

D2: VLD Telegram

D2 - 14: Multi Function Sensors

Submitter: EnOcean GmbH

Description

Indoor Smarthome Multisensor

Data exchange

Direction: unidirectional.

EEP Family Table

Each TYPE has to support all telegrams and parameters marked in its column.

Parameters Overview	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
humidity	X	X	-	X	Х	X	-	X	Х	X	X	Х	-	X	X	X
ButtonAl	-	X	 	 ^ -	 ^ -	-	 	-	-	-	-	 	-	X	X	 ^
ButtonBl	+	X	-	╁	 	 	-	-	-	-	ŧ-	-	-	_	-	┢
Voc	+	 -	X	X	 	X	-	-	-	Χ	X	X	-	X	Х	┢
Illumination	-	 	-	 ^ -	X	X	-	-	Х	-	X	-	-	-	-	
Co2	-	 	 	l	 ^ -	-	Х	Х	X	Х	X	 -	Х	-	Х	
Barometer	-	 	 	l	t	t	-	-	-	-	-	 -	-	-	-	Х
Occupancy	-	 	-	-	-	-	-	_	-	_	-	-	_	-	-	
Energy	-	<u> </u>	 	<u> </u>	<u> </u>	 	-	-	-	_	-	l_	-	-	-	t
temperature	X	Х	<u> </u>	Х	x	Х	-	Х	Х	Х	Х	Х	-	X	Х	Х
Button A	-	X	<u> </u>	-	-	-	-	-	-	-	-	-	-	X	X	
Button B	-	X	 	l_	l_	 	-	-	-	_	-	l_	-	-	-	<u> </u>
TVOC	-	-	 -	l_	l_	 	-	-	-	_	-	x	-	-	-	<u> </u>
Presence	-	<u> </u>	 	l-	l_	l_	-	_	-	_	-	-	-	-	 -	
battery	-	<u> </u> -	-	-	-	l-	-	-	-	-	-	-	-	-	-	<u> </u>
ColorTemperature	-	<u> </u> -	-	-	-	<u> </u>	-	-	-	-	-	l-	-	-	-	l-
Smoke Alarm status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u> -
Sensor fault mode status	-	ļ-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
Smoke Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smoke Alarm Condition analysis: Humidity	-	ļ-	-	-	-	-	-	-	-	-	-	ļ-	-	-	-	l-
Smoke Alarm Condition analysis: Temperature	-	ļ-	-	-	-	-	-	-	-	-	-	ļ-	-	-	-	l-
Time since last maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remaining Product Life Time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hygrothermal Comfort Index	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T/Hum. Indoor Air Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm Condition analysis: Maintenance	-	-	-	ļ-	-	-	-	-	-	-	-	-	-	-	-	ļ-
CO Alarm Condition analysis: Humidity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm Condition analysis: Temperature	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Dissolved Oxygen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



EnOcean Equipment Profiles

Parameters Overview	Contact	-	-	-	 -	-	-	-	-	-	-	-	-	-	-	-	-	
Numidity																		
ButtonAl								_						_				
ButtonB	,	X	Х	Х	Х	Х	X	-	Х	-	-	-	Х	Х	Х	-	<u> -</u>	X
Voc		-	-	-	-	-	-	-		-	-	-	-	-	-	-	<u> -</u>	<u> -</u>
Illumination		-	-	-		-			-	-	-	-	-	-	-	-	-	<u> -</u>
Co2 Barometer		Х	-						-				-	-		-	-	
Barometer		-	-	Х	-	Х	Х	-	-	Χ	Х	Х	-	-	Х	-	-	Х
Occupancy	Co2	-	-	-	_		-	-	-	-	-	-	-	-	-	-	-	<u> -</u>
Energy	Barometer		-	-	Χ	Χ	-	-	-	-	-	-	-	-	-	-	-	-
temperature X <th< td=""><td>Occupancy</td><td>Χ</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td> -</td><td>-</td><td> -</td></th<>	Occupancy	Χ	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Button A	Energy	-	Х	Х	Х	Х	Х	Х	Х	Х	Х	-	-	-	-	-	-	-
Button B	temperature	Х	Х	Х	Х	Х	Х	Х	Х	Х	-	-	Х	Х	Х	Х	Х	X
TVOC -	Button A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Presence	Button B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dattery	TVOC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Color Temperature	Presence	Х	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ColorTemperature -	battery	-	Х	Х	Х	Х	Х	Х	Х	Х	Х	-	Х	Х	-	-	-	-
Sensor fault mode status X X		-	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-	-
Smoke Alarm Condition analysis: Maintenance		-	-	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-
Smoke Alarm Condition analysis: Maintenance	Sensor fault mode status	-	-	-	-	-	-	-	-	-	-	-	Х	Х	-	-	-	<u>-</u>
Smoke Alarm Condition analysis: Humidity -	Smoke Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	Х		-	-	-	-
Smoke Alarm Condition analysis: Temperature		-	-	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-
Time since last maintenance -		-	-	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-
Hygrothermal Comfort Index		-	-	-	-	-	-	-	-	-	-	-	Х	Х	-	-	-	-
Hygrothermal Comfort Index	Remaining Product Life Time	-	-	-	-	-	-	-	-	-	-	-	Х	Х	-	-	-	-
T/Hum. Indoor Air Analysis -		-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
CO Alarm status		-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
CO Alarm Condition analysis: Maintenance - <td></td> <td>-</td> <td>X</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>		-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-
CO Alarm Condition analysis: Humidity -		-	1-	1-	-	-	-	-	-	-	-	-	-		1-	1-	1-	<u> -</u>
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Dissolved Oxygen -		-	 -	1-	ļ-	ļ-	 	-	-	-	-	-	-	_	 -	Х	 	<u> -</u>
Acceleration X -		-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	X	<u> -</u>
Acceleration Y -		ļ-	1-	-	-	-	-	-	-	-	-	-	-	-	Х	1-		X
Acceleration Z -		<u> -</u>	<u> -</u>	t-	<u> </u> -	-	<u> </u>	-	-	-	-	-	<u> -</u>	t-		<u> -</u>	<u> </u>	
Acceleration Status X X		<u> -</u>	<u> -</u>	t-	<u> </u> -	-	<u> </u>	-	-	-	-	-	t-	t-		<u> -</u>	<u> </u>	
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RORG	D2	VLD Telegram
FUNC	14	Multi Function Sensors
TYPE	41	Indoor -Temperature, Humidity XYZ Acceleration, Illumination Sensor, Window Contact

Description

This EEP type is for multi sensor in indoor application which can measure high resolution-temperature, humidity, illumination, window contact and absolute acceleration at once. For the acceleration it is possible to configure two thresholds (not part of the EEP) which causes that a telegram is transmitted with the current acceleration. Additionally the sensor is configured to send periodic telegrams. The period can also be configured using other mechanism (e.g. ReCom/NFC or an User Interface).

Data exchange

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EnOcean Equipment Profiles

Direction: to.

Addressing: broadcast.

Communication trigger: event_time_trigger.

Trigger description: change of value (configuration-dependent) over threshold.

Timing description: According to configuration ((non-)autonomous operation, battery status, etc.)

Temperature	Offset	Size	Data	Description	Valid Range	Scale Unit	Trigger
1001 1020 : Reserved 1021 : Out of range negative (<-40°C) 1022 : Out of range positive (>60°C) 1023 : Error 1023 : Error 1023 : Error 1024 : Out of range positive (>60°C) 1023 : Error 1024 : Out of range positive (>60°C) 1023 : Error 1024 : Supported + Invalid 1025 : NotSupported 1025 : NotSupporte	0	10	temperature	Temperature 10	Enum:		
1021					0 1000 :	-40 60 °C	
102 :					1001 1020 :	Reserved	
10					1021 :	Out of range negative (<-40°C)	
10					1022 :	Out of range positive (>60°C)	
18					1023 :	Error	
18	10	8	humidity	Rel. Humidity linear)	Enum:		
18					0 200 :	0 100 %	
18					254 :	Supported + Invalid	
35 2 Acceleration Status Status of the sensor Enum:					255 :	notSupported	
131071 : Error Enum:	18	17	Illumination	Illumination linear)	Enum:		
Status of the sensor					0 100000 :	0 100000 lx	
10					131071 :	Error	
1	35	2	Acceleration Status	Status of the sensor	Enum:		
2 : Threshold 2 exceeded					0:	Periodic Update	
Acceleration X						Threshold 1 exceeded	
10					2:	Threshold 2 exceeded	
1021 : Out of range negative(<-2.5g) 1022 : Out of range positive(>2.5g) 1023 : Error	37	10	Acceleration X	Absolute Acceleration on X axis	Enum:		
1022 : Out of range positive(>2.5g) 1023 : Error					0 1000 :	-2.5 2.5 g	
1023 : Error 1023 : Error 1023 : Error 1023 : Error 1024 : Enum: 1025 : Error 1025 : Error 1026 : Error 1027 : Out of range negative(<-2.5g) 1027 : Out of range positive(>2.5g) 1028 : Error 1028 : Error 1029 : Enum: 1029 : Enum: 1029 : Out of range negative(<-2.5g) 1029 : Error 1029 : Out of range negative(<-2.5g) 1029 : Out of range negative(<-2.5g) 1029 : Out of range negative(<-2.5g) 1029 : Out of range positive(>2.5g) 1029 : Error 102						Out of range negative(<-2.5g)	
Absolute Acceleration on Y axis						Out of range positive(>2.5g)	
1					1023 :	Error	
1021 : Out of range negative(<-2.5g) 1022 : Out of range positive(>2.5g) 1023 : Error	47	10	Acceleration Y	Absolute Acceleration on Y axis			
1022 : Out of range positive(>2.5g) 1023 : Error							
1023 : Error							
57 10 Acceleration Z Absolute Acceleration on Z axis Enum:							
0 1000 : -2.5 2.5 g 1021 : Out of range negative(<-2.5g) 1022 : Out of range positive(>2.5g) 1023 : Error 67					1023 :	Error	
1021 : Out of range negative(<-2.5g) 1022 : Out of range positive(>2.5g) 1023 : Error	57	10	Acceleration Z	Absolute Acceleration on Z axis	Enum:		
1022 : Out of range positive(>2.5g) 1023 : Error							
1023 : Error							
67 1 Contact Contact key Enum: 0: Open 1: Closed						Out of range positive(>2.5g)	
0: Open 1: Closed					1023 :	Error	
1: Closed	67	1	Contact	Contact key			
68 4 Not Used (= 0)					1:	Closed	
	68	4	Not Used (= 0)				

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