

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	X	X	-	X	X	X	X	X	-	X	X	X
ButtonAI	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	X
ButtonBI	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voc	-	-	X	X	-	X	-	-	-	X	X	X	-	X	X	-
Illumination	-	-	-	-	X	X	-	-	X	-	X	-	-	-	-	-
Co2	-	-	-	-	-	-	X	X	X	X	X	-	X	-	X	-
Barometer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
Occupancy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
temperature	X	X	-	X	X	X	-	X	X	X	X	X	-	X	X	X
Button A	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	X
Button B	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TVOC	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-
Presence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
battery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ColorTemperature	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smoke Alarm status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sensor fault mode status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smoke Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smoke Alarm Condition analysis: Humidity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smoke Alarm Condition analysis: Temperature	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Time since last maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remaining Product Life Time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hygrothermal Comfort Index	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T/Hum. Indoor Air Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm Condition analysis: Humidity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Alarm Condition analysis: Temperature	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Indoor Air Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceleration Status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Contact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parameters Overview	10	1A	1B	1C	1D	20	21	22	23	24	25	30	31	40	50	51	41			
humidity	X	X	X	X	X	X	-	X	-	-	-	X	X	X	-	-	X			
ButtonAI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
ButtonBI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Voc	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Illumination	-	-	X	-	X	X	-	-	X	X	X	-	-	X	-	-	X			
Co2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Barometer	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-		
Occupancy	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Energy	-	X	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-		
temperature	X	X	X	X	X	X	X	X	X	-	-	X	X	X	X	X	X			
Button A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Button B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TVOC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Presence	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
battery	-	X	X	X	X	X	X	X	X	X	-	X	X	-	-	-	-	-		
ColorTemperature	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
Smoke Alarm status	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
Sensor fault mode status	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-		
Smoke Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
Smoke Alarm Condition analysis: Humidity	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
Smoke Alarm Condition analysis: Temperature	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
Time since last maintenance	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-		
Remaining Product Life Time	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-		
Hygrothermal Comfort Index	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-		
T/Hum. Indoor Air Analysis	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-		
CO Alarm status	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
CO Alarm Condition analysis: Maintenance	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
CO Alarm Condition analysis: Humidity	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
CO Alarm Condition analysis: Temperature	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
CO	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
CO Indoor Air Analysis	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-		
PH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Dissolved Oxygen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-		
Acceleration X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Acceleration Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Acceleration Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Acceleration Status	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Contact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X		

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

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.)

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