EnOcean Equipment Profiles

REVISION HISTORY

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

specification may be used in development of a product or service for sale without being a participant or promoter member of the EnOcean Alliance and/or joint owner of the appropriate joint IPR.

These errata may not have been subjected to an Intellectual Property review, and as such, may contain undeclared Necessary Claims.

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D2-11: Bidirectional Room Operating Panel

TYPE 01,02,03,04,05,06,07,08 *Submitter: Thermokon Sensortechnik GmbH*

TYPE 20 *Submitter: Menred GmbH*

EEP Family Table:

Supported Function ... of Type	01	02	03	04	05	06	07	08	20
Temperature Measurement	X	X	X	X	X	X	X	X	-
Setpoint	X	X	X	X	X	X	X	X	-
Humidity Measurement	-	X	-	X	-	X	-	X	-
Fan Speed	-	-	X	X	X	X	-	-	-
Occupancy	-	-	-	-	X	X	X	X	-
Air Condition / FanCoil	-	-	-	-	-	-	-	-	X
Floor Heating	-	-	-	-	-	-	-	-	X
Fan Ventilation	-	-	-	-	-	-	-	-	X
Temperature Sensor	-	-	-	-	-	-	-	-	X
Humidity Sensor	-	-	-	-	-	-	-	-	-
Blind	-	-	-	-	-	-	-	-	-
Dimming	-	-	-	-	-	-	-	-	-
PIR	-	-	-	-	-	-	-	-	-
LUX	-	-	-	-	-	-	-	-	-

For the types 0x01, 0x03, 0x05, 0x07 the value of DB3 at message type C will be 0 = not available.
For the types 0x01, 0x02, 0x07, 0x08 the value of DB0.3 ... DB0.1 at message type B and C will be 7 = not available.
For the types 0x01, 0x02, 0x03, 0x04 the value of DB0.0 at message type C has to be 0 = not used.

RORG	D2	VLD Telegram
FUNC	11	Bidirectional Room Operating Panel
TYPE	03	Type 0x03 (description: see table)

Submitter: Thermokon Sensortechnik GmbH

Data exchange
Direction: bidirectional (Smart-Ack)
Addressing: broadcast and addressed
Communication trigger: event- & time-triggered
Communication interval: time-triggered (configurable at the device) & event-triggered
Trigger event: keypress
Tx delay: -
Rx timeout: -

Teach-in
Teach-in method: Smart-Ack teach-in without repeater

Security
Encryption required: no
Security level format: -

Product Description
The device represented by this EEP is a "Bidirectional Room Operating Panel with Display". It is powered by solar cell.

It may be equipped with the following features (for details please see the EEP-Family table below):

- Temperature Sensor
- Humidity Sensor
- Temperature Setpoint Adjustment
- Fan Speed Adjustment
- Occupancy-State Adjustment

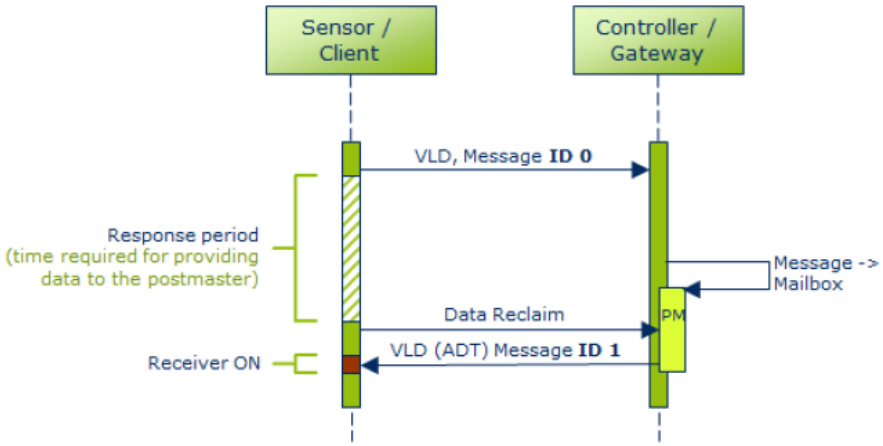
For pairing the bidirectional "Smart Ack Teach-In without repeater" method is used.

The device transmits the actual sensor values periodically (default: 1000 s) or on the event keypress.

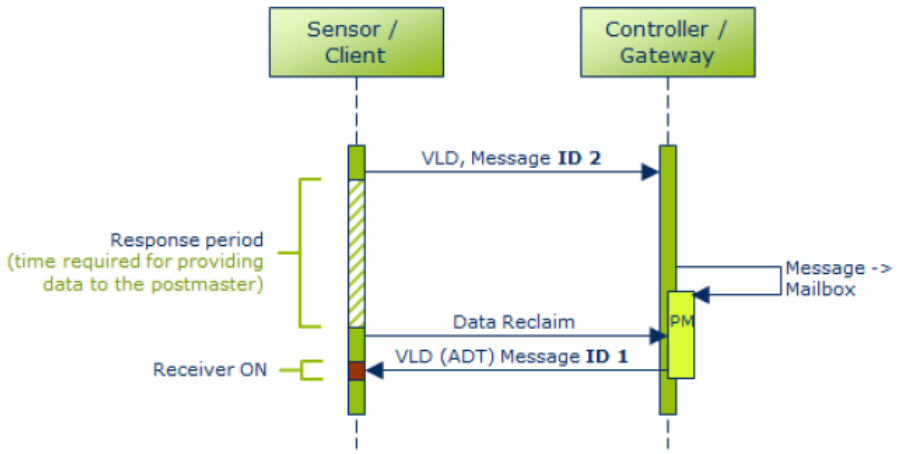
Temperature Sensor, Humidity Sensor
The environmental sensors are updated periodically (adjustable, default: 100 s) and, if there is a change, the updated values will be send immediately.

The Smart Ack functionality will be used for setting display symbols like "window open, heating/cooling, occupancy state" or for overwriting parameters like setpoint, fan speed or occupancy state which are stored at the device.

Communication flow, triggered by a keystroke (first keystroke within inactive state, display state is off):



Communication flow, triggered by an event like temperature- and or humidity change or heartbeat:



Message type A / ID 0 (First switch press after sleep-mode, request new data)

Direction: Sensor -> Gateway

Bit 0.7 indicates which setpoint type is actual used at the device. The difference is made at the visualization of the setpoint (real temperature setpoint (24.5°C) or setpoint shift (+ 3.0°C)) and this information is needed for interpreting the value of DB2 at Message Type C (ID2).

Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	1	Setpoint type	SPT	Setpoint type actual used by the device (temperature correction / temperature setpoint)	Enum: 0: Temperature correction 1: Temperature setpoint		
1	3	Not Used (= 0)					
4	4	Message ID	MID	Message Type A, ID-0	Enum: 0: ID-0 1: ID-1 2: ID-2 3...15: Reserved		

16	8	Basesetpoint	BSP	Set basesetpoint for visualization of the temperature setpoint	Enum: 0...14: Reserved 15...30: 15...30 °C 31...255: Reserved
24	4	Valid temperature correction	COA	Set valid temperature correction	Enum: 0: Reserved 1: -1...1 K 2: -2...2 K 3: -3...3 K 4: -4...4 K 5: -5...5 K 6: -6...6 K 7: -7...7 K 8: -8...8 K 9: -9...9 K 10: -10...10 K 11...15: Reserved
28	3	Fan Speed	OFS	Override actual Fan Speed	Enum: 0: Auto 1: Speed 0 2: Speed 1 3: Speed 2 4: Speed 3 5...6: Reserved 7: Not available
31	1	Occupancy State	OOS	Override actual Occupancy State	Enum: 0: State Unoccupied 1: State Occupied

4	4	Message ID	MID	Message Type B, ID-1	Enum: 0: ID-0 1: ID-1 2: ID-2 3...15: Reserved		
8	8	Temperature correction	OSO	Override Setpoint offset (linear, min. - ... max. +) (valid temperature correction)	0...255	according to **COA**	K

Message type C / ID 2 (Transmit actual data)

Direction: Sensor -> Gateway

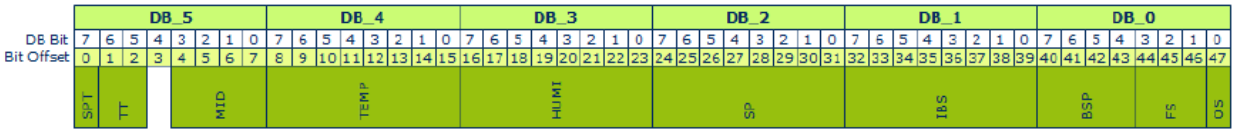
Bit 5.7 indicates which setpoint type is actual used at the device. The difference is made at the visualization of the setpoint (real temperature setpoint (24.5 °C) or setpoint shift (+ 3.0 °C)) and this information is needed for interpreting the value of DB2.

Byte 4 transmits the actual measured temperature.

Byte 2 transmits the actual setpoint shift. How to interpret this value is a combination of Bit 5.7, Byte 1 and Bit 0.7 ... 0.4.
If the actual setpoint type is setpoint shift, then the value of Byte 2 only represents the scaled valid setpoint shift at Bit 0.7 ... 0.4.
If the setpoint type is temperature setpoint, then the temperature setpoint is calculated as sum of the internal basesetpoint at Byte 1 and the scaled valid setpoint shift at Bit 0.7 ... 0.4, transmitted at Byte 2.

Byte 1 transmits the actual, at the device stored, basesetpoint.

Bit 0.7 ... 0.4 transmits the actual valid, at the device stored, setpoint shift.



Offset	Size	Data	ShortCut	Description	Valid Range	Scale	Unit
0	1	Setpoint type	SPT	Setpoint type actual used by the device (temperature correction / temperature setpoint)	Enum: 0: Temperature correction 1: Temperature setpoint		
1	2	Telegram Type	TT	Telegram Trigger	Enum: 0: Heartbeat 1: Change of temperature- or humidity value 2: User caused parameter change		
3	1	Not Used (= 0)					
4	4	Message ID	MID	Message Type C, ID-2	Enum: 0: ID-0 1: ID-1 2: ID-2 3...15: Reserved		
8	8	Temperature	TEMP	Temperature	0...255	0...+40	°C
16	8	Humidity	HUMI	Humidity	0...250	0...+100	%rH
24	8	Setpoint offset	SP	Setpoint shift, linear (refers to valid setpoint shift at DB0.7 ... DB0.4)	0...255	according to **BSB**	K

32	8	Basesetpoint	IBS	Internal basesetpoint, required for setpoint type "temperature setpoint"	Enum: 0...14: Reserved 15...30: °C 15...30 31...255: Reserved
40	4	Valid temperature correction	BSB	Valid temperature correction	Enum: 0: Reserved 1: K -1...1 2: K -2...2 3: K -3...3 4: K -4...4 5: K -5...5 6: K -6...6 7: K -7...7 8: K -8...8 9: K -9...9 10: K -10...10 11...15: Reserved
44	3	Fan Speed	FS	Fan Speed	Enum: 0: Auto 1: Speed 0 2: Speed 1 3: Speed 2 4: Speed 3 5...6: Reserved 7: Not available
47	1	Occupancy State	OS	Occupancy State	Enum: 0: State Unoccupied 1: State Occupied