# System Specification



# **EnOcean Equipment Profiles**

## **REVISION HISTORY**

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

Copyright © EnOcean Alliance Inc. (2019). All rights reserved.

The information within this document is the property of the EnOcean Alliance and its use and disclosure are restricted. Elements of the EnOcean Alliance specifications may also be subject to third party intellectual property rights, including without limitation, patent, copyright or trademark rights (such a third party may or may not be a member of the EnOcean Alliance.)

The EnOcean Alliance is not responsible and shall not be held responsible in any manner for identifying or failing to identify any or all such third party intellectual property rights. This document and the information contained herein are provided on an "as is" basis and the EnOcean Alliance disclaims all warranties express or implied, including but not limited to

- (1) any warranty that the use of the information herein will not infringe any rights of third parties (including any intellectual property rights, patent, copyright or trademark rights, or
- (2) any implied warranties of merchantability, fitness for a particular purpose, title or non-infringement.

In no event will the EnOcean Alliance be liable for any loss of profits, loss of business, loss of use of data, interruption of business, or for any other direct, indirect, special or exemplary, incidental, punitive or consequential damages of any kind, in contract or in tort, in connection with this document or the information contained herein, even if advised of the possibility of such loss or damage. All Company, brand and product names may be trademarks that are the sole property of their respective owners.

The above notice and this paragraph must be included on all copies of this document that are made.

The EnOcean Alliance "EnOcean Equipment Profiles definitions" are available free of charge to companies, individuals and institutions for all non-commercial purposes (including educational research, technical evaluation and development of non-commercial tools or documentation.)

This specification includes intellectual property ("IPR") of the EnOcean Alliance and joint intellectual properties ("joint IPR") with contributing member companies. No part of this

EnOcean Equipment Profiles Page 1/4

# enocean°alliance No Wires. No Batteries. No Limits.

# **System Specification**

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.

EnOcean Alliance Inc. 2400 Camino Ramon, Suite 375 San Ramon, CA 94583 USA Graham Martin Chairman & CEO EnOcean Alliance

**EnOcean Equipment Profiles** 

# enocean°alliance No Wires. No Batteries. No Limits.

# **System Specification**

# **D2-0A: Multichannel Temperature Sensor**

## TYPE 00, 01 Submitter: Pressac Communications Ltd

#### Description:

A family of EEP's that needs to transmit multichannel input temperatures simultaneously to minimise the amount of telegrams generated to avoid collisions in multi-use areas and for the efficient use of battery life. The profile type allows a different temperature range and a number of channels to be selected depending on client application.

## Data exchange

Direction: unidirectional Addressing: broadcast

Communication trigger: time-triggered Communication interval: variable

Trigger event: none Tx delay: N/A Rx timeout: N/A

#### Teach-in

Teach-in method: Universal teach-in (UTE)

# Security

Encryption supported: no Security level format: N/A

## **EEP Family Table**

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

| Supported function of TYPE  | 00 | 01  |
|-----------------------------|----|-----|
| Number of channels          | 3  | 3   |
| Sensor type (unit)          | °C | °C  |
| Value range lower limit     | 0  | -20 |
| Value range upper limit     | 80 | 100 |
| Support sensor fault        | Х  | X   |
| Support sensor disconnected | Х  | Χ   |

The list of parameters could be structured following the features that always include a certain group of parameters.

| RORG | D2 | VLD Telegram                    |
|------|----|---------------------------------|
| FUNC | 0A | Multichannel Temperature Sensor |
| TYPE | 01 | Type 0x01                       |

# Submitter: Pressac Communications Ltd

# Notes:

Battery life enumeration is determined by low voltage threshold on processor calculated to give early warning of battery replacement.

## TYPE 01

| Data Byte  | DB_3 |   |   |   |   | DB_2 |   |   |     |   |    |    |    | DB_1 |    |     |    |    |    |    | DB_0 |    |    |     |    |    |    |    |    |    |    |    |
|------------|------|---|---|---|---|------|---|---|-----|---|----|----|----|------|----|-----|----|----|----|----|------|----|----|-----|----|----|----|----|----|----|----|----|
| DB Bit     | 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    | 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 |
| Data       | BL   |   |   |   |   |      |   |   | CH1 |   |    |    |    |      |    | CH2 |    |    |    |    |      |    |    | CH3 |    |    |    |    |    |    |    |    |

EnOcean Equipment Profiles Page 3/4



# System Specification

| Offset | Size | Data         | ShortCut | Description | Valid F | Range        | Scale Ui | nit |
|--------|------|--------------|----------|-------------|---------|--------------|----------|-----|
| 0      | 1    | Battery Life | BL       |             | Enum:   |              |          |     |
|        |      |              |          |             | 0: OK   |              |          |     |
|        |      |              |          |             | 1: LOW  |              |          |     |
| 1      | 7    | Not Used (=  | = 0)     |             |         |              |          |     |
| 8      | 8    | Channel 1    | CH1      | Temperature | Enum:   |              |          |     |
|        |      |              |          |             | 0240:   |              |          | °C  |
|        |      |              |          |             |         |              | -20+100  |     |
|        |      |              |          |             | 241253  | : Reserved   |          |     |
|        |      |              |          |             | 254:    | Fault        |          |     |
|        |      |              |          |             | 255:    | Disconnected |          |     |
| 16     | 8    | Channel 2    | CH2      | Temperature | Enum:   |              |          |     |
|        |      |              |          |             | 0240:   |              |          | °C  |
|        |      |              |          |             |         |              | -20+100  |     |
|        |      |              |          |             | 241253  | : Reserved   |          |     |
|        |      |              |          |             | 254:    | Fault        |          |     |
|        |      |              |          |             | 255:    | Disconnected |          |     |
| 24     | 8    | Channel 3    | СНЗ      | Temperature | Enum:   |              |          | '   |
|        |      |              |          |             | 0240:   |              |          | °C  |
|        |      |              |          |             |         |              | -20+100  |     |
|        |      |              |          |             | 241253  | : Reserved   |          |     |
|        |      |              |          |             | 254:    | Fault        |          |     |
|        |      |              |          |             | 255:    | Disconnected |          |     |

EnOcean Equipment Profiles Page 4/4