – The Property mapping for "A5_02_02".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-30.0, 10.0]	N/A

Table 66 provides the details of the Properties that are part of "A5_02_02".

Table 66 – The Properties of "A5_02_02".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.30.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_02.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-02",
  "definitions": {
    "A5_02_02": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-30.0, 10.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_02"}
  ],
  "required": [ "temperature"]
}
```

8.31 Temperature Sensor EEP A5-02-03

8.31.1 Derived model

The derived model: "A5_02_03".

8.31.2 Property definition

Table 67 provides the detailed per Property mapping for "A5_02_03".

Table 67 – The Property mapping for "A5_02_03".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-20.0, 20.0]	N/A

Table 68 provides the details of the Properties that are part of "A5_02_03".

Table 68 – The Properties of "A5_02_03".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.31.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_03.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-03",
  "definitions": {
    "A5_02_03": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-20.0, 20.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_03"}
  ],
  "required": [ "temperature"]
}
```

8.32 Temperature Sensor EEP A5-02-04

8.32.1 Derived model

The derived model: "A5_02_04".

8.32.2 Property definition

Table 69 provides the detailed per Property mapping for "A5_02_04".

Table 69 – The Property mapping for "A5_02_04".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-10.0, 30.0]	N/A

Table 70 provides the details of the Properties that are part of "A5_02_04".

Table 70 – The Properties of "A5_02_04".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.32.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_04.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-04",
  "definitions": {
    "A5_02_04": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-10.0, 30.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_04"}
  ],
  "required": [ "temperature"]
}
```

8.33 Temperature Sensor EEP A5-02-05

8.33.1 Derived model

The derived model: "A5_02_05".

8.33.2 Property definition

Table 71 provides the detailed per Property mapping for "A5_02_05".

Table 71 – The Property mapping for "A5_02_05".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [0.0, 40.0]	N/A

Table 72 provides the details of the Properties that are part of "A5_02_05".

Table 72 – The Properties of "A5_02_05".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.33.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_05.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-05",
  "definitions": {
    "A5_02_05": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [0.0, 40.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_05"}
  ],
  "required": [ "temperature"]
}
```

8.34 Temperature Sensor EEP A5-02-06

8.34.1 Derived model

The derived model: "A5_02_06".

8.34.2 Property definition

Table 73 provides the detailed per Property mapping for "A5_02_06".

Table 73 – The Property mapping for "A5_02_06".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [10.0, 50.0]	N/A

Table 74 provides the details of the Properties that are part of "A5_02_06".

Table 74 – The Properties of "A5_02_06".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.34.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_06.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-06",
  "definitions": {
    "A5_02_06": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [10.0, 50.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_06"}
  ],
  "required": [ "temperature"]
}
```

8.35 Temperature Sensor EEP A5-02-07

8.35.1 Derived model

The derived model: "A5_02_07".

8.35.2 Property definition

Table 75 provides the detailed per Property mapping for "A5_02_07".

Table 75 – The Property mapping for "A5_02_07".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [20.0, 60.0]	N/A

Table 76 provides the details of the Properties that are part of "A5_02_07".

Table 76 – The Properties of "A5_02_07".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.35.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_07.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-07",
  "definitions": {
    "A5_02_07": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [20.0, 60.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_07"}
  ],
  "required": [ "temperature"]
}
```

8.36 Temperature Sensor EEP A5-02-08

8.36.1 Derived model

The derived model: "A5_02_08".

8.36.2 Property definition

Table 77 provides the detailed per Property mapping for "A5_02_08".

Table 77 – The Property mapping for "A5_02_08".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [30.0, 70.0]	N/A

Table 78 provides the details of the Properties that are part of "A5_02_08".

Table 78 – The Properties of "A5_02_08".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.36.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_08.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-08",
  "definitions": {
    "A5_02_08": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [30.0, 70.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_08"}
  ],
  "required": [ "temperature"]
}
```

8.37 Temperature Sensor EEP A5-02-09

8.37.1 Derived model

The derived model: "A5_02_09".

8.37.2 Property definition

Table 79 provides the detailed per Property mapping for "A5_02_09".

Table 79 – The Property mapping for "A5_02_09".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [40.0, 80.0]	N/A

Table 80 provides the details of the Properties that are part of "A5_02_09".

Table 80 – The Properties of "A5_02_09".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.37.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_09.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-09",
  "definitions": {
    "A5_02_09": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [40.0, 80.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_09"}
  ],
  "required": [ "temperature"]
}
```

8.38 Temperature Sensor EEP A5-02-0A

8.38.1 Derived model

The derived model: "A5_02_0A".

8.38.2 Property definition

Table 81 provides the detailed per Property mapping for "A5_02_0A".

Table 81 – The Property mapping for "A5_02_0A".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [50.0, 90.0]	N/A

Table 82 provides the details of the Properties that are part of "A5_02_0A".

Table 82 – The Properties of "A5_02_0A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.38.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_0A.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-0A",
  "definitions": {
    "A5_02_0A": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [50.0, 90.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_0A"}
  ],
  "required": [ "temperature"]
}
```

8.39 Temperature Sensor EEP A5-02-0B

8.39.1 Derived model

The derived model: "A5_02_0B".

8.39.2 Property definition

Table 83 provides the detailed per Property mapping for "A5_02_0B".

Table 83 – The Property mapping for "A5_02_0B".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [60.0, 100.0]	N/A

Table 84 provides the details of the Properties that are part of "A5_02_0B".

Table 84 – The Properties of "A5_02_0B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.39.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_0B.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-0B",
  "definitions": {
    "A5_02_0B": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [60.0, 100.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_0B"}
  ],
  "required": [ "temperature"]
}
```

8.40 Temperature Sensor EEP A5-02-10

8.40.1 Derived model

The derived model: "A5_02_10".

8.40.2 Property definition

Table 85 provides the detailed per Property mapping for "A5_02_10".

Table 85 – The Property mapping for "A5_02_10".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-60.0, 20.0]	N/A

Table 86 provides the details of the Properties that are part of "A5_02_10".

Table 86 – The Properties of "A5_02_10".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.40.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_10.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-10",
  "definitions": {
    "A5_02_10": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-60.0, 20.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_10"}
  ],
  "required": [ "temperature"]
}
```

8.41 Temperature Sensor EEP A5-02-11

8.41.1 Derived model

The derived model: "A5_02_11".

8.41.2 Property definition

Table 87 provides the detailed per Property mapping for "A5_02_11".

Table 87 – The Property mapping for "A5_02_11".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-50.0, 30.0]	N/A

Table 88 provides the details of the Properties that are part of "A5_02_11".

Table 88 – The Properties of "A5_02_11".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.41.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_11.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-11",
  "definitions": {
    "A5_02_11": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-50.0, 30.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_11"}
  ],
  "required": [ "temperature"]
}
```

8.42 Temperature Sensor EEP A5-02-12

8.42.1 Derived model

The derived model: "A5_02_12".

8.42.2 Property definition

Table 89 provides the detailed per Property mapping for "A5_02_12".

Table 89 – The Property mapping for "A5_02_12".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-40.0, 40.0]	N/A

Table 90 provides the details of the Properties that are part of "A5_02_12".

Table 90 – The Properties of "A5_02_12".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.42.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_12.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-12",
  "definitions": {
    "A5_02_12": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-40.0, 40.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_12"}
  ],
  "required": [ "temperature"]
}
```

8.43 Temperature Sensor EEP A5-02-13

8.43.1 Derived model

The derived model: "A5_02_13".

8.43.2 Property definition

Table 91 provides the detailed per Property mapping for "A5_02_13".

Table 91 – The Property mapping for "A5_02_13".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-30.0, 50.0]	N/A

Table 92 provides the details of the Properties that are part of "A5_02_13".

Table 92 – The Properties of "A5_02_13".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.43.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_13.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-13",
  "definitions": {
    "A5_02_13": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-30.0, 50.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_13"}
  ],
  "required": [ "temperature"]
}
```

8.44 Temperature Sensor EEP A5-02-14

8.44.1 Derived model

The derived model: "A5_02_14".

8.44.2 Property definition

Table 93 provides the detailed per Property mapping for "A5_02_14".

Table 93 – The Property mapping for "A5_02_14".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-20.0, 60.0]	N/A

Table 94 provides the details of the Properties that are part of "A5_02_14".

Table 94 – The Properties of "A5_02_14".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.44.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_14.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-14",
  "definitions": {
    "A5_02_14": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-20.0, 60.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_14"}
  ],
  "required": [ "temperature"]
}
```

8.45 Temperature Sensor EEP A5-02-15

8.45.1 Derived model

The derived model: "A5_02_15".

8.45.2 Property definition

Table 95 provides the detailed per Property mapping for "A5_02_15".

Table 95 – The Property mapping for "A5_02_15".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-10.0, 70.0]	N/A

Table 96 provides the details of the Properties that are part of "A5_02_15".

Table 96 – The Properties of "A5_02_15".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.45.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_15.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-15",
  "definitions": {
    "A5_02_15": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-10.0, 70.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_15"}
  ],
  "required": [ "temperature"]
}
```

8.46 Temperature Sensor EEP A5-02-16

8.46.1 Derived model

The derived model: "A5_02_16".

8.46.2 Property definition

Table 97 provides the detailed per Property mapping for "A5_02_16".

Table 97 – The Property mapping for "A5_02_16".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [0.0, 80.0]	N/A

Table 98 provides the details of the Properties that are part of "A5_02_16".

Table 98 – The Properties of "A5_02_16".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.46.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_16.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-16",
  "definitions": {
    "A5_02_16": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
              "oic.r.temperature.temperature = temperature",
              "oic.r.temperature.units = C",
                  "oic.r.temperature.range = [0.0, 80.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_16"}
  ],
  "required": [ "temperature"]
}
```

8.47 Temperature Sensor EEP A5-02-17

8.47.1 Derived model

The derived model: "A5_02_17".

8.47.2 Property definition

Table 99 provides the detailed per Property mapping for "A5_02_17".

Table 99 – The Property mapping for "A5_02_17".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [10.0, 90.0]	N/A

Table 100 provides the details of the Properties that are part of "A5_02_17".

Table 100 – The Properties of "A5_02_17".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.47.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_17.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-17",
  "definitions": {
    "A5_02_17": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [10.0, 90.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_17"}
  ],
  "required": [ "temperature"]
}
```

8.48 Temperature Sensor EEP A5-02-18

8.48.1 Derived model

The derived model: "A5_02_18".

8.48.2 Property definition

Table 101 provides the detailed per Property mapping for "A5_02_18".

Table 101 – The Property mapping for "A5_02_18".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [20.0, 100.0]	N/A

Table 102 provides the details of the Properties that are part of "A5_02_18".

Table 102 – The Properties of "A5_02_18".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.48.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_18.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-18",
  "definitions": {
    "A5_02_18": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [20.0, 100.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_18"}
  ],
  "required": [ "temperature"]
}
```

8.49 Temperature Sensor EEP A5-02-19

8.49.1 Derived model

The derived model: "A5_02_19".

8.49.2 Property definition

Table 103 provides the detailed per Property mapping for "A5_02_19".

Table 103 – The Property mapping for "A5_02_19".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [30.0, 110.0]	N/A

Table 104 provides the details of the Properties that are part of "A5_02_19".

Table 104 – The Properties of "A5_02_19".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.49.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_19.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-19",
  "definitions": {
    "A5_02_19": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [30.0, 110.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_19"}
  ],
  "required": [ "temperature"]
}
```

8.50 Temperature Sensor EEP A5-02-1A

8.50.1 Derived model

The derived model: "A5_02_1A".

8.50.2 Property definition

Table 105 provides the detailed per Property mapping for "A5_02_1A".

Table 105 – The Property mapping for "A5_02_1A".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [40.0, 120.0]	N/A

Table 106 provides the details of the Properties that are part of "A5_02_1A".

Table 106 – The Properties of "A5_02_1A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.50.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_1A.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-1A",
  "definitions": {
    "A5_02_1A": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [40.0, 120.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_1A"}
  ],
  "required": [ "temperature"]
}
```

8.51 Temperature Sensor EEP A5-02-1B

8.51.1 Derived model

The derived model: "A5_02_1B".

8.51.2 Property definition

Table 107 provides the detailed per Property mapping for "A5_02_1B".

Table 107 – The Property mapping for "A5_02_1B".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [50.0, 130.0]	N/A

Table 108 provides the details of the Properties that are part of "A5_02_1B".

Table 108 – The Properties of "A5_02_1B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.51.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_1B.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-1B",
  "definitions": {
    "A5_02_1B": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [50.0, 130.0]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_1B"}
  ],
  "required": [ "temperature"]
}
```

8.52 Temperature Sensor EEP A5-02-20

8.52.1 Derived model

The derived model: "A5_02_20".

8.52.2 Property definition

Table 109 provides the detailed per Property mapping for "A5_02_20".

Table 109 – The Property mapping for "A5_02_20".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-10.0, 41.2]	N/A

Table 110 provides the details of the Properties that are part of "A5_02_20".

Table 110 – The Properties of "A5_02_20".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.52.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_20.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-20",
  "definitions": {
    "A5_02_20": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                              "oic.r.temperature.temperature = temperature",
                              "oic.r.temperature.units = C",
                              "oic.r.temperature.range = [-10.0, 41.2]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_20"}
  ],
  "required": [ "temperature"]
}
```

8.53 Temperature Sensor EEP A5-02-30

8.53.1 Derived model

The derived model: "A5_02_30".

8.53.2 Property definition

Table 111 provides the detailed per Property mapping for "A5_02_30".

Table 111 – The Property mapping for "A5_02_30".

EnOcean Property name	OCF Resource	To OCF	From OCF
temperature	oic.r.temperature	oic.r.temperature.temperature = temperatureoic.r.temperature.units = Coic.r.temperature.range = [-40.0, 62.3]	N/A

Table 112 provides the details of the Properties that are part of "A5_02_30".

Table 112 – The Properties of "A5_02_30".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

8.53.3 Derived model definition

```
{
  "id": "http://openinterconnect.org/enoceanmapping/schemas/TemperatureSensor.A5_02_30.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Temperature Sensor EEP A5-02-30",
  "definitions": {
    "A5_02_30": {
      "type": "object",
      "properties": {
        "temperature": {
          "type": "number",
          "description": "Current Temperature",
          "x-ocf-conversion": {
            "x-ocf-alias": "oic.r.temperature",
            "x-to-ocf": [
                                "oic.r.temperature.temperature = temperature",
                                "oic.r.temperature.units = C",
                                "oic.r.temperature.range = [-40.0, 62.3]"
            ],
            "x-from-ocf": [
              "N/A"
            ]
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    {"$ref": "#/definitions/A5_02_30"}
  ],
  "required": [ "temperature"]
}
```