

OCF Resource to EnOcean Mapping Specification

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CONTENTS

21		
22	1	Scope 1
23	2	Normative references 1
24	3	Terms, definitions, symbols and abbreviated terms 1
25	3.1	Terms and definitions 1
26	3.2	Abbreviated terms 2
27	4	Document conventions and organization 2
28	4.1	Conventions 2
29	4.2	Notation..... 2
30	5	Theory of Operation 3
31	5.1	Interworking Approach..... 3
32	5.2	General 3
33	5.2.1	Value Assignment 3
34	5.2.2	Property Naming 3
35	5.2.3	Range 3
36	5.2.4	Arrays 4
37	5.2.5	Default Mapping 4
38	5.2.6	Conditional Mapping..... 4
39	5.2.7	Method Invocation 4
40	6	EnOcean Translation..... 4
41	6.1	Operational Scenarios 4
42	6.1.1	Use case for EnOcean Bridging..... 5
43	6.2	Requirements specific to EnOcean Bridging Function 5
44	6.2.1	Introduction 5
45	6.2.2	Exposing EnOcean Devices to OCF Clients..... 5
46	6.2.3	Protocol Translation between EnOcean and OCF 11
47	7	Device Type Mapping..... 12
48	7.1	Introduction 12
49	7.2	EnOcean Equipment Profiles to OCF Device Types and OCF Resource Types..... 12
50	7.3	Telegram Parameters 13
51	7.3.1	Push Button 13
52	7.3.2	Rocker 1 st Action 13
53	7.3.3	Key Card..... 14
54	7.3.4	Alert Signals..... 14
55	7.3.5	Open/Closed 14
56	7.3.6	Temperature 14
57	7.3.7	Barometer 14
58	7.3.8	Illumination 14
59	7.3.9	Humidity..... 14
60	7.3.10	PIR/Occupancy 14
61	7.4	Indirect Parameters through EnOcean Equipment Profile..... 14
62	7.4.1	Introduction 14
63	7.4.2	Range 15

64	7.4.3	Unit	15
65	8	Detailed Mapping APIs	15
66	8.1	Introduction	15
67	8.2	Barometric Sensor EEP A5-05-01	15
68	8.2.1	Derived model	15
69	8.2.2	Property definition	15
70	8.2.3	Derived model definition	15
71	8.3	Key Card Switch, EEP F6-04-01	16
72	8.3.1	Derived model	16
73	8.3.2	Property definition	16
74	8.3.3	Derived model definition	16
75	8.4	Key Card Switch, EEP F6-04-02	17
76	8.4.1	Derived model	17
77	8.4.2	Property definition	17
78	8.4.3	Derived model definition	17
79	8.5	Light Sensor EEP A5-06-01	18
80	8.5.1	Derived model	18
81	8.5.2	Property definition	18
82	8.5.3	Derived model definition	18
83	8.6	Light Sensor EEP A5-06-02	19
84	8.6.1	Derived model	19
85	8.6.2	Property definition	19
86	8.6.3	Derived model definition	19
87	8.7	Light Sensor EEP A5-06-03	20
88	8.7.1	Derived model	20
89	8.7.2	Property definition	20
90	8.7.3	Derived model definition	20
91	8.8	Light Sensor EEP A5-06-04	21
92	8.8.1	Derived model	21
93	8.8.2	Property definition	21
94	8.8.3	Derived model definition	21
95	8.9	Light Sensor EEP A5-06-05	22
96	8.9.1	Derived model	22
97	8.9.2	Property definition	22
98	8.9.3	Derived model definition	22
99	8.10	Light, Temperature and Occupancy Sensor EEP A5-08-01	23
100	8.10.1	Derived model	23
101	8.10.2	Property definition	23
102	8.10.3	Derived model definition	23
103	8.11	Light, Temperature and Occupancy Sensor EEP A5-08-02	24
104	8.11.1	Derived model	24
105	8.11.2	Property definition	24
106	8.11.3	Derived model definition	25
107	8.12	Light, Temperature and Occupancy Sensor EEP A5-08-03	26

108	8.12.1	Derived model	26
109	8.12.2	Property definition	26
110	8.12.3	Derived model definition	26
111	8.13	Liquid Leakage Detector (Water) EEP F6-05-01	27
112	8.13.1	Derived model	27
113	8.13.2	Property definition	27
114	8.13.3	Derived model definition	28
115	8.14	Occupancy Sensor EEP A5-07-01	28
116	8.14.1	Derived model	28
117	8.14.2	Property definition	28
118	8.14.3	Derived model definition	29
119	8.15	Occupancy Sensor EEP A5-07-02	29
120	8.15.1	Derived model	29
121	8.15.2	Property definition	29
122	8.15.3	Derived model definition	30
123	8.16	Occupancy Sensor EEP A5-07-03	30
124	8.16.1	Derived model	30
125	8.16.2	Property definition	30
126	8.16.3	Derived model definition	31
127	8.17	Push Button, EEP F6-01-01	31
128	8.17.1	Derived model	31
129	8.17.2	Property definition	31
130	8.17.3	Derived model definition	32
131	8.18	Rocker Switch, 2 Rocker EEP F6-02-01	32
132	8.18.1	Derived model	32
133	8.18.2	Property definition	32
134	8.18.3	Derived model definition	33
135	8.19	Rocker Switch, 2 Rocker EEP F6-02-02	34
136	8.19.1	Derived model	34
137	8.19.2	Property definition	34
138	8.19.3	Derived model definition	34
139	8.20	Rocker Switch, 2 Rocker EEP F6-02-03	35
140	8.20.1	Derived model	35
141	8.20.2	Property definition	35
142	8.20.3	Derived model definition	35
143	8.21	Rocker Switch, 2 Rocker EEP F6-02-04	36
144	8.21.1	Derived model	36
145	8.21.2	Property definition	36
146	8.21.3	Derived model definition	37
147	8.22	Rocker Switch, 4 Rocker EEP F6-03-01	38
148	8.22.1	Derived model	38
149	8.22.2	Property definition	38
150	8.22.3	Derived model definition	39
151	8.23	Rocker Switch, 4 Rocker EEP F6-03-02	39

152	8.23.1	Derived model	39
153	8.23.2	Property definition	40
154	8.23.3	Derived model definition	40
155	8.24	Single Input Contact EEP D5-00-01	41
156	8.24.1	Derived model	41
157	8.24.2	Property definition	41
158	8.24.3	Derived model definition	41
159	8.25	Smoke Detector EEP F6-05-02	42
160	8.25.1	Derived model	42
161	8.25.2	Property definition	42
162	8.25.3	Derived model definition	42
163	8.26	Temperature and Humidity Sensor EEP A5-04-01	43
164	8.26.1	Derived model	43
165	8.26.2	Property definition	43
166	8.26.3	Derived model definition	43
167	8.27	Temperature and Humidity Sensor EEP A5-04-02	44
168	8.27.1	Derived model	44
169	8.27.2	Property definition	44
170	8.27.3	Derived model definition	45
171	8.28	Temperature and Humidity Sensor EEP A5-04-03	45
172	8.28.1	Derived model	45
173	8.28.2	Property definition	45
174	8.28.3	Derived model definition	46
175	8.29	Temperature Sensor EEP A5-02-01	47
176	8.29.1	Derived model	47
177	8.29.2	Property definition	47
178	8.29.3	Derived model definition	47
179	8.30	Temperature Sensor EEP A5-02-02	48
180	8.30.1	Derived model	48
181	8.30.2	Property definition	48
182	8.30.3	Derived model definition	48
183	8.31	Temperature Sensor EEP A5-02-03	48
184	8.31.1	Derived model	48
185	8.31.2	Property definition	49
186	8.31.3	Derived model definition	49
187	8.32	Temperature Sensor EEP A5-02-04	49
188	8.32.1	Derived model	49
189	8.32.2	Property definition	49
190	8.32.3	Derived model definition	50
191	8.33	Temperature Sensor EEP A5-02-05	50
192	8.33.1	Derived model	50
193	8.33.2	Property definition	50
194	8.33.3	Derived model definition	51
195	8.34	Temperature Sensor EEP A5-02-06	51

196	8.34.1	Derived model	51
197	8.34.2	Property definition	51
198	8.34.3	Derived model definition	52
199	8.35	Temperature Sensor EEP A5-02-07	52
200	8.35.1	Derived model	52
201	8.35.2	Property definition	52
202	8.35.3	Derived model definition	53
203	8.36	Temperature Sensor EEP A5-02-08	53
204	8.36.1	Derived model	53
205	8.36.2	Property definition	53
206	8.36.3	Derived model definition	54
207	8.37	Temperature Sensor EEP A5-02-09	54
208	8.37.1	Derived model	54
209	8.37.2	Property definition	54
210	8.37.3	Derived model definition	55
211	8.38	Temperature Sensor EEP A5-02-0A	55
212	8.38.1	Derived model	55
213	8.38.2	Property definition	55
214	8.38.3	Derived model definition	56
215	8.39	Temperature Sensor EEP A5-02-0B	56
216	8.39.1	Derived model	56
217	8.39.2	Property definition	56
218	8.39.3	Derived model definition	57
219	8.40	Temperature Sensor EEP A5-02-10	57
220	8.40.1	Derived model	57
221	8.40.2	Property definition	57
222	8.40.3	Derived model definition	58
223	8.41	Temperature Sensor EEP A5-02-11	58
224	8.41.1	Derived model	58
225	8.41.2	Property definition	58
226	8.41.3	Derived model definition	59
227	8.42	Temperature Sensor EEP A5-02-12	59
228	8.42.1	Derived model	59
229	8.42.2	Property definition	59
230	8.42.3	Derived model definition	60
231	8.43	Temperature Sensor EEP A5-02-13	60
232	8.43.1	Derived model	60
233	8.43.2	Property definition	60
234	8.43.3	Derived model definition	61
235	8.44	Temperature Sensor EEP A5-02-14	61
236	8.44.1	Derived model	61
237	8.44.2	Property definition	61
238	8.44.3	Derived model definition	62
239	8.45	Temperature Sensor EEP A5-02-15	62

240	8.45.1	Derived model	62
241	8.45.2	Property definition	62
242	8.45.3	Derived model definition	63
243	8.46	Temperature Sensor EEP A5-02-16	63
244	8.46.1	Derived model	63
245	8.46.2	Property definition	63
246	8.46.3	Derived model definition	64
247	8.47	Temperature Sensor EEP A5-02-17	64
248	8.47.1	Derived model	64
249	8.47.2	Property definition	64
250	8.47.3	Derived model definition	65
251	8.48	Temperature Sensor EEP A5-02-18	65
252	8.48.1	Derived model	65
253	8.48.2	Property definition	65
254	8.48.3	Derived model definition	66
255	8.49	Temperature Sensor EEP A5-02-19	66
256	8.49.1	Derived model	66
257	8.49.2	Property definition	66
258	8.49.3	Derived model definition	67
259	8.50	Temperature Sensor EEP A5-02-1A	67
260	8.50.1	Derived model	67
261	8.50.2	Property definition	67
262	8.50.3	Derived model definition	68
263	8.51	Temperature Sensor EEP A5-02-1B	68
264	8.51.1	Derived model	68
265	8.51.2	Property definition	68
266	8.51.3	Derived model definition	69
267	8.52	Temperature Sensor EEP A5-02-20	69
268	8.52.1	Derived model	69
269	8.52.2	Property definition	69
270	8.52.3	Derived model definition	70
271	8.53	Temperature Sensor EEP A5-02-30	70
272	8.53.1	Derived model	70
273	8.53.2	Property definition	70
274	8.53.3	Derived model definition	71
275			

276
277
278
279

Figures

Figure 1– OCF EnOcean Bridge Platform and Components 4

Figure 2 – Case for EnOcean Bridging 5

Tables

281	Table 1 - Translation Rule between EnOcean Devices and OCF Data Models	5
282	Table 2 - EnOcean to OCF Mapping Example.....	6
283	Table 3 – "oic.wk.p" Resource Type definition	7
284	Table 4 – "oic.wk.d" Resource Type definition	9
285	Table 5 – "oic.wk.con" Resource Type definition.....	10
286	Table 6 - EnOcean Behaviour translated to OCF	11
287	Table 7 - OCF Actions translated to EnOcean	12
288	Table 8 - EnOcean to OCF Mapping Table	12
289	Table 9 – The Property mapping for "A5_05_01".	15
290	Table 10 – The Properties of "A5_05_01".	15
291	Table 11 – The Property mapping for "F6_04_01".	16
292	Table 12 – The Properties of "F6_04_01".	16
293	Table 13 – The Property mapping for "F6_04_02"	17
294	Table 14 – The Properties of "F6_04_02".	17
295	Table 15 – The Property mapping for "A5_06_01".	18
296	Table 16 – The Properties of "A5_06_01".	18
297	Table 17 – The Property mapping for "A5_06_02".	19
298	Table 18 – The Properties of "A5_06_02".	19
299	Table 19 – The Property mapping for "A5_06_03".	20
300	Table 20 – The Properties of "A5_06_03".	20
301	Table 21 – The Property mapping for "A5_06_04".	21
302	Table 22 – The Properties of "A5_06_04".	21
303	Table 23 – The Property mapping for "A5_06_05".	22
304	Table 24 – The Properties of "A5_06_05".	22
305	Table 25 – The Property mapping for "A5_08_01".	23
306	Table 26 – The Properties of "A5_08_01".	23
307	Table 27 – The Property mapping for "A5_08_02".	24
308	Table 28 – The Properties of "A5_08_02".	25
309	Table 29 – The Property mapping for "A5_08_03".	26
310	Table 30 – The Properties of "A5_08_03".	26
311	Table 31 – The Property mapping for "F6_05_01".	28
312	Table 32 – The Properties of "F6_05_01".	28
313	Table 33 – The Property mapping for "A5_07_01".	29
314	Table 34 – The Properties of "A5_07_01".	29
315	Table 35 – The Property mapping for "A5_07_02".	30
316	Table 36 – The Properties of "A5_07_02".	30
317	Table 37 – The Property mapping for "A5_07_03".	31
318	Table 38 – The Properties of "A5_07_03".	31

319	Table 39 – The Property mapping for "F6_01_01".....	32
320	Table 40 – The Properties of "F6_01_01".	32
321	Table 41 – The Property mapping for "F6_02_01".....	33
322	Table 42 – The Properties of "F6_02_01".	33
323	Table 43 – The Property mapping for "F6_02_02".....	34
324	Table 44 – The Properties of "F6_02_02".	34
325	Table 45 – The Property mapping for "F6_02_03".....	35
326	Table 46 – The Properties of "F6_02_03".	35
327	Table 47 – The Property mapping for "F6_02_04".....	36
328	Table 48 – The Properties of "F6_02_04".	37
329	Table 49 – The Property mapping for "F6_03_01".....	38
330	Table 50 – The Properties of "F6_03_01".	39
331	Table 51 – The Property mapping for "F6_03_02".....	40
332	Table 52 – The Properties of "F6_03_02".	40
333	Table 53 – The Property mapping for "D5_00_01".	41
334	Table 54 – The Properties of "D5_00_01".	41
335	Table 55 – The Property mapping for "F6_05_02".....	42
336	Table 56 – The Properties of "F6_05_02".	42
337	Table 57 – The Property mapping for "A5_04_01".	43
338	Table 58 – The Properties of "A5_04_01".	43
339	Table 59 – The Property mapping for "A5_04_02".	44
340	Table 60 – The Properties of "A5_04_02".	45
341	Table 61 – The Property mapping for "A5_04_03".	46
342	Table 62 – The Properties of "A5_04_03".	46
343	Table 63 – The Property mapping for "A5_02_01".	47
344	Table 64 – The Properties of "A5_02_01".	47
345	Table 65 – The Property mapping for "A5_02_02".	48
346	Table 66 – The Properties of "A5_02_02".	48
347	Table 67 – The Property mapping for "A5_02_03".	49
348	Table 68 – The Properties of "A5_02_03".	49
349	Table 69 – The Property mapping for "A5_02_04".	50
350	Table 70 – The Properties of "A5_02_04".	50
351	Table 71 – The Property mapping for "A5_02_05".	51
352	Table 72 – The Properties of "A5_02_05".	51
353	Table 73 – The Property mapping for "A5_02_06".	52
354	Table 74 – The Properties of "A5_02_06".	52
355	Table 75 – The Property mapping for "A5_02_07".	53
356	Table 76 – The Properties of "A5_02_07".	53
357	Table 77 – The Property mapping for "A5_02_08".	54

358	Table 78 – The Properties of "A5_02_08".	54
359	Table 79 – The Property mapping for "A5_02_09".	55
360	Table 80 – The Properties of "A5_02_09".	55
361	Table 81 – The Property mapping for "A5_02_0A".	56
362	Table 82 – The Properties of "A5_02_0A".	56
363	Table 83 – The Property mapping for "A5_02_0B".	57
364	Table 84 – The Properties of "A5_02_0B".	57
365	Table 85 – The Property mapping for "A5_02_10".	58
366	Table 86 – The Properties of "A5_02_10".	58
367	Table 87 – The Property mapping for "A5_02_11".	59
368	Table 88 – The Properties of "A5_02_11".	59
369	Table 89 – The Property mapping for "A5_02_12".	60
370	Table 90 – The Properties of "A5_02_12".	60
371	Table 91 – The Property mapping for "A5_02_13".	61
372	Table 92 – The Properties of "A5_02_13".	61
373	Table 93 – The Property mapping for "A5_02_14".	62
374	Table 94 – The Properties of "A5_02_14".	62
375	Table 95 – The Property mapping for "A5_02_15".	63
376	Table 96 – The Properties of "A5_02_15".	63
377	Table 97 – The Property mapping for "A5_02_16".	64
378	Table 98 – The Properties of "A5_02_16".	64
379	Table 99 – The Property mapping for "A5_02_17".	65
380	Table 100 – The Properties of "A5_02_17".	65
381	Table 101 – The Property mapping for "A5_02_18".	66
382	Table 102 – The Properties of "A5_02_18".	66
383	Table 103 – The Property mapping for "A5_02_19".	67
384	Table 104 – The Properties of "A5_02_19".	67
385	Table 105 – The Property mapping for "A5_02_1A".	68
386	Table 106 – The Properties of "A5_02_1A".	68
387	Table 107 – The Property mapping for "A5_02_1B".	69
388	Table 108 – The Properties of "A5_02_1B".	69
389	Table 109 – The Property mapping for "A5_02_20".	70
390	Table 110 – The Properties of "A5_02_20".	70
391	Table 111 – The Property mapping for "A5_02_30".	71
392	Table 112 – The Properties of "A5_02_30".	71
393		

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

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.

478 Allowed (or allowed).

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

482 Conditionally allowed (CA)

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

485 Conditionally required (CR)

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

489 DEPRECATED

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

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

497 Words that are emphasized are printed in *italic*.

498 **5 Theory of Operation**

499 **5.1 Interworking Approach**

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

503 **5.2 General**

504 All statements are terminated with a carriage return.

505 **5.2.1 Value Assignment**

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

508 **5.2.2 Property Naming**

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

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

514 **5.2.3 Range**

515 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 of 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.

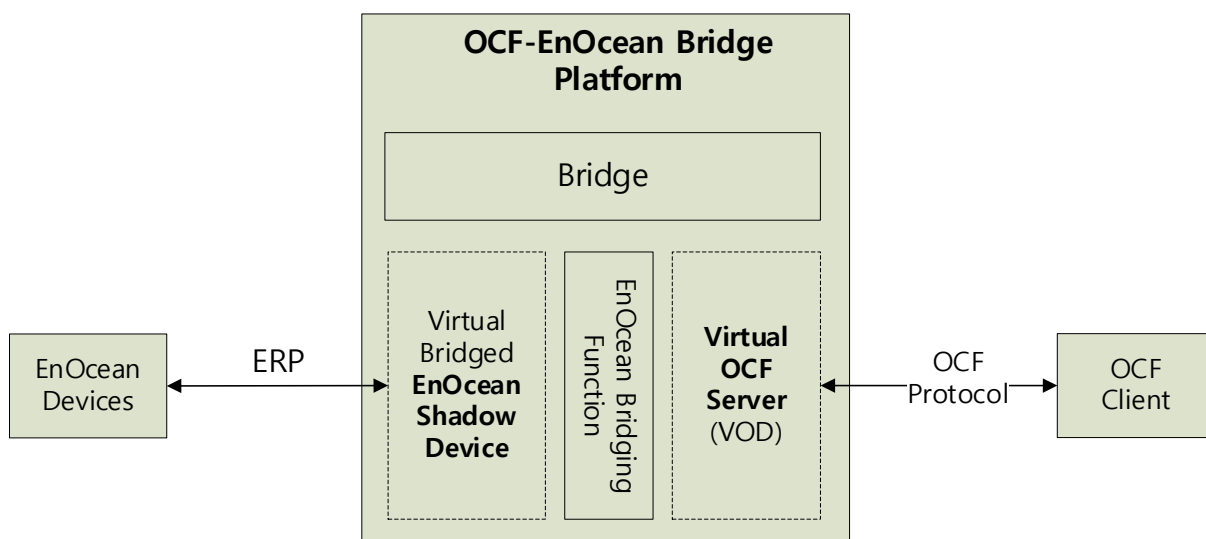


Figure 1– OCF EnOcean Bridge Platform and Components

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.

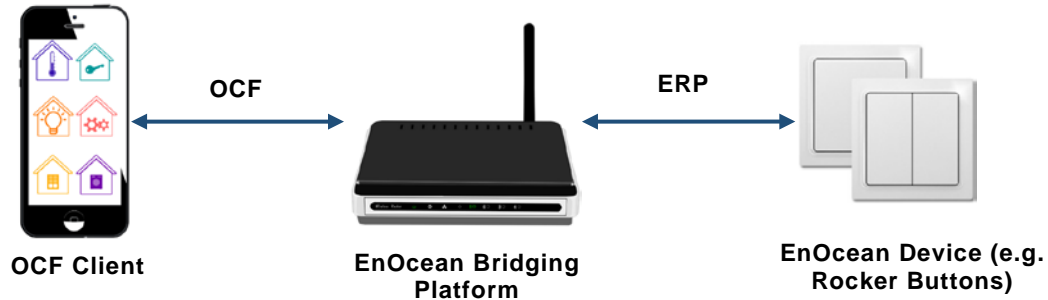


Figure 2 – Case for EnOcean Bridging

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

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

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

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

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

591 **6.2.2.2 Translation for well-defined EEPs**

592 If an EnOcean Device uses an EEP which is well-defined in clause 8 the EnOcean Bridging
 593 Function shall follow it to translate the Device and it's Telegram Parameters to an OCF Device,
 594 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 1 st Action AI Rocker 1 st Action AO Rocker 1 st Action BI Rocker 1 st Action BO	oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 4 Rocker (F6-03-XX)	Rocker 1 st Action AI Rocker 1 st Action AO Rocker 1 st Action BI Rocker 1 st Action BO Rocker 1 st Action CI Rocker 1 st Action CO Rocker 1 st Action DI Rocker 1 st Action DO	oic.r.button oic.r.button oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Position Switch	Key Card activated	oic.r.keycardswitch	oic.d.sensor	Generic Sensor

(F6-04-01)	Key Card taken out			
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

595

6.2.2.3 Exposing an EnOcean Device as a Virtual OCF Device

596

597

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

To 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 (UUID); 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

To Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
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
Support link	mnsi	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

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 vertical (i.e. sh for Smart Home)	Y	(none)	Bridging Function should return its own value.	N
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

To OCF Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
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

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 used for any monetary transactions	N	(none)	(none)	N
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	N	(none)	(none)	N

To Property title	OCF Property name	OCF Description	OCF Mandatory	From EnOcean Device or EEP Spec	EnOcean Description	EnOcean Mandatory
		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.				
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)

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

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

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

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

638 7 Device Type Mapping

639 7.1 Introduction

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

643 7.2 EnOcean Equipment Profiles to OCF Device Types and OCF Resource Types

644 All supported EEPs are represented as "oic.d.sensor" Devices. Actuators are currently not
 645 supported.

646 **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 (F6-02-XX)	Rocker 1 st Action AI Rocker 1 st Action AO Rocker 1 st Action BI Rocker 1 st Action BO	oic.r.button oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 4 (F6-03-XX)	Rocker 1 st Action AI Rocker 1 st Action AO Rocker 1 st Action BI Rocker 1 st Action BO Rocker 1 st Action CI	oic.r.button oic.r.button oic.r.button oic.r.button	oic.d.sensor	Generic Sensor

	Rocker 1 st Action CO Rocker 1 st Action DI Rocker 1 st Action DO			
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 = barometer oic.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": [
```

```

735         "oic.r.sensor.atmosphericpressure.atmosphericPressure = barometer",
736         "oic.r.sensor.atmosphericpressure.range = [500.0, 1150.0]"
737     ],
738     "x-from-ocf": [
739         "N/A"
740     ]
741 }
742 }
743 }
744 }
745 },
746 "type": "object",
747 "allOf": [
748     {"$ref": "#/definitions/A5_05_01"}
749 ],
750 "required": [ "barometer" ]
751 }
752

```

753 8.3 Key Card Switch, EEP F6-04-01

754 8.3.1 Derived model

755 The derived model: "F6_04_01".

756 8.3.2 Property definition

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

758 **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

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

760 **Table 12 – The Properties of "F6_04_01".**

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

761 8.3.3 Derived model definition

```

762 {
763     "id": "http://openinterconnect.org/enOceanmapping/schemas/KeyCardSwitch.F6_04_01.json#",
764     "$schema": "http://json-schema.org/draft-04/schema#",
765     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
766     "title": "Key Card Switch, EEP F6-04-01",
767     "definitions": {
768         "F6_04_01": {
769             "type": "object",
770             "properties": {
771                 "KeyCard": {
772                     "type": "number",
773                     "description": "Valid Key Card inserted or Taken out",
774                     "x-ocf-conversion": {
775                         "x-ocf-alias": "oic.r.keycardswitch",
776                         "x-to-ocf": [
777                             "if (KeyCard == 112):",
778                             "    oic.r.keycardswitch.stateofcard = 'validCardInserted'",

```

```

779                                     "else:",
780                                     "    oic.r.keycardswitch.stateofcard =
781 'validCardNotInserted'"
782                                     ],
783                                     "x-from-ocf": [
784                                         "N/A"
785                                     ]
786                                 }
787                             }
788                         }
789                     }
790                 },
791             },
792             "type": "object",
793             "allOf": [
794                 {
795                     "$ref": "#/definitions/F6_04_01"
796                 }
797             ],
798             "required": [
799                 "KeyCard"
800             ]
801         }

```

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

```

811 {
812     "id": "http://openinterconnect.org/enOceanmapping/schemas/KeyCardSwitch.F6_04_02.json#",
813     "$schema": "http://json-schema.org/draft-04/schema#",
814     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
815     "title": "Key Card Switch, EEP F6-04-02",
816     "definitions": {
817         "F6_04_02": {
818             "type": "object",
819             "properties": {
820                 "StateOfCard": {
821                     "type": "number",
822                     "description": "Valid Key Card inserted or Taken out",

```

```

823         "x-ocf-conversion": {
824             "x-ocf-alias": "oic.r.keycardswitch",
825             "x-to-ocf": [
826                 "if (StateOfCard == 1):",
827                 "    oic.r.keycardswitch.stateofcard = 'validCardInserted'",
828                 "else:",
829                 "    oic.r.keycardswitch.stateofcard =
830 'validCardNotInserted'"
831             ],
832             "x-from-ocf": [
833                 "N/A"
834             ]
835         }
836     }
837 }
838 }
839 },
840 },
841 "type": "object",
842 "allof": [
843     {
844         "$ref": "#/definitions/F6_04_02"
845     }
846 ],
847 "required": [
848     "StateOfCard"
849 ]
850 }

```

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 = lightsensor oic.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

```

860 {
861     "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_01.json#",
862     "$schema": "http://json-schema.org/draft-04/schema#",
863     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
864     "title": "Light Sensor EEP A5-06-01",
865     "definitions": {
866         "A5_06_01": {
867             "type": "object",
868             "properties": {
869                 "lightsensor": {
870                     "type": "number",

```

```

871         "description": "Current Illuminance in Lux",
872         "x-ocf-conversion": {
873             "x-ocf-alias": "oic.r.sensor.illuminance",
874             "x-to-ocf": [
875                 "oic.r.sensor.illuminance.illuminance = lightsensor",
876                 "oic.r.sensor.illuminance.range = [300.0, 60000.0]"
877             ],
878             "x-from-ocf": [
879                 "N/A"
880             ]
881         }
882     }
883 }
884 }
885 },
886 "type": "object",
887 "allOf": [
888     {"$ref": "#/definitions/A5_06_01"}
889 ],
890 "required": [ "lightsensor"]
891 }
892

```

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 = lightsensor oic.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

```

902 {
903     "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_02.json#",
904     "$schema": "http://json-schema.org/draft-04/schema#",
905     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
906     "title": "Light Sensor EEP A5-06-02",
907     "definitions": {
908         "A5_06_02": {
909             "type": "object",
910             "properties": {
911                 "lightsensor": {
912                     "type": "number",
913                     "description": "Current Illuminance in Lux",
914                     "x-ocf-conversion": {
915                         "x-ocf-alias": "oic.r.sensor.illuminance",
916                         "x-to-ocf": [
917                             "oic.r.sensor.illuminance.illuminance = lightsensor",
918                             "oic.r.sensor.illuminance.range = [0.0, 1020.0]"

```

```

919         ],
920         "x-from-ocf": [
921             "N/A"
922         ]
923     }
924 }
925 }
926 }
927 },
928 "type": "object",
929 "allOf": [
930     { "$ref": "#/definitions/A5_06_02" }
931 ],
932 "required": [ "lightsensor" ]
933 }
934

```

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 = lightsensor oic.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

```

944 {
945     "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_03.json#",
946     "$schema": "http://json-schema.org/draft-04/schema#",
947     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
948     "title": "Light Sensor EEP A5-06-03",
949     "definitions": {
950         "A5_06_03": {
951             "type": "object",
952             "properties": {
953                 "lightsensor": {
954                     "type": "number",
955                     "description": "Current Illuminance in Lux",
956                     "x-ocf-conversion": {
957                         "x-ocf-alias": "oic.r.sensor.illuminance",
958                         "x-to-ocf": [
959                             "oic.r.sensor.illuminance.illuminance = lightsensor",
960                             "oic.r.sensor.illuminance.range = [0.0, 1000.0]"
961                         ],
962                     },
963                     "x-from-ocf": [
964                         "N/A"
965                     ]
966                 }
967             }
968         }
969     }
970 }

```



```

967     }
968   }
969 }
970 },
971 "type": "object",
972 "allOf": [
973   {"$ref": "#/definitions/A5_06_03"}
974 ],
975 "required": [ "lightsensor"]
976 }
977

```

978 8.8 Light Sensor EEP A5-06-04

979 8.8.1 Derived model

980 The derived model: "A5_06_04".

981 8.8.2 Property definition

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

983 **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 = lightsensor oic.r.sensor.illuminance.range = [0.0, 65535.0]	N/A

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

985 **Table 22 – The Properties of "A5_06_04".**

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

986 8.8.3 Derived model definition

```

987 {
988   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_04.json#",
989   "$schema": "http://json-schema.org/draft-04/schema#",
990   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
991   "title": "Light Sensor EEP A5-06-04",
992   "definitions": {
993     "A5_06_04": {
994       "type": "object",
995       "properties": {
996         "lightsensor": {
997           "type": "number",
998           "description": "Current Illuminance in Lux",
999           "x-ocf-conversion": {
1000             "x-ocf-alias": "oic.r.sensor.illuminance",
1001             "x-to-ocf": [
1002               "oic.r.sensor.illuminance.illuminance = lightsensor",
1003               "oic.r.sensor.illuminance.range = [0.0, 65535.0]"
1004             ],
1005             "x-from-ocf": [
1006               "N/A"
1007             ]
1008           }
1009         }
1010       }
1011     }
1012   }
1013 },
1014

```

```

1015     "type": "object",
1016     "allOf": [
1017       { "$ref": "#/definitions/A5_06_04" }
1018     ],
1019     "required": [ "lightsensor" ]
1020   }
1021

```

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 = lightsensor oic.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

```

1031 {
1032   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_05.json#",
1033   "$schema": "http://json-schema.org/draft-04/schema#",
1034   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1035   "title": "Light Sensor EEP A5-06-05",
1036   "definitions": {
1037     "A5_06_05": {
1038       "type": "object",
1039       "properties": {
1040         "lightsensor": {
1041           "type": "number",
1042           "description": "Current Illuminance in Lux",
1043           "x-ocf-conversion": {
1044             "x-ocf-alias": "oic.r.sensor.illuminance",
1045             "x-to-ocf": [
1046               "oic.r.sensor.illuminance.illuminance = lightsensor",
1047               "oic.r.sensor.illuminance.range = [0.0, 10200.0]"
1048             ]
1049           },
1050           "x-from-ocf": [
1051             "N/A"
1052           ]
1053         }
1054       }
1055     }
1056   },
1057   "type": "object",
1058   "allOf": [
1059     { "$ref": "#/definitions/A5_06_05" }
1060   ],
1061   "required": [ "lightsensor" ]
1062

```

1063 }
1064

1065 8.10 Light, Temperature and Occupancy Sensor EEP A5-08-01

1066 8.10.1 Derived model

1067 The derived model: "A5_08_01".

1068 8.10.2 Property definition

1069 Table 25 provides the detailed per Property mapping for "A5_08_01".

1070 **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 = true else: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensor oic.r.sensor.illuminance.range = [0.0, 510.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperature oic.r.temperature.units = C oic.r.temperature.range = [0.0, 51.0]	N/A

1071 Table 26 provides the details of the Properties that are part of "A5_08_01".

1072 **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

1073 8.10.3 Derived model definition

```

1074 {
1075   "id":
1076   "http://openinterconnect.org/enOceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_01.json#",
1077   ,
1078   "$schema": "http://json-schema.org/draft-04/schema#",
1079   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1080   "title": "Light, Temperature and Occupancy Sensor EEP A5-08-01",
1081   "definitions": {
1082     "A5_08_01": {
1083       "type": "object",
1084       "properties": {
1085         "PIR": {
1086           "type": "number",
1087           "description": "Occupancy",
1088           "x-ocf-conversion": {
1089             "x-ocf-alias": "oic.r.sensor.presence",
1090             "x-to-ocf": [
1091               "if (PIR==0):",
1092               "    oic.r.sensor.presence.value = true",
1093               "else:",
1094               "    oic.r.sensor.presence.value = false"
1095             ],
1096             "x-from-ocf": [
1097               "N/A"

```

```

1098     ]
1099   }
1100 },
1101 "lightsensor": {
1102   "type": "number",
1103   "description": "Current Illuminance in Lux",
1104   "x-ocf-conversion": {
1105     "x-ocf-alias": "oic.r.sensor.illuminance",
1106     "x-to-ocf": [
1107       "oic.r.sensor.illuminance.illuminance = lightsensor",
1108       "oic.r.sensor.illuminance.range = [0.0, 510.0]"
1109     ],
1110     "x-from-ocf": [
1111       "N/A"
1112     ]
1113   }
1114 },
1115 "temperature": {
1116   "type": "number",
1117   "description": "Current Temperature",
1118   "x-ocf-conversion": {
1119     "x-ocf-alias": "oic.r.temperature",
1120     "x-to-ocf": [
1121       "oic.r.temperature.temperature = temperature",
1122       "oic.r.temperature.units = C",
1123       "oic.r.temperature.range = [0.0, 51.0]"
1124     ],
1125     "x-from-ocf": [
1126       "N/A"
1127     ]
1128   }
1129 }
1130 }
1131 }
1132 }
1133 },
1134 "type": "object",
1135 "allOf": [
1136   {"$ref": "#/definitions/A5_08_01"}
1137 ],
1138 "required": [ "PIR", "temperature", "lightsensor" ]
1139 }
1140

```

1141 8.11 Light, Temperature and Occupancy Sensor EEP A5-08-02

1142 8.11.1 Derived model

1143 The derived model: "A5_08_02".

1144 8.11.2 Property definition

1145 Table 27 provides the detailed per Property mapping for "A5_08_02".

1146 **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 = true else: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensor oic.r.sensor.illuminance.range = [0.0, 1020.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperature	N/A

		oic.r.temperature.units = C oic.r.temperature.range = [0.0, 51.0]	
--	--	--	--

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"
            ]
          }
        }
      }
    }
  }
}
```

```

1204     }
1205   }
1206 }
1207
1208   }
1209 }
1210 },
1211 "type": "object",
1212 "allOf": [
1213   {"$ref": "#/definitions/A5_08_02"}
1214 ],
1215 "required": [ "PIR", "temperature", "lightsensor"]
1216 }
1217

```

1218 8.12 Light, Temperature and Occupancy Sensor EEP A5-08-03

1219 8.12.1 Derived model

1220 The derived model: "A5_08_03".

1221 8.12.2 Property definition

1222 Table 29 provides the detailed per Property mapping for "A5_08_03".

1223 **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 = true else: oic.r.sensor.presence.value = false	N/A
lightsensor	oic.r.sensor.illuminance	oic.r.sensor.illuminance.illuminance = lightsensor oic.r.sensor.illuminance.range = [0.0, 1530.0]	N/A
temperature	oic.r.temperature	oic.r.temperature.temperature = temperature oic.r.temperature.units = C oic.r.temperature.range = [-30.0, 50.0]	N/A

1224 Table 30 provides the details of the Properties that are part of "A5_08_03".

1225 **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

1226 8.12.3 Derived model definition

```

1227 {
1228   "id":
1229   "http://openinterconnect.org/enOceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_03.json#"
1230 ,
1231   "$schema": "http://json-schema.org/draft-04/schema#",
1232   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1233   "title": "Light, Temperature and Occupancy Sensor EEP A5-08-03",
1234   "definitions": {
1235     "A5_08_03": {
1236       "type": "object",
1237       "properties": {
1238         "PIR": {

```

```

1239     "type": "number",
1240     "description": "Occupancy",
1241     "x-ocf-conversion": {
1242       "x-ocf-alias": "oic.r.sensor.presence",
1243       "x-to-ocf": [
1244         "if (PIR==0):",
1245           "    oic.r.sensor.presence.value = true",
1246         "else:",
1247           "    oic.r.sensor.presence.value = false"
1248       ],
1249       "x-from-ocf": [
1250         "N/A"
1251       ]
1252     },
1253   },
1254   "lightsensor": {
1255     "type": "number",
1256     "description": "Current Illuminance in Lux",
1257     "x-ocf-conversion": {
1258       "x-ocf-alias": "oic.r.sensor.illuminance",
1259       "x-to-ocf": [
1260         "oic.r.sensor.illuminance.illuminance = lightsensor",
1261         "oic.r.sensor.illuminance.range = [0.0, 1530.0]"
1262       ],
1263     },
1264     "x-from-ocf": [
1265       "N/A"
1266     ]
1267   },
1268 },
1269 "temperature": {
1270   "type": "number",
1271   "description": "Current Temperature",
1272   "x-ocf-conversion": {
1273     "x-ocf-alias": "oic.r.temperature",
1274     "x-to-ocf": [
1275       "oic.r.temperature.temperature = temperature",
1276       "oic.r.temperature.units = C",
1277       "oic.r.temperature.range = [-30.0, 50.0]"
1278     ],
1279     "x-from-ocf": [
1280       "N/A"
1281     ]
1282   }
1283 },
1284 },
1285 },
1286 },
1287 },
1288 "type": "object",
1289 "allOf": [
1290   {"$ref": "#/definitions/A5_08_03"}
1291 ],
1292 "required": [ "PIR", "temperature", "lightsensor" ]
1293 }
1294

```

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".

1300

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 = true else: oic.r.sensor.water.value = false	N/A

1301

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

1302

Table 32 – The Properties of "F6_05_01".

EnOcean Property name	Type	Required	Description
watersensor	number	yes	Water detector

1303

8.13.3 Derived model definition

1304

```

1305 {
1306   "id":
1307   "http://openinterconnect.org/enOceanmapping/schemas/LiquidLeakageDetectorWater.F6_05_01.json#",
1308   "$schema": "http://json-schema.org/draft-04/schema#",
1309   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1310   "title": "Liquid Leakage Detector (Water) EEP F6-05-01",
1311   "definitions": {
1312     "F6_05_01": {
1313       "type": "object",
1314       "properties": {
1315         "watersensor": {
1316           "type": "number",
1317           "description": "Water detector",
1318           "x-ocf-conversion": {
1319             "x-ocf-alias": "oic.r.sensor.water",
1320             "x-to-ocf": [
1321               "if (watersensor==17):",
1322               "    oic.r.sensor.water.value = true",
1323               "else:",
1324               "    oic.r.sensor.water.value = false"
1325             ],
1326             "x-from-ocf": [
1327               "N/A"
1328             ]
1329           }
1330         }
1331       }
1332     },
1333     "type": "object",
1334     "allOf": [
1335       { "$ref": "#/definitions/F6_05_01" }
1336     ],
1337     "required": [ "watersensor" ]
1338   }
1339 }
```

1340

8.14 Occupancy Sensor EEP A5-07-01

1341

8.14.1 Derived model

1342

The derived model: "A5_07_01".

1343

8.14.2 Property definition

1344

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

1345

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 = false else: oic.r.sensor.presence.value = true	N/A

1346

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

1347

Table 34 – The Properties of "A5_07_01".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1348

8.14.3 Derived model definition

1349

```

1350 {
1351   "id": "http://openinterconnect.org/enOceanmapping/schemas/OccupancySensor.A5_07_01.json#",
1352   "$schema": "http://json-schema.org/draft-04/schema#",
1353   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1354   "title": "Occupancy Sensor EEP A5-07-01",
1355   "definitions": {
1356     "A5_07_01": {
1357       "type": "object",
1358       "properties": {
1359         "PIR": {
1360           "type": "number",
1361           "description": "Occupancy",
1362           "x-ocf-conversion": {
1363             "x-ocf-alias": "oic.r.sensor.presence",
1364             "x-to-ocf": [
1365               "if (PIR<128):",
1366                 "    oic.r.sensor.presence.value = false",
1367             "else:",
1368                 "    oic.r.sensor.presence.value = true"
1369             ],
1370             "x-from-ocf": [
1371               "N/A"
1372             ]
1373           }
1374         }
1375       }
1376     },
1377     "type": "object",
1378     "allOf": [
1379       {"$ref": "#/definitions/A5_07_01"}
1380     ],
1381     "required": [ "PIR" ]
1382   }
1383 }
```

1384

8.15 Occupancy Sensor EEP A5-07-02

1385

8.15.1 Derived model

1386

The derived model: "A5_07_02".

1387

8.15.2 Property definition

1388

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

1389

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 = false else: oic.r.sensor.presence.value = true	N/A

1390

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

1391

Table 36 – The Properties of "A5_07_02".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1392

8.15.3 Derived model definition

1393

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```

{
  "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" ]
}

```

1428

8.16 Occupancy Sensor EEP A5-07-03

1429

8.16.1 Derived model

1430

The derived model: "A5_07_03".

1431

8.16.2 Property definition

1432

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

1433

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 = false else: oic.r.sensor.presence.value = true	N/A

1434

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

1435

Table 38 – The Properties of "A5_07_03".

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1436

8.16.3 Derived model definition

1437

```

1438 {
1439   "id": "http://openinterconnect.org/enOceanmapping/schemas/OccupancySensor.A5_07_03.json#",
1440   "$schema": "http://json-schema.org/draft-04/schema#",
1441   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1442   "title": "Occupancy Sensor EEP A5-07-03",
1443   "definitions": {
1444     "A5_07_03": {
1445       "type": "object",
1446       "properties": {
1447         "PIR": {
1448           "type": "number",
1449           "description": "Occupancy",
1450           "x-ocf-conversion": {
1451             "x-ocf-alias": "oic.r.sensor.presence",
1452             "x-to-ocf": [
1453               "if (PIR==0):",
1454                 "    oic.r.sensor.presence.value = false",
1455               "else:",
1456                 "    oic.r.sensor.presence.value = true"
1457             ],
1458             "x-from-ocf": [
1459               "N/A"
1460             ]
1461           }
1462         }
1463       }
1464     },
1465     "type": "object",
1466     "allOf": [
1467       { "$ref": "#/definitions/A5_07_03" }
1468     ],
1469     "required": [ "PIR" ]
1470   }
1471 }
```

1472

8.17 Push Button, EEP F6-01-01

1473

8.17.1 Derived model

1474

The derived model: "F6_01_01".

1475

8.17.2 Property definition

1476

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

1477

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

1478

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

1479

Table 40 – The Properties of "F6_01_01".

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

1480

8.17.3 Derived model definition

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```

{
  "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"
  ]
}

```

1518

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

1519

8.18.1 Derived model

1520

The derived model: "F6_02_01".

1521

8.18.2 Property definition

1522

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

1523

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 = 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	N/A

1524

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

1525

Table 42 – The Properties of "F6_02_01".

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

1526

8.18.3 Derived model definition

1527

```

1528 {
1529   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_01.json#",
1530   "$schema": "http://json-schema.org/draft-04/schema#",
1531   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1532   "title": "Rocker Switch, 2 Rocker EEP F6-02-01",
1533   "definitions": {
1534     "F6_02_01": {
1535       "type": "object",
1536       "properties": {
1537         "Rocker1stAction": {
1538           "type": "number",
1539           "description": "1st action of Rocker",
1540           "x-ocf-conversion": {
1541             "x-ocf-alias": "oic.r.button",
1542             "x-to-ocf": [
1543               "if (Rocker1stAction == 0):",
1544               "  /Button1ResURI/oic.r.button.value = true",
1545               "else if (Rocker1stAction == 1):",
1546               "  /Button1ResURI/oic.r.button.value = false",
1547               "  else if (Rocker1stAction == 2):",
1548               "  /Button2ResURI/oic.r.button.value = true",
1549               "  else if (Rocker1stAction == 3):",
1550               "  /Button2ResURI/oic.r.button.value = false"
1551             ],
1552             "x-from-ocf": [
1553               "N/A"
1554             ]
1555           }
1556         }
1557       }
1558     },
1559     "type": "object",
1560     "allOf": [
1561       {
1562         "$ref": "#/definitions/F6_02_01"
1563       }
1564     ]
1565   },

```

```

1566     "required": [
1567         "Rocker1stAction"
1568     ]
1569 }

```

1570 8.19 Rocker Switch, 2 Rocker EEP F6-02-02

1571 8.19.1 Derived model

1572 The derived model: "F6_02_02".

1573 8.19.2 Property definition

1574 Table 43 provides the detailed per Property mapping for "F6_02_02".

1575 **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 = 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	N/A

1576 Table 44 provides the details of the Properties that are part of "F6_02_02".

1577 **Table 44 – The Properties of "F6_02_02".**

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

1578 8.19.3 Derived model definition

```

1579 {
1580     "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_02.json#",
1581     "$schema": "http://json-schema.org/draft-04/schema#",
1582     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1583     "title": "Rocker Switch, 2 Rocker EEP F6-02-02",
1584     "definitions": {
1585         "F6_02_02": {
1586             "type": "object",
1587             "properties": {
1588                 "Rocker1stAction": {
1589                     "type": "number",
1590                     "description": "1st action of Rocker",
1591                     "x-ocf-conversion": {
1592                         "x-ocf-alias": "oic.r.button",
1593                         "x-to-ocf": [
1594                             "if (Rocker1stAction == 0):",
1595                             "    /Button1ResURI/oic.r.button.value = true",
1596                             "else if (Rocker1stAction == 1):",
1597                             "    /Button1ResURI/oic.r.button.value = false",
1598                             "    else if (Rocker1stAction == 2):",
1599                             "    /Button2ResURI/oic.r.button.value = true",
1600                             "    else if (Rocker1stAction == 3):",
1601                             "    /Button2ResURI/oic.r.button.value = false"
1602                         ],

```

```

1603         "x-from-ocf": [
1604             "N/A"
1605         ]
1606     }
1607 }
1608 }
1609 }
1610 }
1611 },
1612 "type": "object",
1613 "allOf": [
1614     {
1615         "$ref": "#/definitions/F6_02_02"
1616     }
1617 ],
1618 "required": [
1619     "Rocker1stAction"
1620 ]
1621 }

```

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 = 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	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

```

1631 {
1632     "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_03.json#",
1633     "$schema": "http://json-schema.org/draft-04/schema#",
1634     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1635     "title": "Rocker Switch, 2 Rocker EEP F6-02-03",
1636     "definitions": {
1637         "F6_02_03": {
1638             "type": "object",
1639             "properties": {

```

```

1640         "RockerAction": {
1641             "type": "number",
1642             "description": "Action Code of Rocker",
1643             "x-ocf-conversion": {
1644                 "x-ocf-alias": "oic.r.button",
1645                 "x-to-ocf": [
1646                     "if (RockerAction == 48):",
1647                     "    /Button1ResURI/oic.r.button.value = true",
1648                     "else if (RockerAction == 16):",
1649                     "    /Button1ResURI/oic.r.button.value = false",
1650                     "else if (RockerAction == 112):",
1651                     "    /Button2ResURI/oic.r.button.value = true",
1652                     "else if (RockerAction == 80):",
1653                     "    /Button2ResURI/oic.r.button.value = false"
1654                 ],
1655                 "x-from-ocf": [
1656                     "N/A"
1657                 ]
1658             }
1659         }
1660     },
1661     },
1662 },
1663 },
1664 "type": "object",
1665 "allOf": [
1666     {
1667         "$ref": "#/definitions/F6_02_03"
1668     }
1669 ],
1670 "required": [
1671     "RockerAction"
1672 ]
1673 }

```

1674 8.21 Rocker Switch, 2 Rocker EEP F6-02-04

1675 8.21.1 Derived model

1676 The derived model: "F6_02_04".

1677 8.21.2 Property definition

1678 Table 47 provides the detailed per Property mapping for "F6_02_04".

1679 **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

1680 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

```

1682 {
1683   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_04.json#",
1684   "$schema": "http://json-schema.org/draft-04/schema#",
1685   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1686   "title": "Rocker Switch, 2 Rocker EEP F6-02-04",
1687   "definitions": {
1688     "F6_02_04": {
1689       "type": "object",
1690       "properties": {
1691         "AI": {
1692           "type": "number",
1693           "description": "Rocker A State I",
1694           "x-ocf-conversion": {
1695             "x-ocf-alias": "oic.r.button",
1696             "x-to-ocf": [
1697               "if (AI == 1):",
1698               "  /Button1ResURI/oic.r.button.value = true"
1699             ],
1700             "x-from-ocf": [
1701               "N/A"
1702             ]
1703           },
1704         },
1705         "AO": {
1706           "type": "number",
1707           "description": "Rocker A State O",
1708           "x-ocf-conversion": {
1709             "x-ocf-alias": "oic.r.button",
1710             "x-to-ocf": [
1711               "if (AO == 1):",
1712               "  /Button1ResURI/oic.r.button.value = false"
1713             ],
1714             "x-from-ocf": [
1715               "N/A"
1716             ]
1717           },
1718         },
1719         "BI": {
1720           "type": "number",
1721           "description": "Rocker B State I",
1722           "x-ocf-conversion": {
1723             "x-ocf-alias": "oic.r.button",
1724             "x-to-ocf": [
1725               "if (BI == 1):",
1726               "  /Button2ResURI/oic.r.button.value = true"
1727             ],
1728             "x-from-ocf": [
1729               "N/A"
1730             ]
1731           },
1732         },
1733         "BO": {
1734           "type": "number",
1735           "description": "Rocker B State O",
1736           "x-ocf-conversion": {

```

```

1741         "x-ocf-alias": "oic.r.button",
1742         "x-to-ocf": [
1743             "if (BO == 1):",
1744             "    /Button2ResURI/oic.r.button.value = false"
1745         ],
1746         "x-from-ocf": [
1747             "N/A"
1748         ]
1749     }
1750 }
1751 }
1752 }
1753 }
1754 },
1755 "type": "object",
1756 "allof": [
1757     {
1758         "$ref": "#/definitions/F6_02_04"
1759     }
1760 ],
1761 "required": [
1762     "AI", "AO", "BI", "BO"
1763 ]
1764 }
1765 }

```

1766 8.22 Rocker Switch, 4 Rocker EEP F6-03-01

1767 8.22.1 Derived model

1768 The derived model: "F6_03_01".

1769 8.22.2 Property definition

1770 Table 49 provides the detailed per Property mapping for "F6_03_01".

1771 **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 = 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):	N/A

		/Button4ResURI/oic.r.button.value = false	
--	--	--	--

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 = 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	N/A

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):",

```

```

1853         " /Button1ResURI/oic.r.button.value = false",
1854         "else if (Rocker1stAction == 2):",
1855         " /Button2ResURI/oic.r.button.value = true",
1856         "else if (Rocker1stAction == 3):",
1857         " /Button2ResURI/oic.r.button.value = false",
1858         "else if (Rocker1stAction == 4):",
1859         " /Button3ResURI/oic.r.button.value = true",
1860         "else if (Rocker1stAction == 5):",
1861         " /Button3ResURI/oic.r.button.value = false",
1862         "else if (Rocker1stAction == 6):",
1863         " /Button4ResURI/oic.r.button.value = true",
1864         "else if (Rocker1stAction == 7):",
1865         " /Button4ResURI/oic.r.button.value = false"
1866     ],
1867     "x-from-ocf": [
1868         "N/A"
1869     ]
1870 }
1871 }
1872 }
1873 }
1874 }
1875 },
1876 "type": "object",
1877 "allof": [
1878     {
1879         "$ref": "#/definitions/F6_03_02"
1880     }
1881 ],
1882 "required": [
1883     "Rocker1stAction"
1884 ]
1885 }

```

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 = true else 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

```

1895 {
1896     "id": "http://openinterconnect.org/enOceanmapping/schemas/SingleInputContact.D5_00_01.json#",
1897     "$schema": "http://json-schema.org/draft-04/schema#",

```

```

1898 "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1899 "title": "Single Input Contact EEP D5-00-01",
1900 "definitions": {
1901   "D5_00_01": {
1902     "type": "object",
1903     "properties": {
1904       "contact": {
1905         "type": "number",
1906         "description": "Single Input Contact",
1907         "x-ocf-conversion": {
1908           "x-ocf-alias": "oic.r.sensor.contact",
1909           "x-to-ocf": [
1910             "if (contact==0):",
1911             "    oic.r.sensor.contact.value = true",
1912             "else if (contact==1):",
1913             "    oic.r.sensor.contact.value = false"
1914           ],
1915           "x-from-ocf": [
1916             "N/A"
1917           ]
1918         }
1919       }
1920     }
1921   },
1922 },
1923 "type": "object",
1924 "allOf": [
1925   {"$ref": "#/definitions/D5_00_01"}
1926 ],
1927 "required": [ "contact" ]
1928 }
1929

```

1930 8.25 Smoke Detector EEP F6-05-02

1931 8.25.1 Derived model

1932 The derived model: "F6_05_02".

1933 8.25.2 Property definition

1934 Table 55 provides the detailed per Property mapping for "F6_05_02".

1935 **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 = false else if (smokestatus==16): oic.r.sensor.smoke.value = true	N/A

1936 Table 56 provides the details of the Properties that are part of "F6_05_02".

1937 **Table 56 – The Properties of "F6_05_02".**

EnOcean Property name	Type	Required	Description
smokestatus	number	yes	Smoke detector

1938 8.25.3 Derived model definition

```

1939 {
1940   "id": "http://openinterconnect.org/enOceanmapping/schemas/SmokeDetector.F6_05_02.json#",
1941   "$schema": "http://json-schema.org/draft-04/schema#",
1942   "description" : "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1943   "title": "Smoke Detector EEP F6-05-02",
1944   "definitions": {

```

```

1945     "F6_05_02": {
1946       "type": "object",
1947       "properties": {
1948         "smokestatus": {
1949           "type": "number",
1950           "description": "Smoke detector",
1951           "x-ocf-conversion": {
1952             "x-ocf-alias": "oic.r.sensor.smoke",
1953             "x-to-ocf": [
1954               "if (smokestatus==0):",
1955                 "    oic.r.sensor.smoke.value = false",
1956               "else if (smokestatus==16):",
1957                 "    oic.r.sensor.smoke.value = true"
1958             ],
1959             "x-from-ocf": [
1960               "N/A"
1961             ]
1962           }
1963         }
1964       }
1965     },
1966     "type": "object",
1967     "allOf": [
1968       { "$ref": "#/definitions/F6_05_02" }
1969     ],
1970     "required": [ "smokestatus" ]
1971   }
1972 }
1973

```

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 = temperature oic.r.temperature.units = C oic.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

```

1983 {
1984   "id":
1985     "http://openinterconnect.org/enOceanmapping/schemas/TemperatureHumiditySensor.A5_04_01.json#",
1986   "$schema": "http://json-schema.org/draft-04/schema#",
1987   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1988   "title": "Temperature and Humidity Sensor EEP A5-04-01",

```

```

1989 "definitions": {
1990   "A5_04_01": {
1991     "type": "object",
1992     "properties": {
1993       "temperature": {
1994         "type": "number",
1995         "description": "Current Temperature",
1996         "x-ocf-conversion": {
1997           "x-ocf-alias": "oic.r.temperature",
1998           "x-to-ocf": [
1999             "oic.r.temperature.temperature = temperature",
2000             "oic.r.temperature.units = C",
2001             "oic.r.temperature.range = [0.0, 40.0]"
2002           ],
2003           "x-from-ocf": [
2004             "N/A"
2005           ]
2006         }
2007       },
2008       "relativeHumidity": {
2009         "type": "number",
2010         "description": "Humidity",
2011         "x-ocf-conversion": {
2012           "x-ocf-alias": "oic.r.humidity",
2013           "x-to-ocf": [
2014             "oic.r.humidity.humidity = relativeHumidity"
2015           ],
2016           "x-from-ocf": [
2017             "N/A"
2018           ]
2019         }
2020       }
2021     }
2022   },
2023   "type": "object",
2024   "allof": [
2025     { "$ref": "#/definitions/A5_04_01" }
2026   ],
2027   "required": [ "temperature", "relativeHumidity" ]
2028 }
2029 }
2030

```

2031 8.27 Temperature and Humidity Sensor EEP A5-04-02

2032 8.27.1 Derived model

2033 The derived model: "A5_04_02".

2034 8.27.2 Property definition

2035 Table 59 provides the detailed per Property mapping for "A5_04_02".

2036 **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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-20.0, 60.0]	N/A
relativeHumidity	oic.r.humidity	oic.r.humidity.humidity = relativeHumidity	N/A

2037 Table 60 provides the details of the Properties that are part of "A5_04_02".

2038

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

```

2040 {
2041   "id":
2042   "http://openinterconnect.org/enOceanmapping/schemas/TemperatureHumiditySensor.A5_04_02.json#",
2043   "$schema": "http://json-schema.org/draft-04/schema#",
2044   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2045   "title": "Temperature and Humidity Sensor EEP A5-04-02",
2046   "definitions": {
2047     "A5_04_02": {
2048       "type": "object",
2049       "properties": {
2050         "temperature": {
2051           "type": "number",
2052           "description": "Current Temperature",
2053           "x-ocf-conversion": {
2054             "x-ocf-alias": "oic.r.temperature",
2055             "x-to-ocf": [
2056               "oic.r.temperature.temperature = temperature",
2057               "oic.r.temperature.units = C",
2058               "oic.r.temperature.range = [-20.0, 60.0]"
2059             ],
2060             "x-from-ocf": [
2061               "N/A"
2062             ]
2063           }
2064         },
2065         "relativeHumidity": {
2066           "type": "number",
2067           "description": "Humidity",
2068           "x-ocf-conversion": {
2069             "x-ocf-alias": "oic.r.humidity",
2070             "x-to-ocf": [
2071               "oic.r.humidity.humidity = relativeHumidity"
2072             ],
2073             "x-from-ocf": [
2074               "N/A"
2075             ]
2076           }
2077         }
2078       }
2079     },
2080     "type": "object",
2081     "allOf": [
2082       { "$ref": "#/definitions/A5_04_02" }
2083     ],
2084     "required": [ "temperature", "relativeHumidity" ]
2085   }
2086 }
2087

```

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".

2093

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-20.0, 60.0]	N/A
relativeHumidity	oic.r.humidity	oic.r.humidity.humidity = relativeHumidity	N/A

2094

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

2095

Table 62 – The Properties of "A5_04_03".

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

2096

8.28.3 Derived model definition

2097

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```

{
  "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" }
  ]
}

```

```

2142     "required": [ "temperature", "relativeHumidity"]
2143   }
2144

```

2145 8.29 Temperature Sensor EEP A5-02-01

2146 8.29.1 Derived model

2147 The derived model: "A5_02_01".

2148 8.29.2 Property definition

2149 Table 63 provides the detailed per Property mapping for "A5_02_01".

2150 **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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-40.0, 0.0]	N/A

2151 Table 64 provides the details of the Properties that are part of "A5_02_01".

2152 **Table 64 – The Properties of "A5_02_01".**

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2153 8.29.3 Derived model definition

```

2154 {
2155   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_01.json#",
2156   "$schema": "http://json-schema.org/draft-04/schema#",
2157   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2158   "title": "Temperature Sensor EEP A5-02-01",
2159   "definitions": {
2160     "A5_02_01": {
2161       "type": "object",
2162       "properties": {
2163         "temperature": {
2164           "type": "number",
2165           "description": "Current Temperature",
2166           "x-ocf-conversion": {
2167             "x-ocf-alias": "oic.r.temperature",
2168             "x-to-ocf": [
2169               "oic.r.temperature.temperature = temperature",
2170               "oic.r.temperature.units = C",
2171               "oic.r.temperature.range = [-40.0, 0.0]"
2172             ],
2173             "x-from-ocf": [
2174               "N/A"
2175             ]
2176           }
2177         }
2178       }
2179     },
2180     "type": "object",
2181     "allOf": [
2182       { "$ref": "#/definitions/A5_02_01" }
2183     ],
2184     "required": [ "temperature" ]
2185   }
2186 }
2187

```

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 = temperature oic.r.temperature.units = C oic.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 = temperature oic.r.temperature.units = C oic.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".

2279

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-10.0, 30.0]	N/A

2280

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

2281

Table 70 – The Properties of "A5_02_04".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2282

8.32.3 Derived model definition

2283

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```

{
  "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" ]
}

```

2317

8.33 Temperature Sensor EEP A5-02-05

2318

8.33.1 Derived model

2319

The derived model: "A5_02_05".

2320

8.33.2 Property definition

2321

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

2322

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [0.0, 40.0]	N/A

2323

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

2324

Table 72 – The Properties of "A5_02_05".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2325

8.33.3 Derived model definition

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```

{
  "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" ]
}

```

2360

8.34 Temperature Sensor EEP A5-02-06

2361

8.34.1 Derived model

2362

The derived model: "A5_02_06".

2363

8.34.2 Property definition

2364

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

2365

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [10.0, 50.0]	N/A

2366

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

2367

Table 74 – The Properties of "A5_02_06".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2368

8.34.3 Derived model definition

2369

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2401

2402

```

{
  "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" ]
}

```

2403

8.35 Temperature Sensor EEP A5-02-07

2404

8.35.1 Derived model

2405

The derived model: "A5_02_07".

2406

8.35.2 Property definition

2407

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

2408

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [20.0, 60.0]	N/A

2409

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

2410

Table 76 – The Properties of "A5_02_07".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2411

8.35.3 Derived model definition

2412

```

2413 {
2414   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_07.json#",
2415   "$schema": "http://json-schema.org/draft-04/schema#",
2416   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2417   "title": "Temperature Sensor EEP A5-02-07",
2418   "definitions": {
2419     "A5_02_07": {
2420       "type": "object",
2421       "properties": {
2422         "temperature": {
2423           "type": "number",
2424           "description": "Current Temperature",
2425           "x-ocf-conversion": {
2426             "x-ocf-alias": "oic.r.temperature",
2427             "x-to-ocf": [
2428               "oic.r.temperature.temperature = temperature",
2429               "oic.r.temperature.units = C",
2430               "oic.r.temperature.range = [20.0, 60.0]"
2431             ],
2432             "x-from-ocf": [
2433               "N/A"
2434             ]
2435           }
2436         }
2437       },
2438       "type": "object",
2439       "allOf": [
2440         { "$ref": "#/definitions/A5_02_07" }
2441       ],
2442       "required": [ "temperature" ]
2443     }
2444   }
2445 }
```

2446

8.36 Temperature Sensor EEP A5-02-08

2447

8.36.1 Derived model

2448

The derived model: "A5_02_08".

2449

8.36.2 Property definition

2450

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

2451

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [30.0, 70.0]	N/A

2452 Table 78 provides the details of the Properties that are part of "A5_02_08".

2453

Table 78 – The Properties of "A5_02_08".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2454 **8.36.3 Derived model definition**

```

2455 {
2456   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_08.json#",
2457   "$schema": "http://json-schema.org/draft-04/schema#",
2458   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2459   "title": "Temperature Sensor EEP A5-02-08",
2460   "definitions": {
2461     "A5_02_08": {
2462       "type": "object",
2463       "properties": {
2464         "temperature": {
2465           "type": "number",
2466           "description": "Current Temperature",
2467           "x-ocf-conversion": {
2468             "x-ocf-alias": "oic.r.temperature",
2469             "x-to-ocf": [
2470               "oic.r.temperature.temperature = temperature",
2471               "oic.r.temperature.units = C",
2472               "oic.r.temperature.range = [30.0, 70.0]"
2473             ],
2474             "x-from-ocf": [
2475               "N/A"
2476             ]
2477           }
2478         }
2479       }
2480     },
2481     "type": "object",
2482     "allOf": [
2483       { "$ref": "#/definitions/A5_02_08" }
2484     ],
2485     "required": [ "temperature" ]
2486   }
2487 }
2488

```

2489 **8.37 Temperature Sensor EEP A5-02-09**2490 **8.37.1 Derived model**

2491 The derived model: "A5_02_09".

2492 **8.37.2 Property definition**

2493 Table 79 provides the detailed per Property mapping for "A5_02_09".

2494

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [40.0, 80.0]	N/A

2495

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

2496

Table 80 – The Properties of "A5_02_09".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2497

8.37.3 Derived model definition

2498

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```

{
  "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" ]
}

```

2532

8.38 Temperature Sensor EEP A5-02-0A

2533

8.38.1 Derived model

2534

The derived model: "A5_02_0A".

2535

8.38.2 Property definition

2536

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

2537

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [50.0, 90.0]	N/A

2538

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

2539

Table 82 – The Properties of "A5_02_0A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2540

8.38.3 Derived model definition

2541

```

{
  "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" ]
}

```

2574

2575

8.39 Temperature Sensor EEP A5-02-0B

2576

8.39.1 Derived model

2577

The derived model: "A5_02_0B".

2578

8.39.2 Property definition

2579

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

2580

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [60.0, 100.0]	N/A

2581

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

2582

Table 84 – The Properties of "A5_02_0B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2583

8.39.3 Derived model definition

2584

```

2585 {
2586   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_0B.json#",
2587   "$schema": "http://json-schema.org/draft-04/schema#",
2588   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2589   "title": "Temperature Sensor EEP A5-02-0B",
2590   "definitions": {
2591     "A5_02_0B": {
2592       "type": "object",
2593       "properties": {
2594         "temperature": {
2595           "type": "number",
2596           "description": "Current Temperature",
2597           "x-ocf-conversion": {
2598             "x-ocf-alias": "oic.r.temperature",
2599             "x-to-ocf": [
2600               "oic.r.temperature.temperature = temperature",
2601               "oic.r.temperature.units = C",
2602               "oic.r.temperature.range = [60.0, 100.0]"
2603             ],
2604             "x-from-ocf": [
2605               "N/A"
2606             ]
2607           }
2608         }
2609       },
2610       "type": "object",
2611       "allOf": [
2612         { "$ref": "#/definitions/A5_02_0B" }
2613       ],
2614       "required": [ "temperature" ]
2615     }
2616   }
2617 }
```

2618

8.40 Temperature Sensor EEP A5-02-10

2619

8.40.1 Derived model

2620

The derived model: "A5_02_10".

2621

8.40.2 Property definition

2622

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

2623

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-60.0, 20.0]	N/A

2624

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

2625

Table 86 – The Properties of "A5_02_10".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2626

8.40.3 Derived model definition

2627

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2660

```

{
  "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" ]
}

```

2661

8.41 Temperature Sensor EEP A5-02-11

2662

8.41.1 Derived model

2663

The derived model: "A5_02_11".

2664

8.41.2 Property definition

2665

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

2666

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-50.0, 30.0]	N/A

2667

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

2668

Table 88 – The Properties of "A5_02_11".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2669

8.41.3 Derived model definition

2670

```

2671 {
2672   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_11.json#",
2673   "$schema": "http://json-schema.org/draft-04/schema#",
2674   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2675   "title": "Temperature Sensor EEP A5-02-11",
2676   "definitions": {
2677     "A5_02_11": {
2678       "type": "object",
2679       "properties": {
2680         "temperature": {
2681           "type": "number",
2682           "description": "Current Temperature",
2683           "x-ocf-conversion": {
2684             "x-ocf-alias": "oic.r.temperature",
2685             "x-to-ocf": [
2686               "oic.r.temperature.temperature = temperature",
2687               "oic.r.temperature.units = C",
2688               "oic.r.temperature.range = [-50.0, 30.0]"
2689             ],
2690             "x-from-ocf": [
2691               "N/A"
2692             ]
2693           }
2694         }
2695       },
2696       "type": "object",
2697       "allOf": [
2698         {"$ref": "#/definitions/A5_02_11"}
2699       ],
2700       "required": [ "temperature" ]
2701     }
2702   }
2703 }

```

2704

8.42 Temperature Sensor EEP A5-02-12

2705

8.42.1 Derived model

2706

The derived model: "A5_02_12".

2707

8.42.2 Property definition

2708

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

2709

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-40.0, 40.0]	N/A

2710

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

2711

Table 90 – The Properties of "A5_02_12".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2712

8.42.3 Derived model definition

2713

```

2714 {
2715   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_12.json#",
2716   "$schema": "http://json-schema.org/draft-04/schema#",
2717   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2718   "title": "Temperature Sensor EEP A5-02-12",
2719   "definitions": {
2720     "A5_02_12": {
2721       "type": "object",
2722       "properties": {
2723         "temperature": {
2724           "type": "number",
2725           "description": "Current Temperature",
2726           "x-ocf-conversion": {
2727             "x-ocf-alias": "oic.r.temperature",
2728             "x-to-ocf": [
2729               "oic.r.temperature.temperature = temperature",
2730               "oic.r.temperature.units = C",
2731               "oic.r.temperature.range = [-40.0, 40.0]"
2732             ],
2733             "x-from-ocf": [
2734               "N/A"
2735             ]
2736           }
2737         }
2738       },
2739       "type": "object",
2740       "allOf": [
2741         { "$ref": "#/definitions/A5_02_12" }
2742       ],
2743       "required": [ "temperature" ]
2744     }
2745   }
2746 }

```

2747

8.43 Temperature Sensor EEP A5-02-13

2748

8.43.1 Derived model

2749

The derived model: "A5_02_13".

2750

8.43.2 Property definition

2751

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

2752

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-30.0, 50.0]	N/A

2753

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

2754

Table 92 – The Properties of "A5_02_13".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2755

8.43.3 Derived model definition

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```

{
  "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" ]
}

```

2790

8.44 Temperature Sensor EEP A5-02-14

2791

8.44.1 Derived model

2792

The derived model: "A5_02_14".

2793

8.44.2 Property definition

2794

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

2795

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-20.0, 60.0]	N/A

2796

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

2797

Table 94 – The Properties of "A5_02_14".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2798

8.44.3 Derived model definition

2799

```

2800 {
2801   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_14.json#",
2802   "$schema": "http://json-schema.org/draft-04/schema#",
2803   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2804   "title": "Temperature Sensor EEP A5-02-14",
2805   "definitions": {
2806     "A5_02_14": {
2807       "type": "object",
2808       "properties": {
2809         "temperature": {
2810           "type": "number",
2811           "description": "Current Temperature",
2812           "x-ocf-conversion": {
2813             "x-ocf-alias": "oic.r.temperature",
2814             "x-to-ocf": [
2815               "oic.r.temperature.temperature = temperature",
2816               "oic.r.temperature.units = C",
2817               "oic.r.temperature.range = [-20.0, 60.0]"
2818             ],
2819             "x-from-ocf": [
2820               "N/A"
2821             ]
2822           }
2823         }
2824       },
2825       "type": "object",
2826       "allOf": [
2827         { "$ref": "#/definitions/A5_02_14" }
2828       ],
2829       "required": [ "temperature" ]
2830     }
2831   }
2832 }

```

2833

8.45 Temperature Sensor EEP A5-02-15

2834

8.45.1 Derived model

2835

The derived model: "A5_02_15".

2836

8.45.2 Property definition

2837

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

2838

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-10.0, 70.0]	N/A

2839

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

2840

Table 96 – The Properties of "A5_02_15".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2841

8.45.3 Derived model definition

2842

```

2843 {
2844   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_15.json#",
2845   "$schema": "http://json-schema.org/draft-04/schema#",
2846   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2847   "title": "Temperature Sensor EEP A5-02-15",
2848   "definitions": {
2849     "A5_02_15": {
2850       "type": "object",
2851       "properties": {
2852         "temperature": {
2853           "type": "number",
2854           "description": "Current Temperature",
2855           "x-ocf-conversion": {
2856             "x-ocf-alias": "oic.r.temperature",
2857             "x-to-ocf": [
2858               "oic.r.temperature.temperature = temperature",
2859               "oic.r.temperature.units = C",
2860               "oic.r.temperature.range = [-10.0, 70.0]"
2861             ],
2862             "x-from-ocf": [
2863               "N/A"
2864             ]
2865           }
2866         }
2867       },
2868       "type": "object",
2869       "allOf": [
2870         { "$ref": "#/definitions/A5_02_15" }
2871       ],
2872       "required": [ "temperature" ]
2873     }
2874   }
2875 }

```

2876

8.46 Temperature Sensor EEP A5-02-16

2877

8.46.1 Derived model

2878

The derived model: "A5_02_16".

2879

8.46.2 Property definition

2880

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

2881

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [0.0, 80.0]	N/A

2882

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

2883

Table 98 – The Properties of "A5_02_16".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2884

8.46.3 Derived model definition

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```

{
  "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" ]
}

```

2919

8.47 Temperature Sensor EEP A5-02-17

2920

8.47.1 Derived model

2921

The derived model: "A5_02_17".

2922

8.47.2 Property definition

2923

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

2924

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [10.0, 90.0]	N/A

2925

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

2926

Table 100 – The Properties of "A5_02_17".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2927

8.47.3 Derived model definition

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```

{
  "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" ]
}

```

2962

8.48 Temperature Sensor EEP A5-02-18

2963

8.48.1 Derived model

2964

The derived model: "A5_02_18".

2965

8.48.2 Property definition

2966

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

2967

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [20.0, 100.0]	N/A

2968

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

2969

Table 102 – The Properties of "A5_02_18".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2970

8.48.3 Derived model definition

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```

{
  "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" ]
}

```

3005

8.49 Temperature Sensor EEP A5-02-19

3006

8.49.1 Derived model

3007

The derived model: "A5_02_19".

3008

8.49.2 Property definition

3009

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

3010

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [30.0, 110.0]	N/A

3011

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

3012

Table 104 – The Properties of "A5_02_19".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3013

8.49.3 Derived model definition

3014

```

{
  "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" ]
}

```

3047

3048

8.50 Temperature Sensor EEP A5-02-1A

3049

8.50.1 Derived model

3050

The derived model: "A5_02_1A".

3051

8.50.2 Property definition

3052

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

3053

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [40.0, 120.0]	N/A

3054

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

3055

Table 106 – The Properties of "A5_02_1A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3056

8.50.3 Derived model definition

3057

```

3058 {
3059   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_1A.json#",
3060   "$schema": "http://json-schema.org/draft-04/schema#",
3061   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3062   "title": "Temperature Sensor EEP A5-02-1A",
3063   "definitions": {
3064     "A5_02_1A": {
3065       "type": "object",
3066       "properties": {
3067         "temperature": {
3068           "type": "number",
3069           "description": "Current Temperature",
3070           "x-ocf-conversion": {
3071             "x-ocf-alias": "oic.r.temperature",
3072             "x-to-ocf": [
3073               "oic.r.temperature.temperature = temperature",
3074               "oic.r.temperature.units = C",
3075               "oic.r.temperature.range = [40.0, 120.0]"
3076             ],
3077             "x-from-ocf": [
3078               "N/A"
3079             ]
3080           }
3081         }
3082       },
3083       "type": "object",
3084       "allOf": [
3085         { "$ref": "#/definitions/A5_02_1A" }
3086       ],
3087       "required": [ "temperature" ]
3088     }
3089   }
3090 }

```

3091

8.51 Temperature Sensor EEP A5-02-1B

3092

8.51.1 Derived model

3093

The derived model: "A5_02_1B".

3094

8.51.2 Property definition

3095

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

3096

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [50.0, 130.0]	N/A

3097 Table 108 provides the details of the Properties that are part of "A5_02_1B".

3098

Table 108 – The Properties of "A5_02_1B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3099 **8.51.3 Derived model definition**

```

3100 {
3101   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_1B.json#",
3102   "$schema": "http://json-schema.org/draft-04/schema#",
3103   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3104   "title": "Temperature Sensor EEP A5-02-1B",
3105   "definitions": {
3106     "A5_02_1B": {
3107       "type": "object",
3108       "properties": {
3109         "temperature": {
3110           "type": "number",
3111           "description": "Current Temperature",
3112           "x-ocf-conversion": {
3113             "x-ocf-alias": "oic.r.temperature",
3114             "x-to-ocf": [
3115               "oic.r.temperature.temperature = temperature",
3116               "oic.r.temperature.units = C",
3117               "oic.r.temperature.range = [50.0, 130.0]"
3118             ],
3119             "x-from-ocf": [
3120               "N/A"
3121             ]
3122           }
3123         }
3124       }
3125     },
3126   },
3127   "type": "object",
3128   "allOf": [
3129     { "$ref": "#/definitions/A5_02_1B" }
3130   ],
3131   "required": [ "temperature" ]
3132 }
3133

```

3134 **8.52 Temperature Sensor EEP A5-02-20**3135 **8.52.1 Derived model**

3136 The derived model: "A5_02_20".

3137 **8.52.2 Property definition**

3138 Table 109 provides the detailed per Property mapping for "A5_02_20".

3139

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-10.0, 41.2]	N/A

3140

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

3141

Table 110 – The Properties of "A5_02_20".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3142

8.52.3 Derived model definition

3143

```

3144 {
3145   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_20.json#",
3146   "$schema": "http://json-schema.org/draft-04/schema#",
3147   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3148   "title": "Temperature Sensor EEP A5-02-20",
3149   "definitions": {
3150     "A5_02_20": {
3151       "type": "object",
3152       "properties": {
3153         "temperature": {
3154           "type": "number",
3155           "description": "Current Temperature",
3156           "x-ocf-conversion": {
3157             "x-ocf-alias": "oic.r.temperature",
3158             "x-to-ocf": [
3159               "oic.r.temperature.temperature = temperature",
3160               "oic.r.temperature.units = C",
3161               "oic.r.temperature.range = [-10.0, 41.2]"
3162             ],
3163             "x-from-ocf": [
3164               "N/A"
3165             ]
3166           }
3167         }
3168       },
3169       "type": "object",
3170       "allOf": [
3171         { "$ref": "#/definitions/A5_02_20" }
3172       ],
3173       "required": [ "temperature" ]
3174     }
3175   }
3176 }

```

3177

8.53 Temperature Sensor EEP A5-02-30

3178

8.53.1 Derived model

3179

The derived model: "A5_02_30".

3180

8.53.2 Property definition

3181

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

3182

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 = temperature oic.r.temperature.units = C oic.r.temperature.range = [-40.0, 62.3]	N/A

3183

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

3184

Table 112 – The Properties of "A5_02_30".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3185

8.53.3 Derived model definition

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```

{
  "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" ]
}

```