

## EnOcean Equipment Profiles

### REVISION HISTORY

Ver.	Editor	Change	Date
2.6.8	NM	Last xml edition of the EEP-Specification	Dec 31, 2017

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## System Specification



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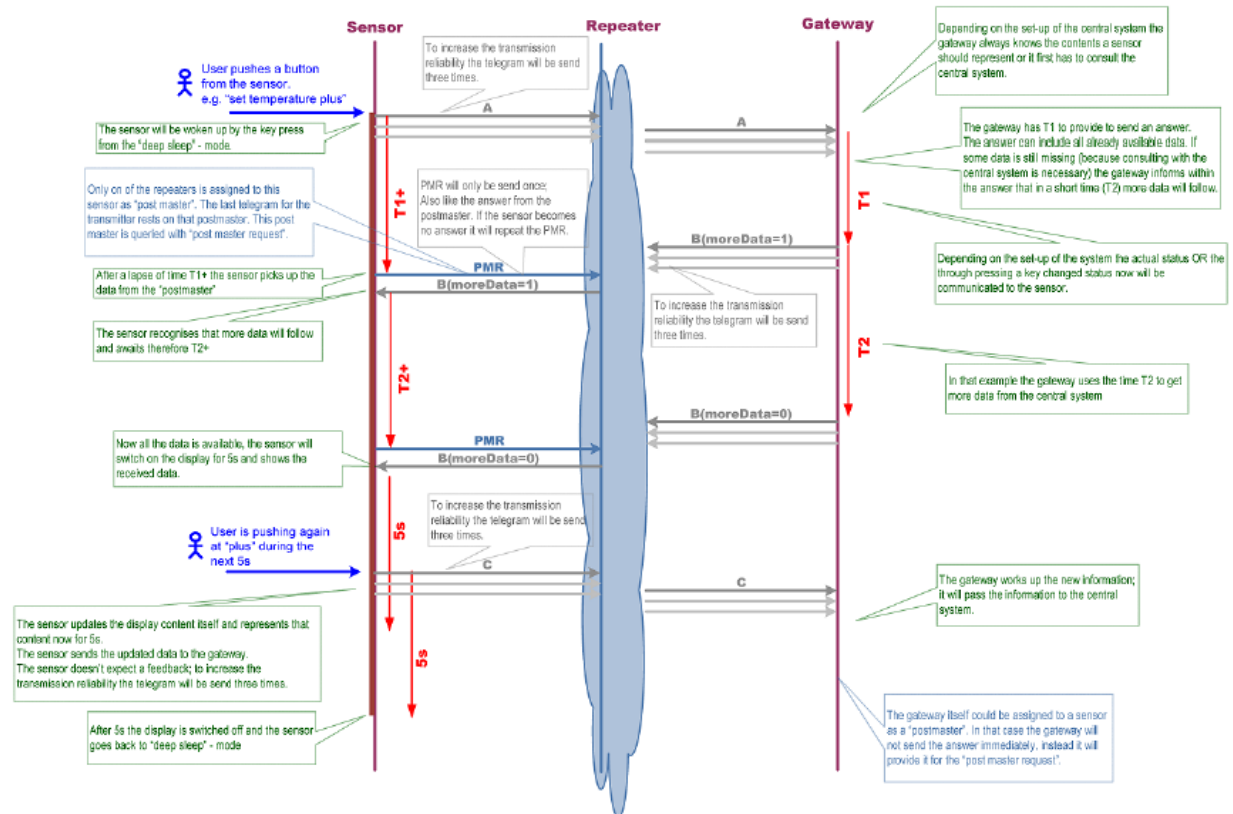
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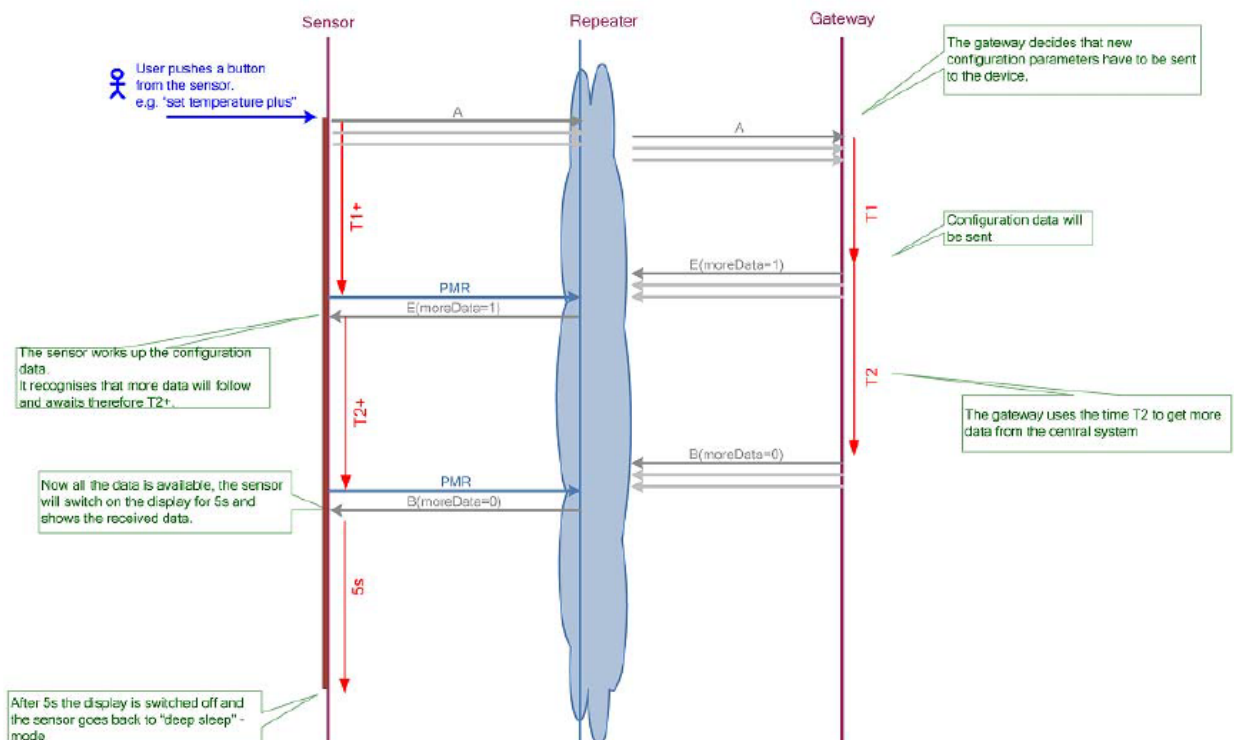


# System Specification

## Use Case: User Interaction



## Use Case: User Interaction including transfer of configuration data



# System Specification

<b>RORG</b>	D2	<b>VLD Telegram</b>
<b>FUNC</b>	00	Room Control Panel (RCP)
<b>TYPE</b>	01	RCP with Temperature Measurement and Display (BI-DIR)

Submitter: Fr. Sauter AG

Note: EEP Release 2.1, 2.5, and 2.6 reflected a wrong byte-order for all messages of this EEP!

Example Message Type A:

Instead of DB\_1 = 0x01 DB\_0 = 0x81 (which is correct for KP=1 and CV=1)

by mistake DB\_1 = 0x81 DB\_0 = 0x11 (which is wrong) was printed.

We apologize for the mistake.

## Message type A / ID 01 (First User Action on RCP)

Direction: Sensor -> Gateway

Transaction Response: Message Type B or Type E

Chaining: No

Timing: T1+ = 170ms

### Message A / ID 01

Original Identifier:

	Data[0]								Data[1]							
	DB_1								DB_0							
DB_1.BIT_7 ← 0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Bit Offset: 0 → 15	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
									MI				CV			
													KP			

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	5	Not Used (= 0)					
5	3	MsgId	MI	Message Id; 0x01	Enum: 1: Message Id		
8	1	ConfigValid	CV		Enum: Configuration data not valid (e.g. never received 0x00: message of type E) Configuration data valid 0x01:		
9	2	Not Used (= 0)					
11	5	User Action	KP		Enum: 0x00: not used 0x01: Presence 0x02: Temperature Set Point "down" or "—" 0x03: not used 0x04: not used 0x05: Temperature Set Point "up" or "+" 0x06: Fan 0x07...0x1F: Not Used		

# System Specification

## Message Type B / ID 02 (Display Content)

Direction: Gateway -> Sensor

Reply to Message Type A

Response: None

Chaining: Up to 2 messages per chain

Timing: T2+ = 300ms

### Message B / ID 02

Original Identifier:	Data[0]	Data[1]	Data[2]	Data[3]	Data[4]
	DB_4	DB_3	DB_2	DB_1	DB_0
DB_4.BIT_7 ← 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Bit Offset: 0 → 39	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23	24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39
	M F MD MI	PR TA	7 ... ZA ... 0 15 ... ZA ... 8		Se Sd Sc Sb Sa

### IMPORTANT NOTE:

The symbols Sa, Sb, Sc, Sd, Se are optional. One or more of those symbols are available on the display only if the manufacturer of a RCP implements them in a specific design. Thus, they are NOT mandatory for a RCP in order to comply with this EEP.

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	1	Fan manual	M		Enum: 0: Auto 1: Fan manual		
1	3	Fan	F		Enum: 0x00: Do not display 0x01: Speed Level 0 0x02: Speed Level 1 0x03: Speed Level 2 0x04: Speed Level 3 0x05...0x07: not used		
4	1	MoreData	MD		Enum: 0x00: no more data 0x01: more data will follow after T2+		
5	3	MsgId	MI	Message Id;0x02	Enum: 2: Message Id		
8	3	Presence	PR		Enum: 0x00: Do not display 0x01: Present 0x02: Not present 0x03: Night time reduction 0x04...0x07: not used		

# System Specification

11	5	Figure A Type	TA		Enum: 0x00: Do not display 0x01: Room Temperature °C 0x02: Room Temperature °F 0x03: Nominal Temperature °C 0x04: Nominal Temperature °F 0x05: Delta Temperature Set Point °C 0x06: Delta Temperature Set Point °F 0x07: Delta Temperature Set Point(graphic) 0x08: Time 00:00 to 23:59 [24h] 0x09: Time 00:00 to 11:59 [AM] 0x0A: Time 00:00 to 11:59 [PM] 0x0B: Date 01.01 to 31.12 [DD.MM] 0x0C: Date 01.01 to 12.31 [MM.DD] 0x0D: Illumination (linear) 0 to 9999 lx 0x0E: Percentage 0 to 100 % 0x0F: Parts per Million 0 to 9999 ppm 0x10: Relative Humidity 0 to 100 % rH not used 0x11...0x1F:
16	16	Figure A Value	ZA	Format according to TA: Byte-Order: Little-Endian!	Enum: 0x01...0x07: 0 ... 4000 0.01° 0x08...0x0A: Time 0000 ... 2359 0x0B...0x0C: Date 0101 ... 3112 0x0D: 0 ... 9999 lx 0x0E...0x10: 0 ... 10000 0.01% 0x0F: 0 ... 9999 ppm
32	3	Not Used (= 0)			
35	1	User Notification	Se	optional	Enum: 0x0: Off 0x1: On
36	1	Window	Sd	optional	Enum: 0x0: Closed 0x1: Opened
37	1	Dew-Point	Sc	optional	Enum: 0x0: Warning 0x1: No warning
38	1	Cooling	Sb	optional	Enum: 0x0: Off 0x1: On
39	1	Heating	Sa	optional	Enum: 0x0: Off 0x1: On

# System Specification

## Message Type C / ID 03 (Repeated User Action on RCP)

Direction: Sensor -> Gateway

Fire and Forget

Response: None

Chaining: No

Timing: may only be sent within 5s from latest receipt of a Message Type B

### Message C / ID 03

Original Identifier:	Data[0]	Data[1]	Data[2]	Data[3]
	DB_3	DB_2	DB_1	DB_0
DB_3, BIT_7 ← 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Bit Offset: 0 → 31	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23	24 25 26 27 28 29 30 31
	F	MI PR TA	7 ... ZA ... 0	15 ... ZA ... 8

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	1	Not Used (= 0)					
1	3	Fan	F		Enum:		
					0x00:	no change	
					0x01:	Speed Level 0	
					0x02:	Speed Level 1	
					0x03:	Speed Level 2	
					0x04:	Speed Level 3	
					0x05:	Speed Level Auto	
					0x06...0x07:	not used	
4	1	Not Used (= 0)					
5	3	MsgId	MI	Message Id; 0x03	Enum:		
					3:	Message Id	
8	3	Presence	PR		Enum:		
					0x00:	no change	
					0x01:	Present	
					0x02:	Not present	
					0x03:	Night time reduction	
					0x04...0x07:	not used	
11	5	Set Point A Type	TA		Enum:		
					0x00:	no change	
					not used		
					0x01...0x04:		
					0x05:	Temperature Set Point [°]	
					0x06...0x1F:	not used	
16	16	Set Point A Value	ZA	Format according to TA: 0x05 [0.01°] Byte-Order: Little-Endian!	-1270...+1270	-12.70...+12.70	°



# System Specification

## Message Type D / ID 04 (Measurement Result)

Direction: Sensor -> Gateway  
Fire and Forget  
Response: None  
Chaining: No  
Timing: None

### Message D / ID 04

Original Identifier:	Data[0]	Data[1]	Data[2]
	DB_2	DB_1	DB_0
DB_3.BIT_7 ← 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Bit Offset: 0 → 23	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23
	MI	7 ... VA ... 0	TA 11 ... VA ... 8

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	5	Not Used (= 0)					
5	3	MsgId	MI	Message Id; 0x04	Enum: 4: Message Id		
8	8	Channel A Value	VA (LSB)	Format according to TA: LSB (Bit 7 ... 0)	0...4000	0...40.00	°
16	4	Channel A Type	TA		Enum:		
					0x00: Temperature [°C]		
					0x01...0x0E: not used		
					0x0F: Measurement result not valid		
20	4	Channel A Value	VA (MSB)	See: VA (LSB) MSB (Bit 11 ... 8)			

# System Specification

## Message Type E / ID 05 (Sensor Configuration)

Direction: Gateway -> Sensor  
Reply to Message Type A  
Response: None  
Chaining: Up to 2 messages per chain  
Timing: T2+ = 300ms

Message E / ID 05

Original Identifier:

Data[0]

Data[1]

Data[2]

Data[3]

Data[4]

Data[5]

DB\_5

DB\_4

DB\_3

DB\_2

DB\_1

DB\_0

7

6

5

4

3

2

1

0

7

6

5

4

3

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46

47

MD

MI

6...

SPR

...

SPS

...

TT

...

PR

F

S,TT,4

ST

KA

DB\_5, BIT\_7 ← 0

Bit Offset: 0 → 47

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	4	Not Used (= 0)					
4	1	MoreData	MD		Enum: 0x0: no more data 0x1: more data will follow after T2+		
5	3	MsgId	MI	Message Id; 0x05	Enum: 5: Message Id		
8	1	Not Used (= 0)					
9	7	Set Point Range Limit	SPR	Limit of Set Point Range, absolute value:  REMARK: Set Point Range shall be symmetrical to 0°	Enum: 0x00: Set Point disabled 0,1° ... 12,7° 0x01...0x7F: [0,1°]	0.1...12.7 °	
16	1	Not Used (= 0)					
17	7	Set PointSteps	SPS	Number of Set Point Steps:  REMARK: Specifies the number of equidistant steps between 0 and Set Point Range Limit	Enum: 0x00: Set Point disabled 0x01...0x7F: 1 ... 127	1...127	
24	4	Temperature Measurement Timing	TT (LSB)	Time between two subsequent Temperature measurements  LSB (Bit 3 ... 0)	Enum: 0x00: Temperature measurement disabled 10 ... 600s [10s] 0x01...0x3C: 10...600 s		
28	4	Not Used (= 0)					
32	3	Presence	PR	Number of Presence Levels available to user	Enum: 0x0: Presence disabled 0x1...0x7: 1 ... 7	1...7	
35	3	Fan	F	Number of Fan Speed Levels available to user:	Enum: 0x0: Fan Speed disabled 0x1...0x7: 1 ... 7	1...7	

## System Specification

38	2	Temperature Measurement Timing	TT (MSB)	Time between two subsequent Temperature measurements  MSB (Bit 5 ... 4)			
40	4	Significant Temperature Difference	ST	Difference between two subsequent temperature measurements to trigger a Message Type D [0.2°]	0x0...0xF	0.0...3.0	°
44	1	Not Used (= 0)					
45	3	Keep Alive Timing	KA	Number of measurements (without trigger of a message Type D) between two subsequent "Keep Alive messages":	Enum:		
					0x0:	Transmission of measurement result with each Temperature measurement	
					10 ... 70 measurements		
					0x1...0x7: [step-size 10]	10...70	