

OCF Resource to EnOcean Mapping Specification

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CONTENTS

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	4
35	5.2.3	Range	4
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.....	6
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.....	13
50	7.3	Telegram Parameters	14
51	7.3.1	Push Button	14
52	7.3.2	Rocker 1 st Action.....	14
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.....	15
60	7.3.10	PIR/Occupancy	15
61	7.4	Indirect Parameters through EnOcean Equipment Profile.....	15
62	7.4.1	Introduction	15
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	16
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	17
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	18
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	19
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	20
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	21
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	25
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	27
111	8.13	Liquid Leakage Detector (Water) EEP F6-05-01	28
112	8.13.1	Derived model	28
113	8.13.2	Property definition	28
114	8.13.3	Derived model definition	28
115	8.14	Occupancy Sensor EEP A5-07-01	29
116	8.14.1	Derived model	29
117	8.14.2	Property definition	29
118	8.14.3	Derived model definition	29
119	8.15	Occupancy Sensor EEP A5-07-02	30
120	8.15.1	Derived model	30
121	8.15.2	Property definition	30
122	8.15.3	Derived model definition	30
123	8.16	Occupancy Sensor EEP A5-07-03	31
124	8.16.1	Derived model	31
125	8.16.2	Property definition	31
126	8.16.3	Derived model definition	31
127	8.17	Push Button, EEP F6-01-01	32
128	8.17.1	Derived model	32
129	8.17.2	Property definition	32
130	8.17.3	Derived model definition	32
131	8.18	Rocker Switch, 2 Rocker EEP F6-02-01	33
132	8.18.1	Derived model	33
133	8.18.2	Property definition	33
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	39
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	44
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	45
175	8.29	Temperature Sensor EEP A5-02-01	46
176	8.29.1	Derived model	46
177	8.29.2	Property definition	46
178	8.29.3	Derived model definition	47
179	8.30	Temperature Sensor EEP A5-02-02	47
180	8.30.1	Derived model	47
181	8.30.2	Property definition	47
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	48
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	5
Figure 2 – Case for EnOcean Bridging	5

Tables

281	Table 1 - Translation Rule between EnOcean Devices and OCF Data Models	6
282	Table 2 - EnOcean to OCF Mapping Example.....	6
283	Table 3 – "oic.wk.p" Resource Type definition	8
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	13
289	Table 9 – The Property mapping for "A5_05_01".	15
290	Table 10 – The Properties of "A5_05_01".	16
291	Table 11 – The Property mapping for "F6_04_01".....	16
292	Table 12 – The Properties of "F6_04_01".	17
293	Table 13 – The Property mapping for "F6_04_02"	17
294	Table 14 – The Properties of "F6_04_02".	18
295	Table 15 – The Property mapping for "A5_06_01".	18
296	Table 16 – The Properties of "A5_06_01".	19
297	Table 17 – The Property mapping for "A5_06_02".	19
298	Table 18 – The Properties of "A5_06_02".	20
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".	25
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".....	36
329	Table 49 – The Property mapping for "F6_03_01".....	38
330	Table 50 – The Properties of "F6_03_01".....	38
331	Table 51 – The Property mapping for "F6_03_02".....	39
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".....	44
341	Table 61 – The Property mapping for "A5_04_03".....	45
342	Table 62 – The Properties of "A5_04_03".....	45
343	Table 63 – The Property mapping for "A5_02_01".....	46
344	Table 64 – The Properties of "A5_02_01".....	47
345	Table 65 – The Property mapping for "A5_02_02".....	47
346	Table 66 – The Properties of "A5_02_02".....	48
347	Table 67 – The Property mapping for "A5_02_03".....	48
348	Table 68 – The Properties of "A5_02_03".....	49
349	Table 69 – The Property mapping for "A5_02_04".....	49
350	Table 70 – The Properties of "A5_02_04".....	50
351	Table 71 – The Property mapping for "A5_02_05".....	50
352	Table 72 – The Properties of "A5_02_05".....	51
353	Table 73 – The Property mapping for "A5_02_06".....	51
354	Table 74 – The Properties of "A5_02_06".....	52
355	Table 75 – The Property mapping for "A5_02_07".....	52
356	Table 76 – The Properties of "A5_02_07".....	53
357	Table 77 – The Property mapping for "A5_02_08".....	53

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

394 **1 Scope**

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

397 **2 Normative references**

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

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

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

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

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

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

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

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

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

430 **3 Terms, definitions, symbols and abbreviated terms**

431 **3.1 Terms and definitions**

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

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

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

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

438 **3.1.1 EnOcean Device**

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

441 **3.1.2 EnOcean Shadow Device**

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

444 **3.1.3 EnOcean Bridge Platform**

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

448 **3.1.4 EnOcean Telegram**

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

451 **3.1.5 EnOcean Teach-In Information**

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

453 **3.1.6 EnOcean Transceiver**

454 Hardware to communicate bi-directional in the ERP.

455 **3.2 Abbreviated terms**

456 **3.2.1 ERP**

457 EnOcean Radio Protocol
458 Protocol for Sending/Receiving EnOcean Telegrams

459 **3.2.2 EEP**

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

463 **3.2.3 RORG**

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

466 **4 Document conventions and organization**

467 **4.1 Conventions**

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

472 **4.2 Notation**

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

475 Required (or shall or mandatory).

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

479 Recommended (or should).

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

487 Allowed (or allowed).

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

491 Conditionally allowed (CA)

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

494 Conditionally required (CR)

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

498 DEPRECATED

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

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

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

507 **5 Theory of Operation**

508 **5.1 Interworking Approach**

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

512 **5.2 General**

513 All statements are terminated with a carriage return.

514 **5.2.1 Value Assignment**

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

517 **5.2.2 Property Naming**

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

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

523 **5.2.3 Range**

524 The range on the OCF side is fixed.

525 **5.2.4 Arrays**

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

528 **5.2.5 Default Mapping**

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

532 **5.2.6 Conditional Mapping**

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

534 If "condition", then "mapping"

535 is applied.

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

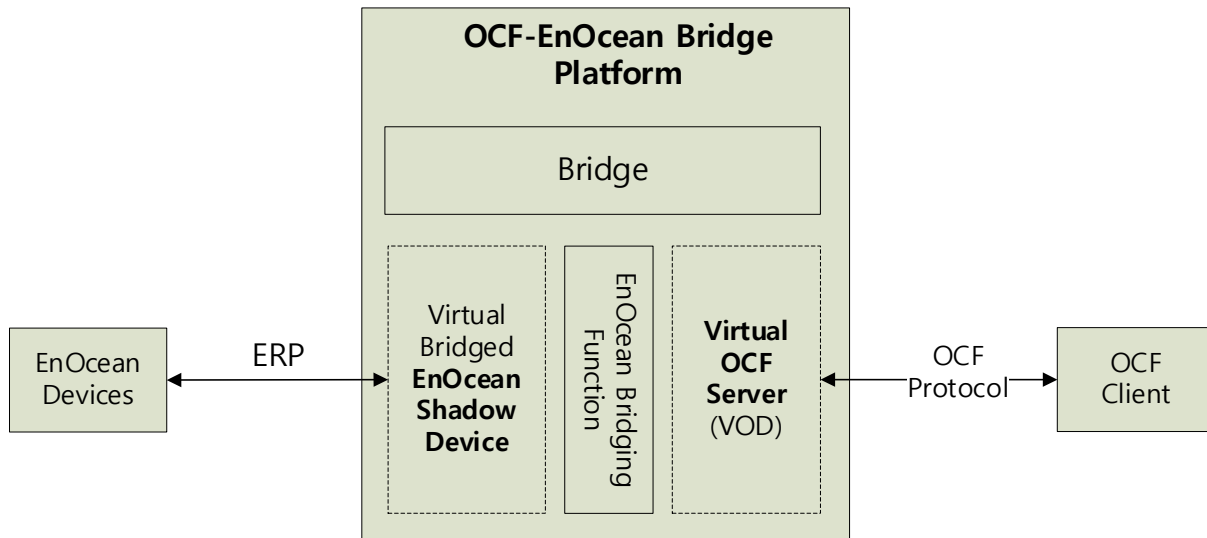
537 **5.2.7 Method Invocation**

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

542 **6 EnOcean Translation**

543 **6.1 Operational Scenarios**

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



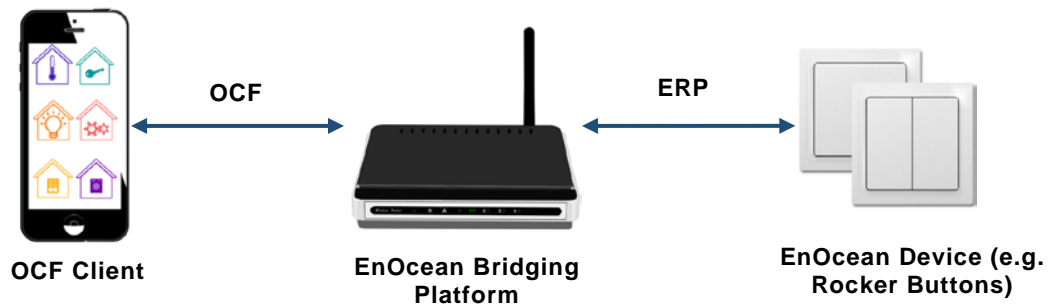
551

552

Figure 1– OCF EnOcean Bridge Platform and Components

553 **6.1.1 Use case for EnOcean Bridging**

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



560

561

Figure 2 – Case for EnOcean Bridging

562 **6.2 Requirements specific to EnOcean Bridging Function**

563 **6.2.1 Introduction**

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

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

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

573 6.2.2 Exposing EnOcean Devices to OCF Clients

574 6.2.2.1 General Requirements

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

578 **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

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

582 **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

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

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

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

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

600 **6.2.2.2 Translation for well-defined EEPs**

601 If an EnOcean Device uses an EEP which is well-defined in clause 8 the EnOcean Bridging
 602 Function shall follow it to translate the Device and it's Telegram Parameters to an OCF Device,
 603 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 (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
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605 **6.2.2.3 Exposing an EnOcean Device as a Virtual OCF Device**

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

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

607

608

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

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

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

609

610

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

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

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

611

612 6.2.3 Protocol Translation between EnOcean and OCF

613 6.2.3.1 EnOcean Behavior translated to OCF Actions

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

616

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)

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

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

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

631 **6.2.3.2 OCF Actions and EnOcean Bridge results**

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

634 **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)

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

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

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

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

647 **7 Device Type Mapping**

648 **7.1 Introduction**

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

652 **7.2 EnOcean Equipment Profiles to OCF Device Types and OCF Resource Types**

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

655 **Table 8 - EnOcean to OCF Mapping Table**

EnOcean Device Name (EEP)	EnOcean Telegram Parameters	OCF Resource Type(s)	OCF Device Type	OCF Device Name
Push Button (F6-01-01)	Push Button Released Push Button Pressed	oic.r.button	oic.d.sensor	Generic Sensor
Rocker Switch, 2 Rocker (F6-02-XX)	Rocker 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 (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
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656 **7.3 Telegram Parameters**

657 **7.3.1 Push Button**

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

661 **7.3.2 Rocker 1st Action**

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

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

668 **7.3.3 Key Card**

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

672 **7.3.4 Alert Signals**

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

677 **7.3.5 Open/Closed**

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

682 **7.3.6 Temperature**

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

686 **7.3.7 Barometer**

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

690 **7.3.8 Illumination**

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

694 **7.3.9 Humidity**

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

698 **7.3.10 PIR/Occupancy**

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

701 **7.4 Indirect Parameters through EnOcean Equipment Profile**

702 **7.4.1 Introduction**

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

706 **7.4.2 Range**

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

711 **7.4.3 Unit**

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

715 **8 Detailed Mapping APIs**

716 **8.1 Introduction**

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

720 **8.2 Barometric Sensor EEP A5-05-01**

721 **8.2.1 Derived model**

722 The derived model: "A5_05_01".

723 **8.2.2 Property definition**

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

725 **Table 9 – The Property mapping for "A5_05_01".**

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

726 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

728 8.2.3 Derived model definition

```

729 {
730   "id": "http://openinterconnect.org/enOceanmapping/schemas/BarometricSensor.A5_05_01.json#",
731   "$schema": "http://json-schema.org/draft-04/schema#",
732   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
733   "title": "Barometric Sensor EEP A5-05-01",
734   "definitions": {
735     "A5_05_01": {
736       "type": "object",
737       "properties": {
738         "barometer": {
739           "type": "number",
740           "description": "Current Pressure",
741           "x-ocf-conversion": {
742             "x-ocf-alias": "oic.r.sensor.atmosphericpressure",
743             "x-to-ocf": [
744               "oic.r.sensor.atmosphericpressure.atmosphericPressure = barometer",
745               "oic.r.sensor.atmosphericpressure.range = [500.0, 1150.0]"
746             ],
747             "x-from-ocf": [
748               "N/A"
749             ]
750           }
751         }
752       }
753     }
754   },
755   "type": "object",
756   "allOf": [
757     {"$ref": "#/definitions/A5_05_01"}
758   ],
759   "required": [ "barometer" ]
760 }
761

```

762 8.3 Key Card Switch, EEP F6-04-01

763 8.3.1 Derived model

764 The derived model: "F6_04_01".

765 8.3.2 Property definition

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

767 **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

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

Table 12 – The Properties of "F6_04_01".

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

8.3.3 Derived model definition

```

770
771 {
772   "id": "http://openinterconnect.org/enOceanmapping/schemas/KeyCardSwitch.F6_04_01.json#",
773   "$schema": "http://json-schema.org/draft-04/schema#",
774   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
775   "title": "Key Card Switch, EEP F6-04-01",
776   "definitions": {
777     "F6_04_01": {
778       "type": "object",
779       "properties": {
780         "KeyCard": {
781           "type": "number",
782           "description": "Valid Key Card inserted or Taken out",
783           "x-ocf-conversion": {
784             "x-ocf-alias": "oic.r.keycardswitch",
785             "x-to-ocf": [
786               "if (KeyCard == 112):",
787               "  oic.r.keycardswitch.stateofcard = 'validCardInserted'",
788               "else:",
789               "  oic.r.keycardswitch.stateofcard =
790 'validCardNotInserted'
791             ],
792             "x-from-ocf": [
793               "N/A"
794             ]
795           }
796         }
797       }
798     }
799   },
800   "type": "object",
801   "allOf": [
802     {
803       "$ref": "#/definitions/F6_04_01"
804     }
805   ],
806   "required": [
807     "KeyCard"
808   ]
809 }
810

```

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

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

818 **Table 14 – The Properties of "F6_04_02".**

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

819 **8.4.3 Derived model definition**

```

820 {
821   "id": "http://openinterconnect.org/enOceanmapping/schemas/KeyCardSwitch.F6_04_02.json#",
822   "$schema": "http://json-schema.org/draft-04/schema#",
823   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
824   "title": "Key Card Switch, EEP F6-04-02",
825   "definitions": {
826     "F6_04_02": {
827       "type": "object",
828       "properties": {
829         "StateOfCard": {
830           "type": "number",
831           "description": "Valid Key Card inserted or Taken out",
832           "x-ocf-conversion": {
833             "x-ocf-alias": "oic.r.keycardswitch",
834             "x-to-ocf": [
835               "if (StateOfCard == 1):",
836                 "  oic.r.keycardswitch.stateofcard = 'validCardInserted'",
837             "else:",
838               "  oic.r.keycardswitch.stateofcard =
839 'validCardNotInserted'",
840           ],
841           "x-from-ocf": [
842             "N/A"
843           ]
844         }
845       }
846     }
847   }
848 },
849 "type": "object",
850 "allOf": [
851   {
852     "$ref": "#/definitions/F6_04_02"
853   }
854 ],
855 "required": [
856   "StateOfCard"
857 ]
858 }
859 }

```

860 **8.5 Light Sensor EEP A5-06-01**

861 **8.5.1 Derived model**

862 The derived model: "A5_06_01".

863 **8.5.2 Property definition**

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

865 **Table 15 – The Property mapping for "A5_06_01".**

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

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

867 **Table 16 – The Properties of "A5_06_01".**

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

868 **8.5.3 Derived model definition**

```

869 {
870   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_01.json#",
871   "$schema": "http://json-schema.org/draft-04/schema#",
872   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
873   "title": "Light Sensor EEP A5-06-01",
874   "definitions": {
875     "A5_06_01": {
876       "type": "object",
877       "properties": {
878         "lightsensor": {
879           "type": "number",
880           "description": "Current Illuminance in Lux",
881           "x-ocf-conversion": {
882             "x-ocf-alias": "oic.r.sensor.illuminance",
883             "x-to-ocf": [
884               "oic.r.sensor.illuminance.illuminance = lightsensor",
885               "oic.r.sensor.illuminance.range = [300.0, 60000.0]"
886             ],
887             "x-from-ocf": [
888               "N/A"
889             ]
890           }
891         }
892       }
893     }
894   },
895   "type": "object",
896   "allOf": [
897     {"$ref": "#/definitions/A5_06_01"}
898   ],
899   "required": [ "lightsensor" ]
900 }
901

```

902 **8.6 Light Sensor EEP A5-06-02**

903 **8.6.1 Derived model**

904 The derived model: "A5_06_02".

905 **8.6.2 Property definition**

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

907 **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

908 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

```

910
911 {
912   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_02.json#",
913   "$schema": "http://json-schema.org/draft-04/schema#",
914   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
915   "title": "Light Sensor EEP A5-06-02",
916   "definitions": {
917     "A5_06_02": {
918       "type": "object",
919       "properties": {
920         "lightsensor": {
921           "type": "number",
922           "description": "Current Illuminance in Lux",
923           "x-ocf-conversion": {
924             "x-ocf-alias": "oic.r.sensor.illuminance",
925             "x-to-ocf": [
926               "oic.r.sensor.illuminance.illuminance = lightsensor",
927               "oic.r.sensor.illuminance.range = [0.0, 1020.0]"
928             ],
929             "x-from-ocf": [
930               "N/A"
931             ]
932           }
933         }
934       }
935     }
936   },
937   "type": "object",
938   "allOf": [
939     {"$ref": "#/definitions/A5_06_02"}
940   ],
941   "required": [ "lightsensor" ]
942 }
943

```

8.7 Light Sensor EEP A5-06-03**8.7.1 Derived model**

946 The derived model: "A5_06_03".

8.7.2 Property definition

948 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

950 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

952 **8.7.3 Derived model definition**

```

953 {
954   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_03.json#",
955   "$schema": "http://json-schema.org/draft-04/schema#",
956   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
957   "title": "Light Sensor EEP A5-06-03",
958   "definitions": {
959     "A5_06_03": {
960       "type": "object",
961       "properties": {
962         "lightsensor": {
963           "type": "number",
964           "description": "Current Illuminance in Lux",
965           "x-ocf-conversion": {
966             "x-ocf-alias": "oic.r.sensor.illuminance",
967             "x-to-ocf": [
968               "oic.r.sensor.illuminance.illuminance = lightsensor",
969               "oic.r.sensor.illuminance.range = [0.0, 1000.0]"
970             ],
971             "x-from-ocf": [
972               "N/A"
973             ]
974           }
975         }
976       }
977     }
978   },
979   "type": "object",
980   "allOf": [
981     {"$ref": "#/definitions/A5_06_03"}
982   ],
983   "required": [ "lightsensor" ]
984 }
985
986

```

987 **8.8 Light Sensor EEP A5-06-04**

988 **8.8.1 Derived model**

989 The derived model: "A5_06_04".

990 **8.8.2 Property definition**

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

992 **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

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

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

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

995 **8.8.3 Derived model definition**

```

996 {
997   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_04.json#",
998   "$schema": "http://json-schema.org/draft-04/schema#",
999   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",

```

```

1000     "title": "Light Sensor EEP A5-06-04",
1001     "definitions": {
1002       "A5_06_04": {
1003         "type": "object",
1004         "properties": {
1005           "lightsensor": {
1006             "type": "number",
1007             "description": "Current Illuminance in Lux",
1008             "x-ocf-conversion": {
1009               "x-ocf-alias": "oic.r.sensor.illuminance",
1010               "x-to-ocf": [
1011                 "oic.r.sensor.illuminance.illuminance = lightsensor",
1012                 "oic.r.sensor.illuminance.range = [0.0, 65535.0]"
1013               ]
1014             },
1015             "x-from-ocf": [
1016               "N/A"
1017             ]
1018           }
1019         }
1020       }
1021     }
1022   },
1023 },
1024 "type": "object",
1025 "allOf": [
1026   {"$ref": "#/definitions/A5_06_04"}
1027 ],
1028 "required": [ "lightsensor" ]
1029 }
1030

```

1031 **8.9 Light Sensor EEP A5-06-05**

1032 **8.9.1 Derived model**

1033 The derived model: "A5_06_05".

1034 **8.9.2 Property definition**

1035 Table 23 provides the detailed per Property mapping for "A5_06_05".

1036 **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

1037 Table 24 provides the details of the Properties that are part of "A5_06_05".

1038 **Table 24 – The Properties of "A5_06_05".**

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

1039 **8.9.3 Derived model definition**

```

1040 {
1041   "id": "http://openinterconnect.org/enOceanmapping/schemas/LightSensor.A5_06_05.json#",
1042   "$schema": "http://json-schema.org/draft-04/schema#",
1043   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1044   "title": "Light Sensor EEP A5-06-05",
1045   "definitions": {
1046     "A5_06_05": {
1047       "type": "object",
1048       "properties": {

```

```

1049     "lightsensor": {
1050       "type": "number",
1051       "description": "Current Illuminance in Lux",
1052       "x-ocf-conversion": {
1053         "x-ocf-alias": "oic.r.sensor.illuminance",
1054         "x-to-ocf": [
1055           "oic.r.sensor.illuminance.illuminance = lightsensor",
1056           "oic.r.sensor.illuminance.range = [0.0, 10200.0]"
1057         ],
1058       },
1059       "x-from-ocf": [
1060         "N/A"
1061       ]
1062     }
1063   }
1064 }
1065 }
1066 },
1067 "type": "object",
1068 "allOf": [
1069   {"$ref": "#/definitions/A5_06_05"}
1070 ],
1071 "required": [ "lightsensor" ]
1072 }
1073

```

1074 **8.10 Light, Temperature and Occupancy Sensor EEP A5-08-01**

1075 **8.10.1 Derived model**

1076 The derived model: "A5_08_01".

1077 **8.10.2 Property definition**

1078 Table 25 provides the detailed per Property mapping for "A5_08_01".

1079 **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 = Coic.r.temperature.range = [0.0, 51.0]	N/A

1080 Table 26 provides the details of the Properties that are part of "A5_08_01".

1081 **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

1082 **8.10.3 Derived model definition**

```

1083 {
1084   "id":
1085   "http://openinterconnect.org/enOceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_01.json#"
1086 ,

```

```

1087 "$schema": "http://json-schema.org/draft-04/schema#",
1088 "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1089 "title": "Light, Temperature and Occupancy Sensor EEP A5-08-01",
1090 "definitions": {
1091   "A5_08_01": {
1092     "type": "object",
1093     "properties": {
1094       "PIR": {
1095         "type": "number",
1096         "description": "Occupancy",
1097         "x-ocf-conversion": {
1098           "x-ocf-alias": "oic.r.sensor.presence",
1099           "x-to-ocf": [
1100             "if (PIR==0):",
1101               "    oic.r.sensor.presence.value = true",
1102             "else:",
1103               "    oic.r.sensor.presence.value = false"
1104           ],
1105           "x-from-ocf": [
1106             "N/A"
1107           ]
1108         }
1109       },
1110       "lightsensor": {
1111         "type": "number",
1112         "description": "Current Illuminance in Lux",
1113         "x-ocf-conversion": {
1114           "x-ocf-alias": "oic.r.sensor.illuminance",
1115           "x-to-ocf": [
1116             "oic.r.sensor.illuminance.illuminance = lightsensor",
1117             "oic.r.sensor.illuminance.range = [0.0, 510.0]"
1118           ],
1119           "x-from-ocf": [
1120             "N/A"
1121           ]
1122         }
1123       },
1124       "temperature": {
1125         "type": "number",
1126         "description": "Current Temperature",
1127         "x-ocf-conversion": {
1128           "x-ocf-alias": "oic.r.temperature",
1129           "x-to-ocf": [
1130             "oic.r.temperature.temperature = temperature",
1131             "oic.r.temperature.units = C",
1132             "oic.r.temperature.range = [0.0, 51.0]"
1133           ],
1134           "x-from-ocf": [
1135             "N/A"
1136           ]
1137         }
1138       }
1139     }
1140   }
1141 },
1142 "type": "object",
1143 "allOf": [
1144   {"$ref": "#/definitions/A5_08_01"}
1145 ],
1146 "required": [ "PIR", "temperature", "lightsensor" ]
1147 }
1148 }
1149

```

1150 8.11 Light, Temperature and Occupancy Sensor EEP A5-08-02

1151 8.11.1 Derived model

1152 The derived model: "A5_08_02".

1153 **8.11.2 Property definition**

1154 Table 27 provides the detailed per Property mapping for "A5_08_02".

1155 **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 oic.r.temperature.units = Coic.r.temperature.range = [0.0, 51.0]	N/A

1156 Table 28 provides the details of the Properties that are part of "A5_08_02".

1157 **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

1158 **8.11.3 Derived model definition**

```

1159 {
1160   "id":
1161   "http://openinterconnect.org/enOceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_02.json#"
1162 ,
1163   "$schema": "http://json-schema.org/draft-04/schema#",
1164   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1165   "title": "Light, Temperature and Occupancy Sensor EEP A5-08-02",
1166   "definitions": {
1167     "A5_08_02": {
1168       "type": "object",
1169       "properties": {
1170         "PIR": {
1171           "type": "number",
1172           "description": "Occupancy",
1173           "x-ocf-conversion": {
1174             "x-ocf-alias": "oic.r.sensor.presence",
1175             "x-to-ocf": [
1176               "if (PIR==0):",
1177               "    oic.r.sensor.presence.value = true",
1178               "else:",
1179               "    oic.r.sensor.presence.value = false"
1180             ],
1181             "x-from-ocf": [
1182               "N/A"
1183             ]
1184           }
1185         },
1186         "lightsensor": {
1187           "type": "number",
1188           "description": "Current Illuminance in Lux",
1189           "x-ocf-conversion": {
1190             "x-ocf-alias": "oic.r.sensor.illuminance",
1191             "x-to-ocf": [
1192               "oic.r.sensor.illuminance.illuminance = lightsensor",
1193               "oic.r.sensor.illuminance.range = [0.0, 1020.0]"
1194             ]

```

```

1195     ],
1196     "x-from-ocf": [
1197       "N/A"
1198     ]
1199   },
1200 },
1201 "temperature": {
1202   "type": "number",
1203   "description": "Current Temperature",
1204   "x-ocf-conversion": {
1205     "x-ocf-alias": "oic.r.temperature",
1206     "x-to-ocf": [
1207       "oic.r.temperature.temperature = temperature",
1208       "oic.r.temperature.units = C",
1209       "oic.r.temperature.range = [0.0, 51.0]"
1210     ],
1211     "x-from-ocf": [
1212       "N/A"
1213     ]
1214   }
1215 }
1216 }
1217 }
1218 }
1219 },
1220 "type": "object",
1221 "allOf": [
1222   {"$ref": "#/definitions/A5_08_02"}
1223 ],
1224 "required": [ "PIR", "temperature", "lightsensor" ]
1225 }
1226 }

```

1227 **8.12 Light, Temperature and Occupancy Sensor EEP A5-08-03**

1228 **8.12.1 Derived model**

1229 The derived model: "A5_08_03".

1230 **8.12.2 Property definition**

1231 Table 29 provides the detailed per Property mapping for "A5_08_03".

1232 **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 = Coic.r.temperature.range = [-30.0, 50.0]	N/A

1233 Table 30 provides the details of the Properties that are part of "A5_08_03".

1234 **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

1235 8.12.3 Derived model definition

```
1236 {
1237   "id":
1238   "http://openinterconnect.org/enocceanmapping/schemas/LightTemperatureOccupancySensor.A5_08_03.json#"
1239   ,
1240   "$schema": "http://json-schema.org/draft-04/schema#",
1241   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1242   "title": "Light, Temperature and Occupancy Sensor EEP A5-08-03",
1243   "definitions": {
1244     "A5_08_03": {
1245       "type": "object",
1246       "properties": {
1247         "PIR": {
1248           "type": "number",
1249           "description": "Occupancy",
1250           "x-ocf-conversion": {
1251             "x-ocf-alias": "oic.r.sensor.presence",
1252             "x-to-ocf": [
1253               "if (PIR==0):",
1254                 "  oic.r.sensor.presence.value = true",
1255               "else:",
1256                 "  oic.r.sensor.presence.value = false"
1257             ],
1258             "x-from-ocf": [
1259               "N/A"
1260             ]
1261           }
1262         },
1263         "lightsensor": {
1264           "type": "number",
1265           "description": "Current Illuminance in Lux",
1266           "x-ocf-conversion": {
1267             "x-ocf-alias": "oic.r.sensor.illuminance",
1268             "x-to-ocf": [
1269               "oic.r.sensor.illuminance.illuminance = lightsensor",
1270               "oic.r.sensor.illuminance.range = [0.0, 1530.0]"
1271             ],
1272             "x-from-ocf": [
1273               "N/A"
1274             ]
1275           }
1276         },
1277         "temperature": {
1278           "type": "number",
1279           "description": "Current Temperature",
1280           "x-ocf-conversion": {
1281             "x-ocf-alias": "oic.r.temperature",
1282             "x-to-ocf": [
1283               "oic.r.temperature.temperature = temperature",
1284               "oic.r.temperature.units = C",
1285               "oic.r.temperature.range = [-30.0, 50.0]"
1286             ],
1287             "x-from-ocf": [
1288               "N/A"
1289             ]
1290           }
1291         }
1292       }
1293     }
1294   }
1295 },
1296 "type": "object",
1297 "allOf": [
1298   {"$ref": "#/definitions/A5_08_03"}
1299 ],
1300 "required": [ "PIR", "temperature", "lightsensor" ]
1301 }
1302 }
1303 }
```

1304 **8.13 Liquid Leakage Detector (Water) EEP F6-05-01**

1305 **8.13.1 Derived model**

1306 The derived model: "F6_05_01".

1307 **8.13.2 Property definition**

1308 Table 31 provides the detailed per Property mapping for "F6_05_01".

1309 **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

1310 Table 32 provides the details of the Properties that are part of "F6_05_01".

1311 **Table 32 – The Properties of "F6_05_01".**

EnOcean Property name	Type	Required	Description
watersensor	number	yes	Water detector

1312 **8.13.3 Derived model definition**

```
1313 {  
1314   "id":  
1315   "http://openinterconnect.org/enOceanmapping/schemas/LiquidLeakageDetectorWater.F6_05_01.json#",  
1316   "$schema": "http://json-schema.org/draft-04/schema#",  
1317   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",  
1318   "title": "Liquid Leakage Detector (Water) EEP F6-05-01",  
1319   "definitions": {  
1320     "F6_05_01": {  
1321       "type": "object",  
1322       "properties": {  
1323         "watersensor": {  
1324           "type": "number",  
1325           "description": "Water detector",  
1326           "x-ocf-conversion": {  
1327             "x-ocf-alias": "oic.r.sensor.water",  
1328             "x-to-ocf": [  
1329               "if (watersensor==17):",  
1330               "  oic.r.sensor.water.value = true",  
1331               "else:",  
1332               "  oic.r.sensor.water.value = false"  
1333             ],  
1334             "x-from-ocf": [  
1335               "N/A"  
1336             ]  
1337           }  
1338         }  
1339       }  
1340     },  
1341     },  
1342     "type": "object",  
1343     "allOf": [  
1344       {"$ref": "#/definitions/F6_05_01"}  
1345     ],  
1346     "required": [ "watersensor"]  
1347   }  
1348 }
```


1349 **8.14 Occupancy Sensor EEP A5-07-01**

1350 **8.14.1 Derived model**

1351 The derived model: "A5_07_01".

1352 **8.14.2 Property definition**

1353 Table 33 provides the detailed per Property mapping for "A5_07_01".

1354 **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

1355 Table 34 provides the details of the Properties that are part of "A5_07_01".

1356 **Table 34 – The Properties of "A5_07_01".**

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1357 **8.14.3 Derived model definition**

```

1358 {
1359   "id": "http://openinterconnect.org/enOceanmapping/schemas/OccupancySensor.A5_07_01.json#",
1360   "$schema": "http://json-schema.org/draft-04/schema#",
1361   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1362   "title": "Occupancy Sensor EEP A5-07-01",
1363   "definitions": {
1364     "A5_07_01": {
1365       "type": "object",
1366       "properties": {
1367         "PIR": {
1368           "type": "number",
1369           "description": "Occupancy",
1370           "x-ocf-conversion": {
1371             "x-ocf-alias": "oic.r.sensor.presence",
1372             "x-to-ocf": [
1373               "if (PIR<128):",
1374                 "    oic.r.sensor.presence.value = false",
1375             "else:",
1376                 "    oic.r.sensor.presence.value = true"
1377             ],
1378             "x-from-ocf": [
1379               "N/A"
1380             ]
1381           }
1382         }
1383       }
1384     }
1385   },
1386   "type": "object",
1387   "allOf": [
1388     { "$ref": "#/definitions/A5_07_01" }
1389   ],
1390   "required": [ "PIR" ]
1391 }
1392

```

1393 **8.15 Occupancy Sensor EEP A5-07-02**

1394 **8.15.1 Derived model**

1395 The derived model: "A5_07_02".

1396 **8.15.2 Property definition**

1397 Table 35 provides the detailed per Property mapping for "A5_07_02".

1398 **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

1399 Table 36 provides the details of the Properties that are part of "A5_07_02".

1400 **Table 36 – The Properties of "A5_07_02".**

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1401 **8.15.3 Derived model definition**

```
1402 {  
1403   "id": "http://openinterconnect.org/enOceanmapping/schemas/OccupancySensor.A5_07_02.json#",  
1404   "$schema": "http://json-schema.org/draft-04/schema#",  
1405   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",  
1406   "title": "Occupancy Sensor EEP A5-07-02",  
1407   "definitions": {  
1408     "A5_07_02": {  
1409       "type": "object",  
1410       "properties": {  
1411         "PIR": {  
1412           "type": "number",  
1413           "description": "Occupancy",  
1414           "x-ocf-conversion": {  
1415             "x-ocf-alias": "oic.r.sensor.presence",  
1416             "x-to-ocf": [  
1417               "if (PIR==0):",  
1418                 "  oic.r.sensor.presence.value = false",  
1419               "else:",  
1420                 "  oic.r.sensor.presence.value = true"  
1421             ],  
1422             "x-from-ocf": [  
1423               "N/A"  
1424             ]  
1425           }  
1426         }  
1427       }  
1428     }  
1429   },  
1430   "type": "object",  
1431   "allOf": [  
1432     {"$ref": "#/definitions/A5_07_02"}  
1433   ],  
1434   "required": [ "PIR"]  
1435 }  
1436
```

1437 **8.16 Occupancy Sensor EEP A5-07-03**

1438 **8.16.1 Derived model**

1439 The derived model: "A5_07_03".

1440 **8.16.2 Property definition**

1441 Table 37 provides the detailed per Property mapping for "A5_07_03".

1442 **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

1443 Table 38 provides the details of the Properties that are part of "A5_07_03".

1444 **Table 38 – The Properties of "A5_07_03".**

EnOcean Property name	Type	Required	Description
PIR	number	yes	Occupancy

1445 **8.16.3 Derived model definition**

```

1446 {
1447   "id": "http://openinterconnect.org/enOceanmapping/schemas/OccupancySensor.A5_07_03.json#",
1448   "$schema": "http://json-schema.org/draft-04/schema#",
1449   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1450   "title": "Occupancy Sensor EEP A5-07-03",
1451   "definitions": {
1452     "A5_07_03": {
1453       "type": "object",
1454       "properties": {
1455         "PIR": {
1456           "type": "number",
1457           "description": "Occupancy",
1458           "x-ocf-conversion": {
1459             "x-ocf-alias": "oic.r.sensor.presence",
1460             "x-to-ocf": [
1461               "if (PIR==0):",
1462               "  oic.r.sensor.presence.value = false",
1463               "else:",
1464               "  oic.r.sensor.presence.value = true"
1465             ],
1466             "x-from-ocf": [
1467               "N/A"
1468             ]
1469           }
1470         }
1471       }
1472     }
1473   },
1474   "type": "object",
1475   "allOf": [
1476     {"$ref": "#/definitions/A5_07_03"}
1477   ],
1478   "required": [ "PIR" ]
1479 }
1480

```

1481 **8.17 Push Button, EEP F6-01-01**

1482 **8.17.1 Derived model**

1483 The derived model: "F6_01_01".

1484 **8.17.2 Property definition**

1485 Table 39 provides the detailed per Property mapping for "F6_01_01".

1486 **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

1487 Table 40 provides the details of the Properties that are part of "F6_01_01".

1488 **Table 40 – The Properties of "F6_01_01".**

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

1489 **8.17.3 Derived model definition**

```
1490 {
1491   "id": "http://openinterconnect.org/enOceanmapping/schemas/PushButton.F6_01_01.json#",
1492   "$schema": "http://json-schema.org/draft-04/schema#",
1493   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1494   "title": "Push Button, EEP F6-01-01",
1495   "definitions": {
1496     "F6_01_01": {
1497       "type": "object",
1498       "properties": {
1499         "PushButton": {
1500           "type": "number",
1501           "description": "Simple Button with Released/Pressed Mechanism",
1502           "x-ocf-conversion": {
1503             "x-ocf-alias": "oic.r.button",
1504             "x-to-ocf": [
1505               "if (PushButton == 1):",
1506               "  oic.r.button.value = !oic.r.button.value"
1507             ],
1508             "x-from-ocf": [
1509               "N/A"
1510             ]
1511           }
1512         }
1513       }
1514     }
1515   },
1516   "type": "object",
1517   "allOf": [
1518     {
1519       "$ref": "#/definitions/F6_01_01"
1520     }
1521   ],
1522   "required": [
1523     "PushButton"
1524   ]
1525 }
1526 }
```

1527 **8.18 Rocker Switch, 2 Rocker EEP F6-02-01**

1528 **8.18.1 Derived model**

1529 The derived model: "F6_02_01".

1530 **8.18.2 Property definition**

1531 Table 41 provides the detailed per Property mapping for "F6_02_01".

1532 **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

1533 Table 42 provides the details of the Properties that are part of "F6_02_01".

1534 **Table 42 – The Properties of "F6_02_01".**

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

1535 **8.18.3 Derived model definition**

```

1536 {
1537   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_01.json#",
1538   "$schema": "http://json-schema.org/draft-04/schema#",
1539   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1540   "title": "Rocker Switch, 2 Rocker EEP F6-02-01",
1541   "definitions": {
1542     "F6_02_01": {
1543       "type": "object",
1544       "properties": {
1545         "Rocker1stAction": {
1546           "type": "number",
1547           "description": "1st action of Rocker",
1548           "x-ocf-conversion": {
1549             "x-ocf-alias": "oic.r.button",
1550             "x-to-ocf": [
1551               "if (Rocker1stAction == 0):",
1552               "  /Button1ResURI/oic.r.button.value = true",
1553               "else if (Rocker1stAction == 1):",
1554               "  /Button1ResURI/oic.r.button.value = false",
1555               "  else if (Rocker1stAction == 2):",
1556               "  /Button2ResURI/oic.r.button.value = true",
1557               "  else if (Rocker1stAction == 3):",
1558               "  /Button2ResURI/oic.r.button.value = false"
1559             ],
1560             "x-from-ocf": [
1561               "N/A"
1562             ]
1563           }
1564         }
1565       }
1566     }
1567   },
1568 }

```

```

1569     "type": "object",
1570     "allof": [
1571       {
1572         "$ref": "#/definitions/F6_02_01"
1573       }
1574     ],
1575     "required": [
1576       "Rocker1stAction"
1577     ]
1578 }

```

1579 8.19 Rocker Switch, 2 Rocker EEP F6-02-02

1580 8.19.1 Derived model

1581 The derived model: "F6_02_02".

1582 8.19.2 Property definition

1583 Table 43 provides the detailed per Property mapping for "F6_02_02".

1584 **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

1585 Table 44 provides the details of the Properties that are part of "F6_02_02".

1586 **Table 44 – The Properties of "F6_02_02".**

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

1587 8.19.3 Derived model definition

```

1588 {
1589   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_02.json#",
1590   "$schema": "http://json-schema.org/draft-04/schema#",
1591   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1592   "title": "Rocker Switch, 2 Rocker EEP F6-02-02",
1593   "definitions": {
1594     "F6_02_02": {
1595       "type": "object",
1596       "properties": {
1597         "Rocker1stAction": {
1598           "type": "number",
1599           "description": "1st action of Rocker",
1600           "x-ocf-conversion": {
1601             "x-ocf-alias": "oic.r.button",
1602             "x-to-ocf": [
1603               "if (Rocker1stAction == 0):",
1604               "  /Button1ResURI/oic.r.button.value = true",
1605               "else if (Rocker1stAction == 1):",
1606               "  /Button1ResURI/oic.r.button.value = false",
1607               "else if (Rocker1stAction == 2):",
1608               "  /Button2ResURI/oic.r.button.value = true",
1609               "else if (Rocker1stAction == 3):",

```

```

1610         "          /Button2ResURI/oic.r.button.value = false"
1611     ],
1612     "x-from-ocf": [
1613         "N/A"
1614     ]
1615 }
1616 }
1617 }
1618 }
1619 }
1620 },
1621 "type": "object",
1622 "allOf": [
1623     {
1624         "$ref": "#/definitions/F6_02_02"
1625     }
1626 ],
1627 "required": [
1628     "Rocker1stAction"
1629 ]
1630 }

```

1631 8.20 Rocker Switch, 2 Rocker EEP F6-02-03

1632 8.20.1 Derived model

1633 The derived model: "F6_02_03".

1634 8.20.2 Property definition

1635 Table 45 provides the detailed per Property mapping for "F6_02_03".

1636 **Table 45 – The Property mapping for "F6_02_03".**

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

1637 Table 46 provides the details of the Properties that are part of "F6_02_03".

1638 **Table 46 – The Properties of "F6_02_03".**

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

1639 8.20.3 Derived model definition

```

1640 {
1641     "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch2Rocker.F6_02_03.json#",
1642     "$schema": "http://json-schema.org/draft-04/schema#",
1643     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1644     "title": "Rocker Switch, 2 Rocker EEP F6-02-03",
1645     "definitions": {
1646         "F6_02_03": {
1647             "type": "object",
1648             "properties": {
1649                 "RockerAction": {
1650                     "type": "number",

```

```

1651         "description": "Action Code of Rocker",
1652         "x-ocf-conversion": {
1653             "x-ocf-alias": "oic.r.button",
1654             "x-to-ocf": [
1655                 "if (RockerAction == 48):",
1656                 "    /Button1ResURI/oic.r.button.value = true",
1657                 "else if (RockerAction == 16):",
1658                 "    /Button1ResURI/oic.r.button.value = false",
1659                 "else if (RockerAction == 112):",
1660                 "    /Button2ResURI/oic.r.button.value = true",
1661                 "else if (RockerAction == 80):",
1662                 "    /Button2ResURI/oic.r.button.value = false"
1663             ],
1664             "x-from-ocf": [
1665                 "N/A"
1666             ]
1667         }
1668     }
1669 }
1670 }
1671 }
1672 },
1673 "type": "object",
1674 "allOf": [
1675     {
1676         "$ref": "#/definitions/F6_02_03"
1677     }
1678 ],
1679 "required": [
1680     "RockerAction"
1681 ]
1682 }

```

1683 **8.21 Rocker Switch, 2 Rocker EEP F6-02-04**

1684 **8.21.1 Derived model**

1685 The derived model: "F6_02_04".

1686 **8.21.2 Property definition**

1687 Table 47 provides the detailed per Property mapping for "F6_02_04".

1688 **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

1689 Table 48 provides the details of the Properties that are part of "F6_02_04".

1690 **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

1691 **8.21.3 Derived model definition**

```

1692 {
1693   "id": "http://openinterconnect.org/enocceanmapping/schemas/RockerSwitch2Rocker.F6_02_04.json#",
1694   "$schema": "http://json-schema.org/draft-04/schema#",
1695   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1696   "title": "Rocker Switch, 2 Rocker EEP F6-02-04",
1697   "definitions": {
1698     "F6_02_04": {
1699       "type": "object",
1700       "properties": {
1701         "AI": {
1702           "type": "number",
1703           "description": "Rocker A State I",
1704           "x-ocf-conversion": {
1705             "x-ocf-alias": "oic.r.button",
1706             "x-to-ocf": [
1707               "if (AI == 1):",
1708               "  /Button1ResURI/oic.r.button.value = true"
1709             ],
1710             "x-from-ocf": [
1711               "N/A"
1712             ]
1713           }
1714         },
1715         "AO": {
1716           "type": "number",
1717           "description": "Rocker A State O",
1718           "x-ocf-conversion": {
1719             "x-ocf-alias": "oic.r.button",
1720             "x-to-ocf": [
1721               "if (AO == 1):",
1722               "  /Button1ResURI/oic.r.button.value = false"
1723             ],
1724             "x-from-ocf": [
1725               "N/A"
1726             ]
1727           }
1728         },
1729         "BI": {
1730           "type": "number",
1731           "description": "Rocker B State I",
1732           "x-ocf-conversion": {
1733             "x-ocf-alias": "oic.r.button",
1734             "x-to-ocf": [
1735               "if (BI == 1):",
1736               "  /Button2ResURI/oic.r.button.value = true"
1737             ],
1738             "x-from-ocf": [
1739               "N/A"
1740             ]
1741           }
1742         },
1743         "BO": {
1744           "type": "number",
1745           "description": "Rocker B State O",
1746           "x-ocf-conversion": {
1747             "x-ocf-alias": "oic.r.button",
1748             "x-to-ocf": [
1749               "if (BO == 1):",
1750               "  /Button2ResURI/oic.r.button.value = false"
1751             ]
1752           }
1753         }
1754       }
1755     }
1756   }

```

```

1755         ],
1756         "x-from-ocf": [
1757             "N/A"
1758         ]
1759     }
1760 }
1761 }
1762 }
1763 }
1764 },
1765 "type": "object",
1766 "allOf": [
1767     {
1768         "$ref": "#/definitions/F6_02_04"
1769     }
1770 ],
1771 "required": [
1772     "AI", "AO", "BI", "BO"
1773 ]
1774 }

```

1775 **8.22 Rocker Switch, 4 Rocker EEP F6-03-01**

1776 **8.22.1 Derived model**

1777 The derived model: "F6_03_01".

1778 **8.22.2 Property definition**

1779 Table 49 provides the detailed per Property mapping for "F6_03_01".

1780 **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): /Button4ResURI/oic.r.button.value = false	N/A

1781 Table 50 provides the details of the Properties that are part of "F6_03_01".

1782 **Table 50 – The Properties of "F6_03_01".**

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

1783 **8.22.3 Derived model definition**

```

1784 {
1785   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch4Rocker.F6_03_01.json#",
1786   "$schema": "http://json-schema.org/draft-04/schema#",
1787   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1788   "title": "Rocker Switch, 4 Rocker EEP F6-03-01",
1789   "definitions": {
1790     "F6_03_01": {
1791       "type": "object",
1792       "properties": {
1793         "Rocker1stAction": {
1794           "type": "number",
1795           "description": "1st action of Rocker",
1796           "x-ocf-conversion": {
1797             "x-ocf-alias": "oic.r.button",
1798             "x-to-ocf": [
1799               "if (Rocker1stAction == 0):",
1800               "  /Button1ResURI/oic.r.button.value = true",
1801               "else if (Rocker1stAction == 1):",
1802               "  /Button1ResURI/oic.r.button.value = false",
1803               "else if (Rocker1stAction == 2):",
1804               "  /Button2ResURI/oic.r.button.value = true",
1805               "else if (Rocker1stAction == 3):",
1806               "  /Button2ResURI/oic.r.button.value = false",
1807               "else if (Rocker1stAction == 4):",
1808               "  /Button3ResURI/oic.r.button.value = true",
1809               "else if (Rocker1stAction == 5):",
1810               "  /Button3ResURI/oic.r.button.value = false",
1811               "else if (Rocker1stAction == 6):",
1812               "  /Button4ResURI/oic.r.button.value = true",
1813               "else if (Rocker1stAction == 7):",
1814               "  /Button4ResURI/oic.r.button.value = false"
1815             ],
1816             "x-from-ocf": [
1817               "N/A"
1818             ]
1819           }
1820         }
1821       }
1822     }
1823   },
1824   "type": "object",
1825   "allOf": [
1826     {
1827       "$ref": "#/definitions/F6_03_01"
1828     }
1829   ],
1830   "required": [
1831     "Rocker1stAction"
1832   ]
1833 }
1834

```

1835 **8.23 Rocker Switch, 4 Rocker EEP F6-03-02**

1836 **8.23.1 Derived model**

1837 The derived model: "F6_03_02".

1838 **8.23.2 Property definition**

1839 Table 51 provides the detailed per Property mapping for "F6_03_02".

1840 **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 ==	N/A

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

1841 Table 52 provides the details of the Properties that are part of "F6_03_02".

1842 **Table 52 – The Properties of "F6_03_02".**

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

1843 **8.23.3 Derived model definition**

```

1844 {
1845   "id": "http://openinterconnect.org/enOceanmapping/schemas/RockerSwitch4Rocker.F6_03_02.json#",
1846   "$schema": "http://json-schema.org/draft-04/schema#",
1847   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1848   "title": "Rocker Switch, 4 Rocker EEP F6-03-02",
1849   "definitions": {
1850     "F6_03_02": {
1851       "type": "object",
1852       "properties": {
1853         "Rocker1stAction": {
1854           "type": "number",
1855           "description": "1st action of Rocker",
1856           "x-ocf-conversion": {
1857             "x-ocf-alias": "oic.r.button",
1858             "x-to-ocf": [
1859               "if (Rocker1stAction == 0):",
1860               "  /Button1ResURI/oic.r.button.value = true",
1861               "else if (Rocker1stAction == 1):",
1862               "  /Button1ResURI/oic.r.button.value = false",
1863               "    else if (Rocker1stAction == 2):",
1864               "  /Button2ResURI/oic.r.button.value = true",
1865               "    else if (Rocker1stAction == 3):",
1866               "  /Button2ResURI/oic.r.button.value = false",
1867               "else if (Rocker1stAction == 4):",
1868               "  /Button3ResURI/oic.r.button.value = true",
1869               "    else if (Rocker1stAction == 5):",
1870               "  /Button3ResURI/oic.r.button.value = false",
1871               "    else if (Rocker1stAction == 6):",
1872               "  /Button4ResURI/oic.r.button.value = true",
1873               "    else if (Rocker1stAction == 7):",
1874               "  /Button4ResURI/oic.r.button.value = false"
1875             ],
1876             "x-from-ocf": [
1877               "N/A"
1878             ]
1879           }
1880         }
1881       }

```

```

1882     }
1883   },
1884 },
1885 "type": "object",
1886 "allOf": [
1887   {
1888     "$ref": "#/definitions/F6_03_02"
1889   }
1890 ],
1891 "required": [
1892   "Rockerl1stAction"
1893 ]
1894 }

```

1895 8.24 Single Input Contact EEP D5-00-01

1896 8.24.1 Derived model

1897 The derived model: "D5_00_01".

1898 8.24.2 Property definition

1899 Table 53 provides the detailed per Property mapping for "D5_00_01".

1900 **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

1901 Table 54 provides the details of the Properties that are part of "D5_00_01".

1902 **Table 54 – The Properties of "D5_00_01".**

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

1903 8.24.3 Derived model definition

```

1904 {
1905   "id": "http://openinterconnect.org/enOceanmapping/schemas/SingleInputContact.D5_00_01.json#",
1906   "$schema": "http://json-schema.org/draft-04/schema#",
1907   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1908   "title": "Single Input Contact EEP D5-00-01",
1909   "definitions": {
1910     "D5_00_01": {
1911       "type": "object",
1912       "properties": {
1913         "contact": {
1914           "type": "number",
1915           "description": "Single Input Contact",
1916           "x-ocf-conversion": {
1917             "x-ocf-alias": "oic.r.sensor.contact",
1918             "x-to-ocf": [
1919               "if (contact==0):",
1920               "  oic.r.sensor.contact.value = true",
1921               "else if (contact==1):",
1922               "  oic.r.sensor.contact.value = false"
1923             ],
1924             "x-from-ocf": [
1925               "N/A"
1926             ]
1927           }
1928         }
1929       }
1930     }
1931   }

```

```

1930     }
1931   },
1932   "type": "object",
1933   "allOf": [
1934     { "$ref": "#/definitions/D5_00_01" }
1935   ],
1936   "required": [ "contact" ]
1937 }
1938

```

1939 **8.25 Smoke Detector EEP F6-05-02**

1940 **8.25.1 Derived model**

1941 The derived model: "F6_05_02".

1942 **8.25.2 Property definition**

1943 Table 55 provides the detailed per Property mapping for "F6_05_02".

1944 **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

1945 Table 56 provides the details of the Properties that are part of "F6_05_02".

1946 **Table 56 – The Properties of "F6_05_02".**

EnOcean Property name	Type	Required	Description
smokestatus	number	yes	Smoke detector

1947 **8.25.3 Derived model definition**

```

1948 {
1949   "id": "http://openinterconnect.org/enOceanmapping/schemas/SmokeDetector.F6_05_02.json#",
1950   "$schema": "http://json-schema.org/draft-04/schema#",
1951   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1952   "title": "Smoke Detector EEP F6-05-02",
1953   "definitions": {
1954     "F6_05_02": {
1955       "type": "object",
1956       "properties": {
1957         "smokestatus": {
1958           "type": "number",
1959           "description": "Smoke detector",
1960           "x-ocf-conversion": {
1961             "x-ocf-alias": "oic.r.sensor.smoke",
1962             "x-to-ocf": [
1963               "if (smokestatus==0):",
1964                 "  oic.r.sensor.smoke.value = false",
1965               "else if (smokestatus==16):",
1966                 "  oic.r.sensor.smoke.value = true"
1967             ],
1968             "x-from-ocf": [
1969               "N/A"
1970             ]
1971           }
1972         }
1973       }
1974     }
1975   },
1976   "type": "object",

```

```

1977     "allOf": [
1978       {"$ref": "#/definitions/F6_05_02"}
1979     ],
1980     "required": [ "smokestatus" ]
1981   }
1982

```

1983 8.26 Temperature and Humidity Sensor EEP A5-04-01

1984 8.26.1 Derived model

1985 The derived model: "A5_04_01".

1986 8.26.2 Property definition

1987 Table 57 provides the detailed per Property mapping for "A5_04_01".

1988 **Table 57 – The Property mapping for "A5_04_01".**

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

1989 Table 58 provides the details of the Properties that are part of "A5_04_01".

1990 **Table 58 – The Properties of "A5_04_01".**

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

1991 8.26.3 Derived model definition

```

1992 {
1993   "id":
1994   "http://openinterconnect.org/enocanmapping/schemas/TemperatureHumiditySensor.A5_04_01.json#",
1995   "$schema": "http://json-schema.org/draft-04/schema#",
1996   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
1997   "title": "Temperature and Humidity Sensor EEP A5-04-01",
1998   "definitions": {
1999     "A5_04_01": {
2000       "type": "object",
2001       "properties": {
2002         "temperature": {
2003           "type": "number",
2004           "description": "Current Temperature",
2005           "x-ocf-conversion": {
2006             "x-ocf-alias": "oic.r.temperature",
2007             "x-to-ocf": [
2008               "oic.r.temperature.temperature = temperature",
2009               "oic.r.temperature.units = C",
2010               "oic.r.temperature.range = [0.0, 40.0]"
2011             ],
2012             "x-from-ocf": [
2013               "N/A"
2014             ]
2015           }
2016         },
2017         "relativeHumidity": {
2018           "type": "number",
2019           "description": "Humidity",
2020           "x-ocf-conversion": {
2021             "x-ocf-alias": "oic.r.humidity",

```

```

2022         "x-to-ocf": [
2023             "oic.r.humidity.humidity = relativeHumidity"
2024         ],
2025         "x-from-ocf": [
2026             "N/A"
2027         ]
2028     }
2029 }
2030 }
2031 }
2032 },
2033 "type": "object",
2034 "allOf": [
2035     {"$ref": "#/definitions/A5_04_01"}
2036 ],
2037 "required": [ "temperature", "relativeHumidity"]
2038 }
2039

```

2040 8.27 Temperature and Humidity Sensor EEP A5-04-02

2041 8.27.1 Derived model

2042 The derived model: "A5_04_02".

2043 8.27.2 Property definition

2044 Table 59 provides the detailed per Property mapping for "A5_04_02".

2045 **Table 59 – The Property mapping for "A5_04_02".**

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

2046 Table 60 provides the details of the Properties that are part of "A5_04_02".

2047 **Table 60 – The Properties of "A5_04_02".**

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

2048 8.27.3 Derived model definition

```

2049 {
2050     "id":
2051     "http://openinterconnect.org/enocanmapping/schemas/TemperatureHumiditySensor.A5_04_02.json#",
2052     "$schema": "http://json-schema.org/draft-04/schema#",
2053     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2054     "title": "Temperature and Humidity Sensor EEP A5-04-02",
2055     "definitions": {
2056         "A5_04_02": {
2057             "type": "object",
2058             "properties": {
2059                 "temperature": {
2060                     "type": "number",
2061                     "description": "Current Temperature",
2062                     "x-ocf-conversion": {
2063                         "x-ocf-alias": "oic.r.temperature",
2064                         "x-to-ocf": [
2065                             "oic.r.temperature.temperature = temperature",
2066                             "oic.r.temperature.units = C",

```



```

2067         "oic.r.temperature.range = [-20.0, 60.0]"
2068     ],
2069     "x-from-ocf": [
2070         "N/A"
2071     ]
2072 }
2073 },
2074 "relativeHumidity": {
2075     "type": "number",
2076     "description": "Humidity",
2077     "x-ocf-conversion": {
2078         "x-ocf-alias": "oic.r.humidity",
2079         "x-to-ocf": [
2080             "oic.r.humidity.humidity = relativeHumidity"
2081         ],
2082         "x-from-ocf": [
2083             "N/A"
2084         ]
2085     }
2086 }
2087 }
2088 }
2089 },
2090 "type": "object",
2091 "allOf": [
2092     {"$ref": "#/definitions/A5_04_02"}
2093 ],
2094 "required": [ "temperature", "relativeHumidity" ]
2095 }
2096

```

2097 8.28 Temperature and Humidity Sensor EEP A5-04-03

2098 8.28.1 Derived model

2099 The derived model: "A5_04_03".

2100 8.28.2 Property definition

2101 Table 61 provides the detailed per Property mapping for "A5_04_03".

2102 **Table 61 – The Property mapping for "A5_04_03".**

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

2103 Table 62 provides the details of the Properties that are part of "A5_04_03".

2104 **Table 62 – The Properties of "A5_04_03".**

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

2105 8.28.3 Derived model definition

```

2106 {
2107     "id":
2108     "http://openinterconnect.org/enOceanmapping/schemas/TemperatureHumiditySensor.A5_04_03.json#",
2109     "$schema": "http://json-schema.org/draft-04/schema#",
2110     "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2111     "title": "Temperature and Humidity Sensor EEP A5-04-03",

```

```

2112 "definitions": {
2113   "A5_04_03": {
2114     "type": "object",
2115     "properties": {
2116       "temperature": {
2117         "type": "number",
2118         "description": "Current Temperature",
2119         "x-ocf-conversion": {
2120           "x-ocf-alias": "oic.r.temperature",
2121           "x-to-ocf": [
2122             "oic.r.temperature.temperature = temperature",
2123             "oic.r.temperature.units = C",
2124             "oic.r.temperature.range = [-20.0, 60.0]"
2125           ],
2126           "x-from-ocf": [
2127             "N/A"
2128           ]
2129         }
2130       },
2131       "relativeHumidity": {
2132         "type": "number",
2133         "description": "Humidity",
2134         "x-ocf-conversion": {
2135           "x-ocf-alias": "oic.r.humidity",
2136           "x-to-ocf": [
2137             "oic.r.humidity.humidity = relativeHumidity"
2138           ],
2139           "x-from-ocf": [
2140             "N/A"
2141           ]
2142         }
2143       }
2144     }
2145   }
2146 },
2147 "type": "object",
2148 "allOf": [
2149   {"$ref": "#/definitions/A5_04_03"}
2150 ],
2151 "required": [ "temperature", "relativeHumidity" ]
2152 }
2153

```

2154 **8.29 Temperature Sensor EEP A5-02-01**

2155 **8.29.1 Derived model**

2156 The derived model: "A5_02_01".

2157 **8.29.2 Property definition**

2158 Table 63 provides the detailed per Property mapping for "A5_02_01".

2159 **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, 60.0]	N/A

2160 Table 64 provides the details of the Properties that are part of "A5_02_01".

2161

Table 64 – The Properties of "A5_02_01".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2162 **8.29.3 Derived model definition**

```

2163 {
2164   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_01.json#",
2165   "$schema": "http://json-schema.org/draft-04/schema#",
2166   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2167   "title": "Temperature Sensor EEP A5-02-01",
2168   "definitions": {
2169     "A5_02_01": {
2170       "type": "object",
2171       "properties": {
2172         "temperature": {
2173           "type": "number",
2174           "description": "Current Temperature",
2175           "x-ocf-conversion": {
2176             "x-ocf-alias": "oic.r.temperature",
2177             "x-to-ocf": [
2178               "oic.r.temperature.temperature = temperature",
2179               "oic.r.temperature.units = C",
2180               "oic.r.temperature.range = [-40.0, 0.0]"
2181             ],
2182             "x-from-ocf": [
2183               "N/A"
2184             ]
2185           }
2186         }
2187       }
2188     }
2189   },
2190   "type": "object",
2191   "allOf": [
2192     {"$ref": "#/definitions/A5_02_01"}
2193   ],
2194   "required": [ "temperature" ]
2195 }
2196

```

2197 **8.30 Temperature Sensor EEP A5-02-02**

2198 **8.30.1 Derived model**

2199 The derived model: "A5_02_02".

2200 **8.30.2 Property definition**

2201 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 = Coic.r.temperature.range = [-30.0, 10.0]	N/A

2203 Table 66 provides the details of the Properties that are part of "A5_02_02".

2204

Table 66 – The Properties of "A5_02_02".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2205

8.30.3 Derived model definition

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```
{
  "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"
            ]
          }
        }
      }
    }
  }
}
```

2240

8.31 Temperature Sensor EEP A5-02-03

2241

8.31.1 Derived model

2242

The derived model: "A5_02_03".

2243

8.31.2 Property definition

2244

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

2245

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 = Coic.r.temperature.range = [- 20.0, 20.0]	N/A

2246

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

2247

Table 68 – The Properties of "A5_02_03".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2248 **8.31.3 Derived model definition**

```

2249 {
2250   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_03.json#",
2251   "$schema": "http://json-schema.org/draft-04/schema#",
2252   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2253   "title": "Temperature Sensor EEP A5-02-03",
2254   "definitions": {
2255     "A5_02_03": {
2256       "type": "object",
2257       "properties": {
2258         "temperature": {
2259           "type": "number",
2260           "description": "Current Temperature",
2261           "x-ocf-conversion": {
2262             "x-ocf-alias": "oic.r.temperature",
2263             "x-to-ocf": [
2264               "oic.r.temperature.temperature = temperature",
2265               "oic.r.temperature.units = C",
2266               "oic.r.temperature.range = [-20.0, 20.0]"
2267             ],
2268             "x-from-ocf": [
2269               "N/A"
2270             ]
2271           }
2272         }
2273       }
2274     },
2275     "type": "object",
2276     "allOf": [
2277       { "$ref": "#/definitions/A5_02_03" }
2278     ],
2279     "required": [ "temperature" ]
2280   }
2281 }
2282

```

2283 **8.32 Temperature Sensor EEP A5-02-04**

2284 **8.32.1 Derived model**

2285 The derived model: "A5_02_04".

2286 **8.32.2 Property definition**

2287 Table 69 provides the detailed per Property mapping for "A5_02_04".

Table 69 – The Property mapping for "A5_02_04".

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

2289 Table 70 provides the details of the Properties that are part of "A5_02_04".

2290

Table 70 – The Properties of "A5_02_04".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2291 **8.32.3 Derived model definition**

```

2292 {
2293   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_04.json#",
2294   "$schema": "http://json-schema.org/draft-04/schema#",
2295   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2296   "title": "Temperature Sensor EEP A5-02-04",
2297   "definitions": {
2298     "A5_02_04": {
2299       "type": "object",
2300       "properties": {
2301         "temperature": {
2302           "type": "number",
2303           "description": "Current Temperature",
2304           "x-ocf-conversion": {
2305             "x-ocf-alias": "oic.r.temperature",
2306             "x-to-ocf": [
2307               "oic.r.temperature.temperature = temperature",
2308               "oic.r.temperature.units = C",
2309               "oic.r.temperature.range = [-10.0, 30.0]"
2310             ],
2311             "x-from-ocf": [
2312               "N/A"
2313             ]
2314           }
2315         }
2316       }
2317     }
2318   },
2319   "type": "object",
2320   "allOf": [
2321     {"$ref": "#/definitions/A5_02_04"}
2322   ],
2323   "required": [ "temperature" ]
2324 }
2325

```

2326 **8.33 Temperature Sensor EEP A5-02-05**

2327 **8.33.1 Derived model**

2328 The derived model: "A5_02_05".

2329 **8.33.2 Property definition**

2330 Table 71 provides the detailed per Property mapping for "A5_02_05".

2331 **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 = Coic.r.temperature.range = [0.0, 40.0]	N/A

2332 Table 72 provides the details of the Properties that are part of "A5_02_05".

2333

Table 72 – The Properties of "A5_02_05".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2334 **8.33.3 Derived model definition**

```

2335 {
2336   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_05.json#",
2337   "$schema": "http://json-schema.org/draft-04/schema#",
2338   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2339   "title": "Temperature Sensor EEP A5-02-05",
2340   "definitions": {
2341     "A5_02_05": {
2342       "type": "object",
2343       "properties": {
2344         "temperature": {
2345           "type": "number",
2346           "description": "Current Temperature",
2347           "x-ocf-conversion": {
2348             "x-ocf-alias": "oic.r.temperature",
2349             "x-to-ocf": [
2350               "oic.r.temperature.temperature = temperature",
2351               "oic.r.temperature.units = C",
2352               "oic.r.temperature.range = [0.0, 40.0]"
2353             ],
2354             "x-from-ocf": [
2355               "N/A"
2356             ]
2357           }
2358         }
2359       }
2360     }
2361   },
2362   "type": "object",
2363   "allOf": [
2364     {"$ref": "#/definitions/A5_02_05"}
2365   ],
2366   "required": [ "temperature" ]
2367 }
2368

```

2369 **8.34 Temperature Sensor EEP A5-02-06**

2370 **8.34.1 Derived model**

2371 The derived model: "A5_02_06".

2372 **8.34.2 Property definition**

2373 Table 73 provides the detailed per Property mapping for "A5_02_06".

2374 **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 = Coic.r.temperature.range = [10.0, 50.0]	N/A

2375 Table 74 provides the details of the Properties that are part of "A5_02_06".

2376

Table 74 – The Properties of "A5_02_06".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2377

8.34.3 Derived model definition

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```
{
  "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" ]
}
```

2412

8.35 Temperature Sensor EEP A5-02-07

2413

8.35.1 Derived model

2414

The derived model: "A5_02_07".

2415

8.35.2 Property definition

2416

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

2417

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 = Coic.r.temperature.range = [20.0, 60.0]	N/A

2418

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

2419

Table 76 – The Properties of "A5_02_07".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2420

8.35.3 Derived model definition

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

2455

8.36 Temperature Sensor EEP A5-02-08

2456

8.36.1 Derived model

2457

The derived model: "A5_02_08".

2458

8.36.2 Property definition

2459

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

2460

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 = Coic.r.temperature.range = [30.0, 70.0]	N/A

2461

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

2462

Table 78 – The Properties of "A5_02_08".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2463 **8.36.3 Derived model definition**

```

2464 {
2465   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_08.json#",
2466   "$schema": "http://json-schema.org/draft-04/schema#",
2467   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2468   "title": "Temperature Sensor EEP A5-02-08",
2469   "definitions": {
2470     "A5_02_08": {
2471       "type": "object",
2472       "properties": {
2473         "temperature": {
2474           "type": "number",
2475           "description": "Current Temperature",
2476           "x-ocf-conversion": {
2477             "x-ocf-alias": "oic.r.temperature",
2478             "x-to-ocf": [
2479               "oic.r.temperature.temperature = temperature",
2480               "oic.r.temperature.units = C",
2481               "oic.r.temperature.range = [30.0, 70.0]"
2482             ],
2483             "x-from-ocf": [
2484               "N/A"
2485             ]
2486           }
2487         }
2488       }
2489     }
2490   },
2491   "type": "object",
2492   "allOf": [
2493     { "$ref": "#/definitions/A5_02_08" }
2494   ],
2495   "required": [ "temperature" ]
2496 }
2497

```

2498 **8.37 Temperature Sensor EEP A5-02-09**

2499 **8.37.1 Derived model**

2500 The derived model: "A5_02_09".

2501 **8.37.2 Property definition**

2502 Table 79 provides the detailed per Property mapping for "A5_02_09".

Table 79 – The Property mapping for "A5_02_09".

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

2504 Table 80 provides the details of the Properties that are part of "A5_02_09".

2505

Table 80 – The Properties of "A5_02_09".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2506

8.37.3 Derived model definition

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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"
            ]
          }
        }
      }
    }
  }
}
```

2541

8.38 Temperature Sensor EEP A5-02-0A

2542

8.38.1 Derived model

2543

The derived model: "A5_02_0A".

2544

8.38.2 Property definition

2545

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

2546

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 = temperature = Coic.r.temperature.range = [50.0, 90.0]	N/A

2547

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

2548

Table 82 – The Properties of "A5_02_0A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2549

8.38.3 Derived model definition

2550
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2583

```
{
  "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" ]
}
```

2584

8.39 Temperature Sensor EEP A5-02-0B

2585

8.39.1 Derived model

2586

The derived model: "A5_02_0B".

2587

8.39.2 Property definition

2588

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

2589

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 = Coic.r.temperature.range = [60.0, 100.0]	N/A

2590

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

2591

Table 84 – The Properties of "A5_02_0B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2592 **8.39.3 Derived model definition**

```

2593 {
2594   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_0B.json#",
2595   "$schema": "http://json-schema.org/draft-04/schema#",
2596   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2597   "title": "Temperature Sensor EEP A5-02-0B",
2598   "definitions": {
2599     "A5_02_0B": {
2600       "type": "object",
2601       "properties": {
2602         "temperature": {
2603           "type": "number",
2604           "description": "Current Temperature",
2605           "x-ocf-conversion": {
2606             "x-ocf-alias": "oic.r.temperature",
2607             "x-to-ocf": [
2608               "oic.r.temperature.temperature = temperature",
2609               "oic.r.temperature.units = C",
2610               "oic.r.temperature.range = [60.0, 100.0]"
2611             ],
2612             "x-from-ocf": [
2613               "N/A"
2614             ]
2615           }
2616         }
2617       }
2618     }
2619   },
2620   "type": "object",
2621   "allOf": [
2622     {"$ref": "#/definitions/A5_02_0B"}
2623   ],
2624   "required": [ "temperature" ]
2625 }
2626

```

2627 **8.40 Temperature Sensor EEP A5-02-10**

2628 **8.40.1 Derived model**

2629 The derived model: "A5_02_10".

2630 **8.40.2 Property definition**

2631 Table 85 provides the detailed per Property mapping for "A5_02_10".

Table 85 – The Property mapping for "A5_02_10".

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

2633 Table 86 provides the details of the Properties that are part of "A5_02_10".

2634

Table 86 – The Properties of "A5_02_10".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2635 **8.40.3 Derived model definition**

```

2636 {
2637   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_10.json#",
2638   "$schema": "http://json-schema.org/draft-04/schema#",
2639   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2640   "title": "Temperature Sensor EEP A5-02-10",
2641   "definitions": {
2642     "A5_02_10": {
2643       "type": "object",
2644       "properties": {
2645         "temperature": {
2646           "type": "number",
2647           "description": "Current Temperature",
2648           "x-ocf-conversion": {
2649             "x-ocf-alias": "oic.r.temperature",
2650             "x-to-ocf": [
2651               "oic.r.temperature.temperature = temperature",
2652               "oic.r.temperature.units = C",
2653               "oic.r.temperature.range = [-60.0, 20.0]"
2654             ],
2655             "x-from-ocf": [
2656               "N/A"
2657             ]
2658           }
2659         }
2660       }
2661     },
2662     "type": "object",
2663     "allOf": [
2664       { "$ref": "#/definitions/A5_02_10" }
2665     ],
2666     "required": [ "temperature" ]
2667   }
2668 }
2669 
```

2670 **8.41 Temperature Sensor EEP A5-02-11**

2671 **8.41.1 Derived model**

2672 The derived model: "A5_02_11".

2673 **8.41.2 Property definition**

2674 Table 87 provides the detailed per Property mapping for "A5_02_11".

2675 **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 = Coic.r.temperature.range = [-50.0, 30.0]	N/A

2676 Table 88 provides the details of the Properties that are part of "A5_02_11".

2677

Table 88 – The Properties of "A5_02_11".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2678 **8.41.3 Derived model definition**

```

2679 {
2680   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_11.json#",
2681   "$schema": "http://json-schema.org/draft-04/schema#",
2682   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2683   "title": "Temperature Sensor EEP A5-02-11",
2684   "definitions": {
2685     "A5_02_11": {
2686       "type": "object",
2687       "properties": {
2688         "temperature": {
2689           "type": "number",
2690           "description": "Current Temperature",
2691           "x-ocf-conversion": {
2692             "x-ocf-alias": "oic.r.temperature",
2693             "x-to-ocf": [
2694               "oic.r.temperature.temperature = temperature",
2695               "oic.r.temperature.units = C",
2696               "oic.r.temperature.range = [-50.0, 30.0]"
2697             ],
2698             "x-from-ocf": [
2699               "N/A"
2700             ]
2701           }
2702         }
2703       }
2704     }
2705   },
2706   "type": "object",
2707   "allOf": [
2708     {"$ref": "#/definitions/A5_02_11"}
2709   ],
2710   "required": [ "temperature" ]
2711 }
2712

```

2713 **8.42 Temperature Sensor EEP A5-02-12**

2714 **8.42.1 Derived model**

2715 The derived model: "A5_02_12".

2716 **8.42.2 Property definition**

2717 Table 89 provides the detailed per Property mapping for "A5_02_12".

Table 89 – The Property mapping for "A5_02_12".

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

2719 Table 90 provides the details of the Properties that are part of "A5_02_12".

2720

Table 90 – The Properties of "A5_02_12".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2721 **8.42.3 Derived model definition**

```

2722 {
2723   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_12.json#",
2724   "$schema": "http://json-schema.org/draft-04/schema#",
2725   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2726   "title": "Temperature Sensor EEP A5-02-12",
2727   "definitions": {
2728     "A5_02_12": {
2729       "type": "object",
2730       "properties": {
2731         "temperature": {
2732           "type": "number",
2733           "description": "Current Temperature",
2734           "x-ocf-conversion": {
2735             "x-ocf-alias": "oic.r.temperature",
2736             "x-to-ocf": [
2737               "oic.r.temperature.temperature = temperature",
2738               "oic.r.temperature.units = C",
2739               "oic.r.temperature.range = [-40.0, 40.0]"
2740             ],
2741             "x-from-ocf": [
2742               "N/A"
2743             ]
2744           }
2745         }
2746       }
2747     }
2748   },
2749   "type": "object",
2750   "allOf": [
2751     {"$ref": "#/definitions/A5_02_12"}
2752   ],
2753   "required": [ "temperature" ]
2754 }
2755 
```

2756 **8.43 Temperature Sensor EEP A5-02-13**

2757 **8.43.1 Derived model**

2758 The derived model: "A5_02_13".

2759 **8.43.2 Property definition**

2760 Table 91 provides the detailed per Property mapping for "A5_02_13".

2761 **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 = Coic.r.temperature.range = [-30.0, 50.0]	N/A

2762 Table 92 provides the details of the Properties that are part of "A5_02_13".

2763

Table 92 – The Properties of "A5_02_13".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2764

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"
            ]
          }
        }
      }
    }
  }
}
```

2799

8.44 Temperature Sensor EEP A5-02-14

2800

8.44.1 Derived model

2801

The derived model: "A5_02_14".

2802

8.44.2 Property definition

2803

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

2804

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

2805

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

2806

Table 94 – The Properties of "A5_02_14".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2807 **8.44.3 Derived model definition**

```

2808 {
2809   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_14.json#",
2810   "$schema": "http://json-schema.org/draft-04/schema#",
2811   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2812   "title": "Temperature Sensor EEP A5-02-14",
2813   "definitions": {
2814     "A5_02_14": {
2815       "type": "object",
2816       "properties": {
2817         "temperature": {
2818           "type": "number",
2819           "description": "Current Temperature",
2820           "x-ocf-conversion": {
2821             "x-ocf-alias": "oic.r.temperature",
2822             "x-to-ocf": [
2823               "oic.r.temperature.temperature = temperature",
2824               "oic.r.temperature.units = C",
2825               "oic.r.temperature.range = [-20.0, 60.0]"
2826             ],
2827             "x-from-ocf": [
2828               "N/A"
2829             ]
2830           }
2831         }
2832       }
2833     }
2834   },
2835   "type": "object",
2836   "allOf": [
2837     {"$ref": "#/definitions/A5_02_14"}
2838   ],
2839   "required": [ "temperature" ]
2840 }
2841

```

2842 **8.45 Temperature Sensor EEP A5-02-15**

2843 **8.45.1 Derived model**

2844 The derived model: "A5_02_15".

2845 **8.45.2 Property definition**

2846 Table 95 provides the detailed per Property mapping for "A5_02_15".

2847 **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 = Coic.r.temperature.range = [-10.0, 70.0]	N/A

2848 Table 96 provides the details of the Properties that are part of "A5_02_15".

2849

Table 96 – The Properties of "A5_02_15".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2850

8.45.3 Derived model definition

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

2885

8.46 Temperature Sensor EEP A5-02-16

2886

8.46.1 Derived model

2887

The derived model: "A5_02_16".

2888

8.46.2 Property definition

2889

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

2890

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

2891

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

2892

Table 98 – The Properties of "A5_02_16".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2893 **8.46.3 Derived model definition**

```

2894 {
2895   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_16.json#",
2896   "$schema": "http://json-schema.org/draft-04/schema#",
2897   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
2898   "title": "Temperature Sensor EEP A5-02-16",
2899   "definitions": {
2900     "A5_02_16": {
2901       "type": "object",
2902       "properties": {
2903         "temperature": {
2904           "type": "number",
2905           "description": "Current Temperature",
2906           "x-ocf-conversion": {
2907             "x-ocf-alias": "oic.r.temperature",
2908             "x-to-ocf": [
2909               "oic.r.temperature.temperature = temperature",
2910               "oic.r.temperature.units = C",
2911               "oic.r.temperature.range = [0.0, 80.0]"
2912             ],
2913             "x-from-ocf": [
2914               "N/A"
2915             ]
2916           }
2917         }
2918       }
2919     }
2920   },
2921   "type": "object",
2922   "allOf": [
2923     {"$ref": "#/definitions/A5_02_16"}
2924   ],
2925   "required": [ "temperature" ]
2926 }
2927

```

2928 **8.47 Temperature Sensor EEP A5-02-17**

2929 **8.47.1 Derived model**

2930 The derived model: "A5_02_17".

2931 **8.47.2 Property definition**

2932 Table 99 provides the detailed per Property mapping for "A5_02_17".

Table 99 – The Property mapping for "A5_02_17".

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

2934 Table 100 provides the details of the Properties that are part of "A5_02_17".

2935

Table 100 – The Properties of "A5_02_17".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2936

8.47.3 Derived model definition

2937
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2958
2959
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2970

```
{
  "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"
            ]
          }
        }
      }
    }
  }
}
```

2971

8.48 Temperature Sensor EEP A5-02-18

2972

8.48.1 Derived model

2973

The derived model: "A5_02_18".

2974

8.48.2 Property definition

2975

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

2976

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 = Coic.r.temperature.range = [20.0, 100.0]	N/A

2977

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

2978

Table 102 – The Properties of "A5_02_18".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

2979

8.48.3 Derived model definition

2980
2981
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2998
2999
3000
3001
3002
3003
3004
3005
3006
3007
3008
3009
3010
3011
3012
3013

```
{
  "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" ]
}
```

3014

8.49 Temperature Sensor EEP A5-02-19

3015

8.49.1 Derived model

3016

The derived model: "A5_02_19".

3017

8.49.2 Property definition

3018

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

3019

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 = Coic.r.temperature.range = [30.0, 110.0]	N/A

3020

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

3021

Table 104 – The Properties of "A5_02_19".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3022 **8.49.3 Derived model definition**

```

3023 {
3024   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_19.json#",
3025   "$schema": "http://json-schema.org/draft-04/schema#",
3026   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3027   "title": "Temperature Sensor EEP A5-02-19",
3028   "definitions": {
3029     "A5_02_19": {
3030       "type": "object",
3031       "properties": {
3032         "temperature": {
3033           "type": "number",
3034           "description": "Current Temperature",
3035           "x-ocf-conversion": {
3036             "x-ocf-alias": "oic.r.temperature",
3037             "x-to-ocf": [
3038               "oic.r.temperature.temperature = temperature",
3039               "oic.r.temperature.units = C",
3040               "oic.r.temperature.range = [30.0, 110.0]"
3041             ],
3042             "x-from-ocf": [
3043               "N/A"
3044             ]
3045           }
3046         }
3047       }
3048     }
3049   },
3050   "type": "object",
3051   "allOf": [
3052     {"$ref": "#/definitions/A5_02_19"}
3053   ],
3054   "required": [ "temperature" ]
3055 }
3056

```

3057 **8.50 Temperature Sensor EEP A5-02-1A**

3058 **8.50.1 Derived model**

3059 The derived model: "A5_02_1A".

3060 **8.50.2 Property definition**

3061 Table 105 provides the detailed per Property mapping for "A5_02_1A".

Table 105 – The Property mapping for "A5_02_1A".

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

3063 Table 106 provides the details of the Properties that are part of "A5_02_1A".

3064

Table 106 – The Properties of "A5_02_1A".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3065 **8.50.3 Derived model definition**

```

3066 {
3067   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_1A.json#",
3068   "$schema": "http://json-schema.org/draft-04/schema#",
3069   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3070   "title": "Temperature Sensor EEP A5-02-1A",
3071   "definitions": {
3072     "A5_02_1A": {
3073       "type": "object",
3074       "properties": {
3075         "temperature": {
3076           "type": "number",
3077           "description": "Current Temperature",
3078           "x-ocf-conversion": {
3079             "x-ocf-alias": "oic.r.temperature",
3080             "x-to-ocf": [
3081               "oic.r.temperature.temperature = temperature",
3082               "oic.r.temperature.units = C",
3083               "oic.r.temperature.range = [40.0, 120.0]"
3084             ],
3085             "x-from-ocf": [
3086               "N/A"
3087             ]
3088           }
3089         }
3090       }
3091     }
3092   },
3093   "type": "object",
3094   "allOf": [
3095     {"$ref": "#/definitions/A5_02_1A"}
3096   ],
3097   "required": [ "temperature" ]
3098 }
3099

```

3100 **8.51 Temperature Sensor EEP A5-02-1B**

3101 **8.51.1 Derived model**

3102 The derived model: "A5_02_1B".

3103 **8.51.2 Property definition**

3104 Table 107 provides the detailed per Property mapping for "A5_02_1B".

Table 107 – The Property mapping for "A5_02_1B".

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

3106 Table 108 provides the details of the Properties that are part of "A5_02_1B".

3107

Table 108 – The Properties of "A5_02_1B".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3108 **8.51.3 Derived model definition**

```

3109 {
3110   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_1B.json#",
3111   "$schema": "http://json-schema.org/draft-04/schema#",
3112   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3113   "title": "Temperature Sensor EEP A5-02-1B",
3114   "definitions": {
3115     "A5_02_1B": {
3116       "type": "object",
3117       "properties": {
3118         "temperature": {
3119           "type": "number",
3120           "description": "Current Temperature",
3121           "x-ocf-conversion": {
3122             "x-ocf-alias": "oic.r.temperature",
3123             "x-to-ocf": [
3124               "oic.r.temperature.temperature = temperature",
3125               "oic.r.temperature.units = C",
3126               "oic.r.temperature.range = [50.0, 130.0]"
3127             ],
3128             "x-from-ocf": [
3129               "N/A"
3130             ]
3131           }
3132         }
3133       }
3134     },
3135     "type": "object",
3136     "allOf": [
3137       { "$ref": "#/definitions/A5_02_1B" }
3138     ],
3139     "required": [ "temperature" ]
3140   }
3141 }
3142

```

3143 **8.52 Temperature Sensor EEP A5-02-20**

3144 **8.52.1 Derived model**

3145 The derived model: "A5_02_20".

3146 **8.52.2 Property definition**

3147 Table 109 provides the detailed per Property mapping for "A5_02_20".

Table 109 – The Property mapping for "A5_02_20".

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

3149 Table 110 provides the details of the Properties that are part of "A5_02_20".

3150

Table 110 – The Properties of "A5_02_20".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3151 **8.52.3 Derived model definition**

```

3152 {
3153   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_20.json#",
3154   "$schema": "http://json-schema.org/draft-04/schema#",
3155   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3156   "title": "Temperature Sensor EEP A5-02-20",
3157   "definitions": {
3158     "A5_02_20": {
3159       "type": "object",
3160       "properties": {
3161         "temperature": {
3162           "type": "number",
3163           "description": "Current Temperature",
3164           "x-ocf-conversion": {
3165             "x-ocf-alias": "oic.r.temperature",
3166             "x-to-ocf": [
3167               "oic.r.temperature.temperature = temperature",
3168               "oic.r.temperature.units = C",
3169               "oic.r.temperature.range = [-10.0, 41.2]"
3170             ],
3171             "x-from-ocf": [
3172               "N/A"
3173             ]
3174           }
3175         }
3176       }
3177     },
3178     "type": "object",
3179     "allOf": [
3180       { "$ref": "#/definitions/A5_02_20" }
3181     ],
3182     "required": [ "temperature" ]
3183   }
3184 }
3185

```

3186 **8.53 Temperature Sensor EEP A5-02-30**

3187 **8.53.1 Derived model**

3188 The derived model: "A5_02_30".

3189 **8.53.2 Property definition**

3190 Table 111 provides the detailed per Property mapping for "A5_02_30".

Table 111 – The Property mapping for "A5_02_30".

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

3192 Table 112 provides the details of the Properties that are part of "A5_02_30".

3193

Table 112 – The Properties of "A5_02_30".

EnOcean Property name	Type	Required	Description
temperature	number	yes	Current Temperature

3194

8.53.3 Derived model definition

3195

```

3196 {
3197   "id": "http://openinterconnect.org/enOceanmapping/schemas/TemperatureSensor.A5_02_30.json#",
3198   "$schema": "http://json-schema.org/draft-04/schema#",
3199   "description": "Copyright (c) 2019 Open Connectivity Foundation, Inc. All rights reserved.",
3200   "title": "Temperature Sensor EEP A5-02-30",
3201   "definitions": {
3202     "A5_02_30": {
3203       "type": "object",
3204       "properties": {
3205         "temperature": {
3206           "type": "number",
3207           "description": "Current Temperature",
3208           "x-ocf-conversion": {
3209             "x-ocf-alias": "oic.r.temperature",
3210             "x-to-ocf": [
3211               "oic.r.temperature.temperature = temperature",
3212               "oic.r.temperature.units = C",
3213               "oic.r.temperature.range = [-40.0, 62.3]"
3214             ],
3215             "x-from-ocf": [
3216               "N/A"
3217             ]
3218           }
3219         }
3220       }
3221     },
3222     "type": "object",
3223     "allOf": [
3224       { "$ref": "#/definitions/A5_02_30" }
3225     ],
3226     "required": [ "temperature" ]
3227   }
3228 }

```

3229

3230