Submitter:

Submitting EnOcean Alliance Member: Echoflex Solutions Inc
Membership Level: Participant

Contact Information
Contact Person: Loren Parfitt
E-Mail Address: loren@echoflexsolutions.com
Telephone Number:

Date of Submission: 2018-05-24
Start of TWG Review: 2018-08-02
Date of Approval: 2018-09-27

EEP Version:	**1.2**
Last Change:	**2018-07-11**
Status:	**APPROVED**

Change History :

Date	Version	Author	Description
2018-05-24	1.0	Loren Parfitt	Initial Document
2018-06-25	1.1	Loren Parfitt	Changed Function to 14
2018-07-11	1.2	Loren Parfitt	Minor Error Corrections

EEP Submission

R-ORG	D2	VLD
FUNC	14	Multi Function Sensors
TYPE	50..51	Basic Water Properties Sensor

Description:

The 50 type of this family of profiles will measure Temperature and PH, the 51 type of this family will measure Temperature and Dissolved Oxygen.
Other water quality types could be added to this range of types within the multi-function sensors profile in the future likely in the 52-55 range.

EEP Properties:

<u>Data exchange</u>

Direction: unidirectional

Timeouts: na

<u>Teach-in</u>

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

<u>Security</u>

Encryption supported: no

Security level: na

Telegram Definition:

Type 50:

direction: From
addressing: Broadcast
triggers: Heartbeat and On Change
timing description: 10 seconds minimum, 1000 seconds maximum

Offset	Size	Data	Shortcut	Description	Valid Range	Scale	Unit	trigger
0	9	Temperature	TMP9	Temperature	0…500	0…50	°C	0.5 °C Change
				Status Of Temp Sensor	Enum:			
					501…510 : Reserved			
					511 : Error			
9	8	PH	PH8	PH	0…140	0…14	PH	0.3PH Change
				Status Of Sensor	Enum:			
					141…254 : Reserved			
					255 : Error			

Type 51:

direction: From
addressing: Broadcast
triggers: Heartbeat and On Change
timing description: 10 seconds minimum, 1000 seconds maximum

Offset	Size	Data	Shortcut	Description	Valid Range	Scale	Unit	trigger
0	9	Temperature	TMP9	Temperature	0…500	0…50	°C	0.5 °C Change
				Status Of Temp Sensor	Enum:			
					501…510 : Reserved			
					511 : Error			
9	11	Dissolved Oxygen	DO11	Dissolved Oxygen	0…2000	0…200	%	1% Change
				Status Of Sensor	Enum:			
					2001…2046 : Reserved			
					2047 : Error			

Parameter Overview

The parameter overview table can be added to in the future to support different types with different parameters.

[Parameter Name]		
TYPE	**50**	**51**
TMP9	X	X
PH8 (8bits,0-14PH)	X	-
DO11 (11 bits, 0-200%)	-	X

New Parameters:

Name	ShortCut	Size	Description	Valid Range	Scale	Unit
Dissolved Oxygen	DO11	11	Dissolved Oxygen (linear)	0…2000	0…200	%
			Status of Sensor	Enum: 2000…2046 : Reserved 2047 : Error		

Name	ShortCut	Size	Description	Valid Range	Scale	Unit
PH	PH8	8	PH (linear)	0…140	0…14	PH
			Status of Sensor	Enum: 141…254 : Reserved 255: Error		

Appendix:

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